

Balranald Shire Council

Strategic Plan

Water and Sewerage



Report Number: P-FY2025-PWO-GEN-RP-001-A2

January 2026

Prepared for:



Template Rev 1 July 2024

Report Number: P-FY2025-PWO-GEN-RP-001-A2

Filename: Balranald IWCM Strategy draft 2.docx

Document Control

Version	Author(s)	Reviewer(s)	Approved for issue	
			Name	Date
0 (preliminary)	Glenn Fernandes/Jennifer Blaikie	Glenn Fernandes	Glenn Fernandes	07/11/2025
1 (draft)	M Sundar/Glenn Fernandes	Glenn Fernandes	Glenn Fernandes	20/11/2025
2 (final)	M Sundar/Glenn Fernandes	Glenn Fernandes	Glenn Fernandes	13/01/2026

Glenn Fernandes

Director – Infrastructure Engineering & Advisory

NSW Public Works, 6PSQ, 12 Darcy Street, Parramatta NSW 2150
Locked Bag 5022, Parramatta NSW 2124

T (02) 9769 9735 | M 0421 487 408

E glenn.fernandes@pwa.nsw.gov.au | W www.publicworks.nsw.gov.au

Cover photo: Two Southern bell frogs cutting a log

Source: www.aussietowns.com.au.

© State of New South Wales through Department of Primary Industries and Regional Development 2026.

This publication is copyright and may incorporate material to which an individual maintains moral rights. Other than for the purposes of and subject to the conditions prescribed under the Copyright Act 1968, no part of it may, in any form or by any means, be reproduced, altered, manipulated, stored in a retrieval system or transmitted without prior written consent of the copyright owner or owner of moral rights. Any enquiries relating to consents and use of this publication, including by NSW Government agencies, must be addressed to NSW Public Works.

While this document has been formulated with all due care, the State of New South Wales does not warrant or represent that the document is free from errors or omissions, or that it is exhaustive. The State of NSW disclaims, to the extent permitted by law, all warranties, representations or endorsements, express or implied, with regard to this document including but not limited to, all implied warranties of merchantability, fitness for a particular purpose, or non-infringement. The State of NSW further does not warrant or accept any liability in relation to the quality or accuracy of this document and no responsibility is accepted by the State of NSW for the accuracy, currency, reliability and correctness of any information in this document provided by the client or third parties.

Executive Summary

A Local Water Utility's (LWU) Strategic Plan is its 30-year strategy for the provision of appropriate, affordable, cost-effective, and sustainable urban water services that meet community needs and protect public health and the environment. The key outcomes of a LWU's Strategy are a 30-year Total Asset Management Plan (TAMP) that will establish levels of intervention, a 30-year financial plan and a drought and emergency response contingency plan (DERCP).

Balranald Local Government Area

The Balranald Shire Local Government Area (LGA) is found in Muthi Muthi country in the Riverina region of NSW and covers an area of 21,346 square kilometres. Majority of the population live in the Urban Centre Localities (UCL) of Balranald and Euston which have reticulated water and sewerage. Other localities within the Shire include Kyalite, Hatfield, Penarie, Clare and Oxley. Residents in these localities treat wastewater using On-Site Sewage Management Systems (OSSMS). Drinking water is usually in the form of a rainwater tank or groundwater bores.

Growth Strategy

In addition to the agricultural growth in the region, Balranald is situated in an advantageous location for future renewable energy. A future interstate connector is planned to pass through the area making Balranald an attractive location to develop solar farms. These growth outlooks on renewables hold potential to drive temporary construction worker numbers residing in the town. Permanent residential populations are expected to experience growth. These figures have been adopted from the department of planning. The forecast population for the water supply and sewer serviced areas of Balranald are presented in Table S1

Table S1: Forecast service area population for Balranald

Population group	Population present	2026	2031	2036	2041	2046	2051	2056
Permanent population (DPE 2019)	All year	1,141	1,224	1,365	1,503	1,639	1,774	1,903
Almond full time management population	All year	0	230	230	230	230	230	230
Renewable energy management population	All year	0	70	70	70	70	70	70
Mineral sands management population	All year	0	70	70	70	70	70	70
Ancillary population as result of above	All year	0	230	230	230	230	230	230
Total Permanent population		1,141	1,824	1,965	2,103	2,239	2,374	2,503
Almond Itinerant workers summer peak	Jan – Apr	0	200	200	200	200	200	200
Future almond processing population	Jan – Apr	0	0	230	230	230	230	230
Renewable energy construction workers	All year	0	350	350	350	350	350	0
Mineral sands workforce	All year	0	100	100	100	100	0	0
Total Temporary population		0	650	880	880	880	780	430
Peak Population		1,141	2,474	2,845	2,983	3,119	3,154	2,933

Euston has experienced housing supply pressures due to growth in the local agricultural industries. Two growth profiles were provided and considered for projections with Council's growth strategy reaching the ultimate peak earlier than the DPE projections: Council has indicated that a faster growth profile is more likely to occur due in part to land parcels abutting Euston town site being held in fee simple. Council expects an increase in population driven by the Swan Hill Council's crackdown on informal on-farm accommodation. Jobs are also expected to be created due to

agricultural intensification. The forecast assessments for the water supply and sewer serviced areas of Euston are presented in Table S2 are still considered conservative

Table S2: Forecast service area population for Euston

	2025	2026	2031	2036	2041	2046	2051	2056
Residential	265	276	331	386	461	536	611	686
Non-residential	34	35	36	37	38	39	40	41

Balranald potable and non-potable water supply scheme

Water security

The forecast water requirements for the nominated growth strategy are expected to exceed Council's water access license entitlement. The timing of this exceedance is related to the realisation that growth, especially the growth linked to commencement of the major projects such as renewable energy, solar farms, interstate connectors which will increase the itinerant and permanent workforce.

DCCEEW has undertaken an assessment of climate scenarios on supply shortfalls for town water supplies in the NSW Murrumbidgee Region. The assessment shows that there will be no shortfall in available water supply to meet the future unrestricted annual potable and non-potable demand at Balranald.

Raw water intake

Existing raw water pumping arrangement for Balranald WTP has WHS & Risk and manual adjustment issues. During low flows, the weir pool lowers beyond good access for the intake, and operators must manually extend the foot valve further into the weir pool. A new shared potable and non-potable intake and pump station was assessed as being the preferred option for the intake.

System capacity assessment

The capacity of the non-potable water supply system will not be sufficient to meet the levels of service for the forecast water demands. This can be managed by a combination of reducing the system losses and increasing the raw water pumping capacity.

The capacity of the potable water supply system cannot meet the level of service when supplying the future demand during peak periods. As the mechanical and electrical components of the water treatment plant (WTP) have a residual life of 10 to 15 years, the options assessed include a new WTP upfront or delayed by 10 years. Six options were assessed which included augmentation of WTP and reservoir capacity. The top three options from a triple bottom line assessment are presented in Table S2.

Table S2: Balranald potable scheme capacity augmentation options

Option	Booster pumps	Total reservoir		WTP capacity/staging		WTP Description	Supply reliability during peak day (hrs)		Rank
		Capacity (ML)	Staging	Capacity (ML/d)	Staging		@8am	@12pm	
2A	Yes	1.1 + 1.1	Upfront	New 1.8	2030	Replace WTP	8	8.5	2
2B	Yes	1.1 + 1.1	Upfront	1.1 + New 1.1	2028	Augment existing WTP	8	8.5	1
3A	Yes	1.1	No upgrade	New 2.2	2023	Replace with 2.2ML WTP	3.5	5	3

Euston potable and non-potable water supply schemes

Water security

The forecast water requirements for the nominated growth strategy are expected to exceed Council's water access license entitlement. The timing of this exceedance is related to the realisation of the growth. According to current forecasts this is expected to be around 2030 to 2035.

DCCEEW has undertaken an assessment of climate scenarios on supply shortfalls for town water supplies in the NSW Murray Region. The assessment shows that under the historical scenario there is a 2% likelihood each year of a 6 or more days shortfall where at least 10% of the unrestricted daily demands cannot be met. Under dry future climate this increases to 97 or more days shortfall event where at least 75% of the unrestricted daily demands cannot be met (2% chance). This reduction needs to be considered in the drought contingency planning.

System capacity assessment

The capacity of the non-potable water supply system will not be sufficient to meet the levels of service for the forecast water demands on some days during a peak week. However since the difference is not significant, reducing the system losses would be able to improve the system pressure such that the levels of service could be met.

The capacity of the potable water supply system is not sufficient to meet the levels of service when supplying the forecast future demand. Two options were considered in the scenarios to address this issue:

- Option 1: 0.8ML WTP, duplicate the reservoir and install booster pumps
- Option 2: 0.8ML WTP and augment reservoir

Balranald sewerage scheme

To service the forecast growth, the Balranald STP will require a capacity augmentation both hydraulically and biologically. Two options were considered for the capacity augmentation.

- Option 1: Additional oxidation pond and effluent disposal by evaporation
- Option 2: Additional activated sludge plant and effluent discharge to waterways

Option 1 was taken forward to the scenario.

Euston sewerage scheme

The Euston STP capacity will require an augmentation to service the future growth. The augmented capacity will reclassify Euston STP as a scheduled premise-based activity under the POEO Act Section 36 as the capacity would exceed 2,500 EP. Consequently, Council would need to apply for an EPL.

Considering the existing STP and its performance, duplicating the oxidation pond and adding maturation and evaporation ponds are suggested to meet the peak loading. The construction of new ponds is expected to fit within the same lot boundary, but some minor land clearing may be required. This augmentation would not be required until loading surpasses existing capacity (between 2035 and 2040).

Future Actions and Implementation Plan

Tables S3 and S4 show the bundled Scenario segregated for convenience into water supply and sewerage schemes. The issues that are being addressed by each option are also listed.

Table S3: Water supply scenario – Infrastructure needs

Target for Compliance	Issue	Scenarios		
		1	2	3
Balranald Non-potable water supply scheme				
Condition and criticality of raw water pumping station	Work Health and Safety Issues and inability to access water during low flow in the weir	New shared intake and pumping station		
Meet Level of Service	For the forecast demand the system cannot meet the supply requirements.	Augment capacity of the raw water pumps and rising main to 17 ML/day		
Balranald Potable water supply scheme				
Meet Level of Service	For the forecast demand the system cannot meet the supply requirements.	Option 2A – Booster pump + new 1.1 ML reservoir + new 1.8 ML/d plant in 2 years	Option 2B – Booster pump + new 1.1 ML reservoir + new 0.7 ML/d plant in 2 years (Augmentation)	Option 3A – Booster pump + new 2.2 ML/d plant in 2 years
Euston Potable water supply scheme				
Meet Level of Service	For the forecast demand the system cannot meet the supply requirements.	Option 1 – Stage 1: Booster pump + new 0.5 ML reservoir + new 0.4 ML/d plant. Stage 2: New 0.4ML/d plant in 2042	Option 2 – Stage 1: Booster pump + new 0.9 ML reservoir + new 0.4 ML/d plant. Stage 2: New 0.2ML/d plant in 2045	Option 2 – Booster pump + new 0.9 ML reservoir + new 0.4 ML/d plant in 7 years (Augmentation)

Table S4 – Sewerage scenario – infrastructure needs

Target for Compliance	Issue	Scenarios 1	
		1	2
Balranald sewerage scheme			
Meet performance requirements	Currently there is one oxidation pond and it cannot be de-sludged as there is no alternate pond to receive the sewage during desludging	Construct an additional oxidation pond which will serve as a polishing pond during normal operation and as the primary pond during desludging	
Meet Level of Service	For the forecast load the sewage treatment plant cannot meet the capacity requirements.	Construct an additional 2,000 EP pond to meet the capacity requirements due to growth.	
Euston sewerage scheme			
Meet Level of Service	For the forecast load the sewage treatment plant cannot meet the capacity requirements.	Construct an additional oxidation pond, maturation pond and evaporation area to meet the capacity requirements due to growth.	

Typical residential bill analysis

As part of the assessment of scenarios, approximate annual Typical Residential Bills (TRBs) for the Council's water supply and sewerage services have been estimated by way of setting up financial models for Council's water and sewer funds using FINMOD 4 financial modelling software.

For water supply services, the financial forecasts were made with and without the availability of 90% government grant/ subsidy for the Balranald and Euston WTP capacity upgrade options capital works proposed in the IWCM scenarios after adjusting the raw water customer numbers as equivalent filtered water customers.

Financial forecasts show that the IWCM scenario TRBs for raw and filtered water are the same if government grant/ subsidy is available as expected by the Council (Figure S1). Filtered and raw water TRBs for the IWCM scenarios if the expected levels of grants are not available are shown in Figure S2 and Figure S3 below.

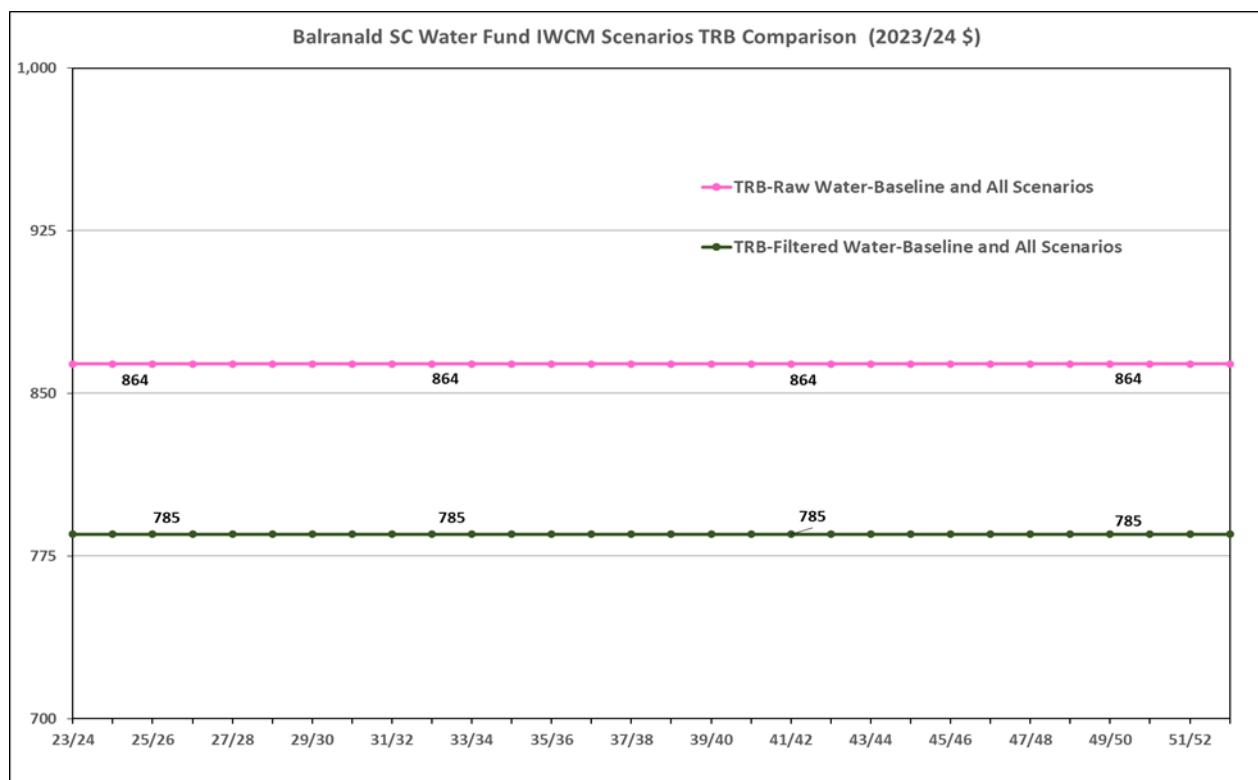


Figure S1: TRB forecasts for IWCM Scenarios with 90% grant – Raw and filtered water supply

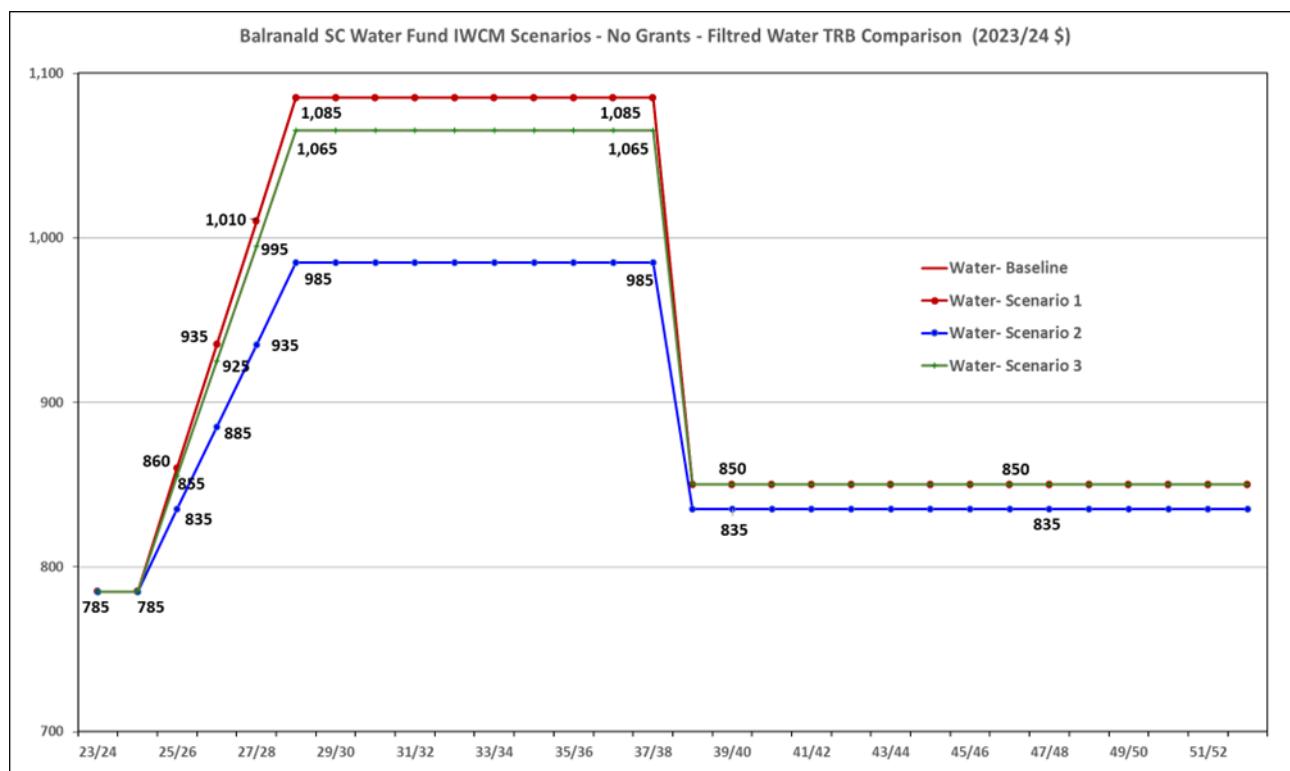


Figure S2: TRB forecasts for IWCM Scenarios without 90% grant – Filtered water supply

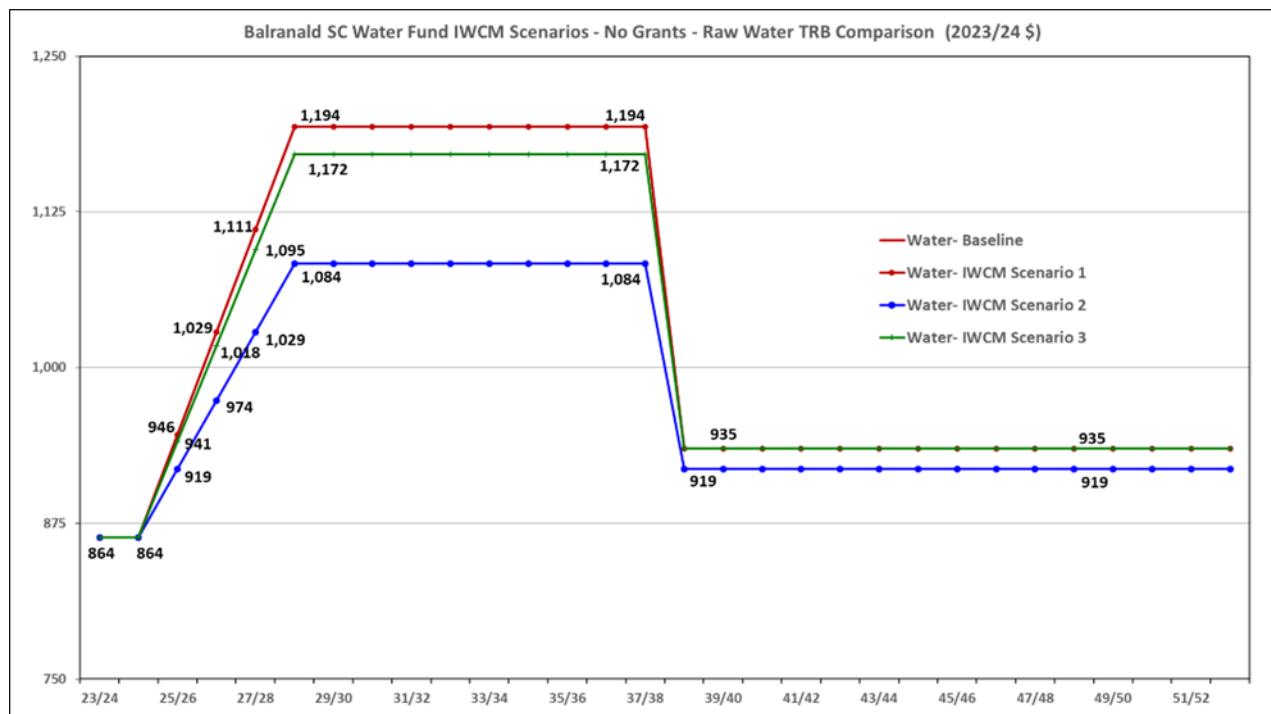


Figure S3: TRB forecasts for IWCM Scenarios without 90% grant – Raw water supply

For sewerage services, the financial forecasts were made with and without the availability of 90% government grant/ subsidy for the Balranald and Euston STP upgrade capital works proposed in the IWCM scenarios. For all the IWCM scenarios, sewerage TRB forecasts are the same for both with and without the availability of expected levels of grant/ subsidy (Figure S4).

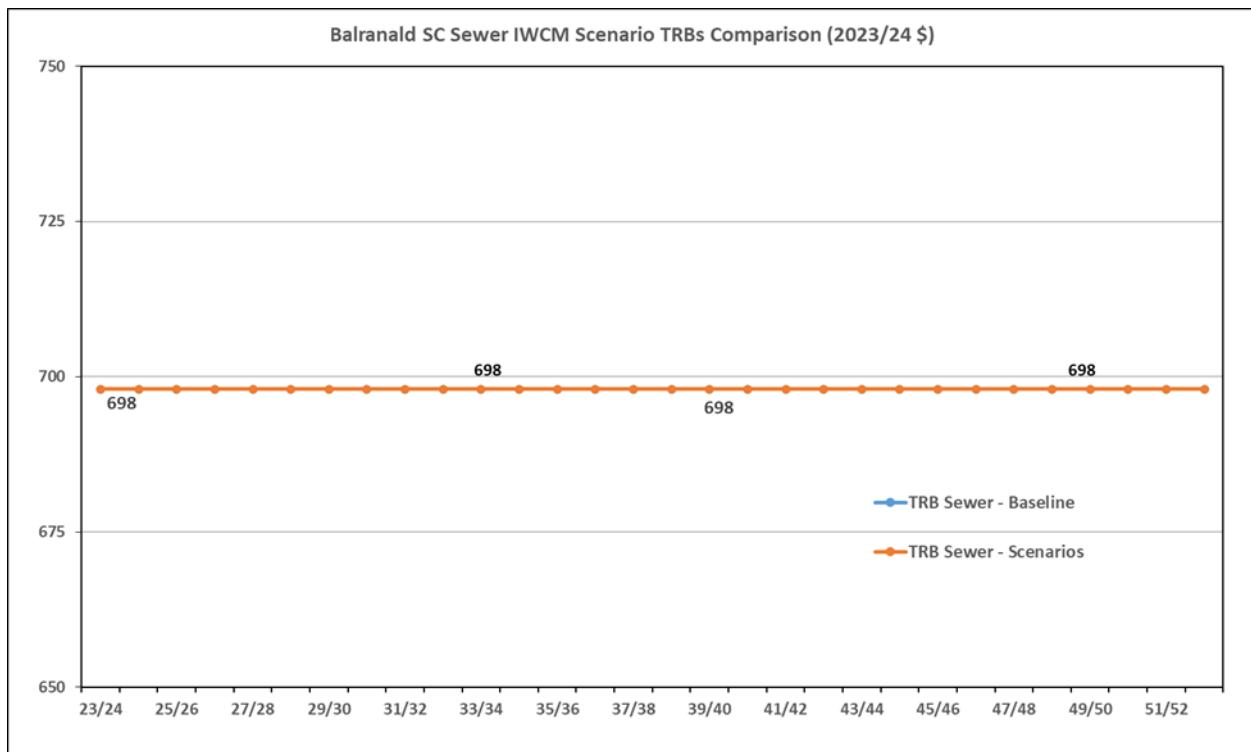


Figure S4: Comparison of TRB forecasts for IWCM Scenarios - Sewerage

The TRB forecasts undertaken as part of the scenario analysis is intended as a means for comparing the IWCM scenarios to support the selection of a preferred scenario. Refer to Section 11 for more details.

Asset Management

Council's Water supply and Sewerage Asset Management Plans provide an overview of the asset management systems, procedures and strategies in place to ensure delivery of services in a safe, reliable and cost-effective manner.

The IWCM scenario 2 has been preferred as the IWCM strategy to address the Council's asset system and performance issues has enabled Council to develop the total asset management plans (TAMP) for water supply and sewerage services over a 30-year planning horizon. The TAMP provides a schedule of capital works into the future with a view to satisfy the forecast service demands in terms of growth, improved levels of service and renewal of existing assets.

The TAMP also provides the details of recurrent operations, and management (O&M) expenditure over a 30-year period. Detailed discussions of TAMP are presented in Section 12.

Long-term Financial Plan

Long-term financial plans (LTFP) for water supply and sewerage funds have been prepared using the TAMPs to set up the financial models. Financial models enable Council to forecast the lowest stable sustainable price path for water supply and sewerage services on which to base Council's tariff

structure. Note, all the forecast values are in 2023-24 dollars unless specified otherwise, and CPI should be applied annually for the forecast years.

Further review and fine tuning of the financial model forecasts for the preferred scenarios (IWCM scenario 2) for water supply and sewerage services has been carried out and required adjustments made in keeping with Council's internal financial planning processes.

Water fund LTFP

The preferred IWCM strategy of Council's water fund financial model considers availability of government grants or subsidy to the tune of \$12.04 Million for the potable water scheme upgrade capital works planned for Balranald and Euston during the 30-year planning horizon.

The model forecasts demonstrate that the 2023-24 levels of the typical residential water bills of \$785 p.a. (\$840 p.a. in 2025-26 dollars) for filtered water, and \$864 p.a. (\$920 p.a. in 2025-26 dollars) for raw water can be maintained for all the remaining forecast period.

Council's water fund had an outstanding borrowing of \$599 K as of 30 June 2023. The model forecasts demonstrate that with the recommended price path, all the planned capital works can be fully funded internally by Council and no new loans will be required.

The projected levels of TRBs is sufficient to maintain liquidity with a minimum level of cash and investment of \$500 K in the water fund throughout the forecast period. The TRB forecasts, levels of cash and borrowing outstandings for the water fund over the 30-year forecast period are presented in Figure S5. For more details of water fund financial model outcomes, refer to Section 13.3.

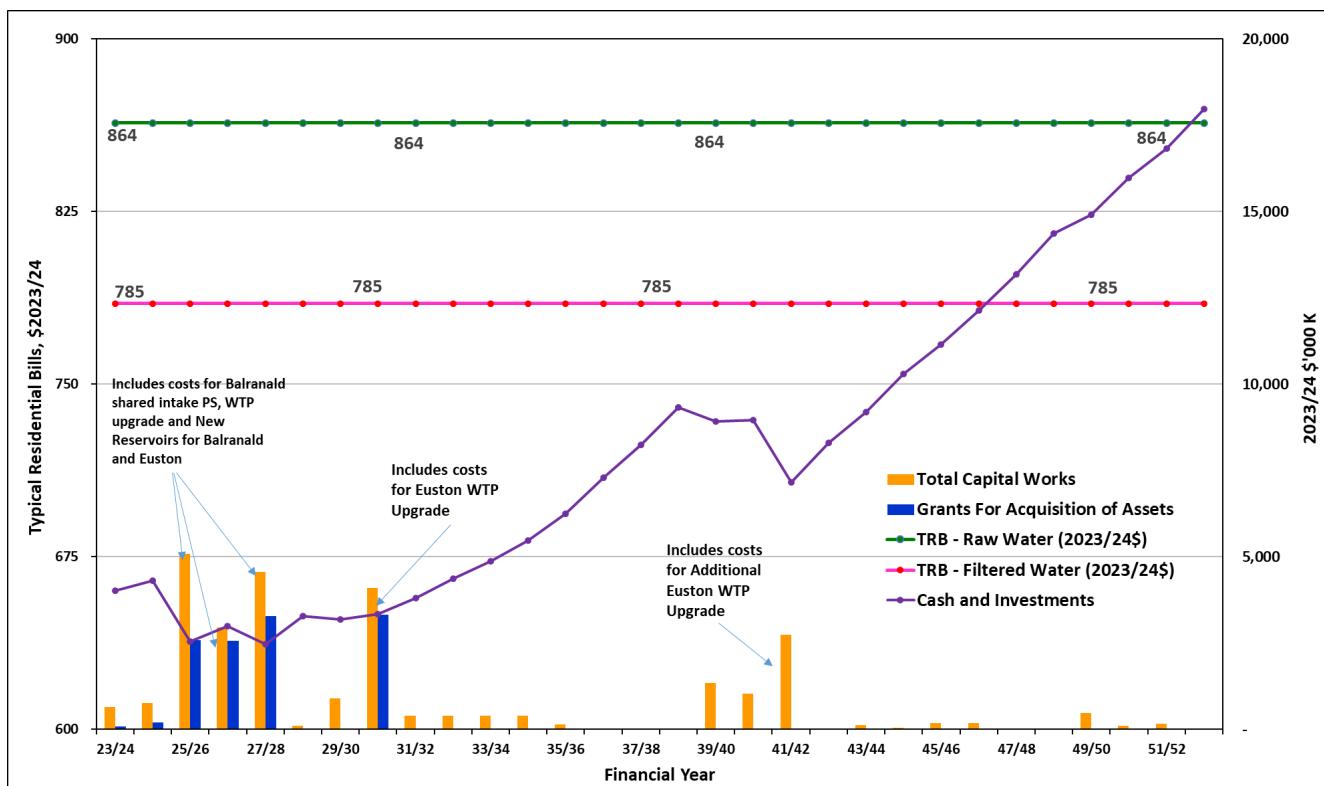


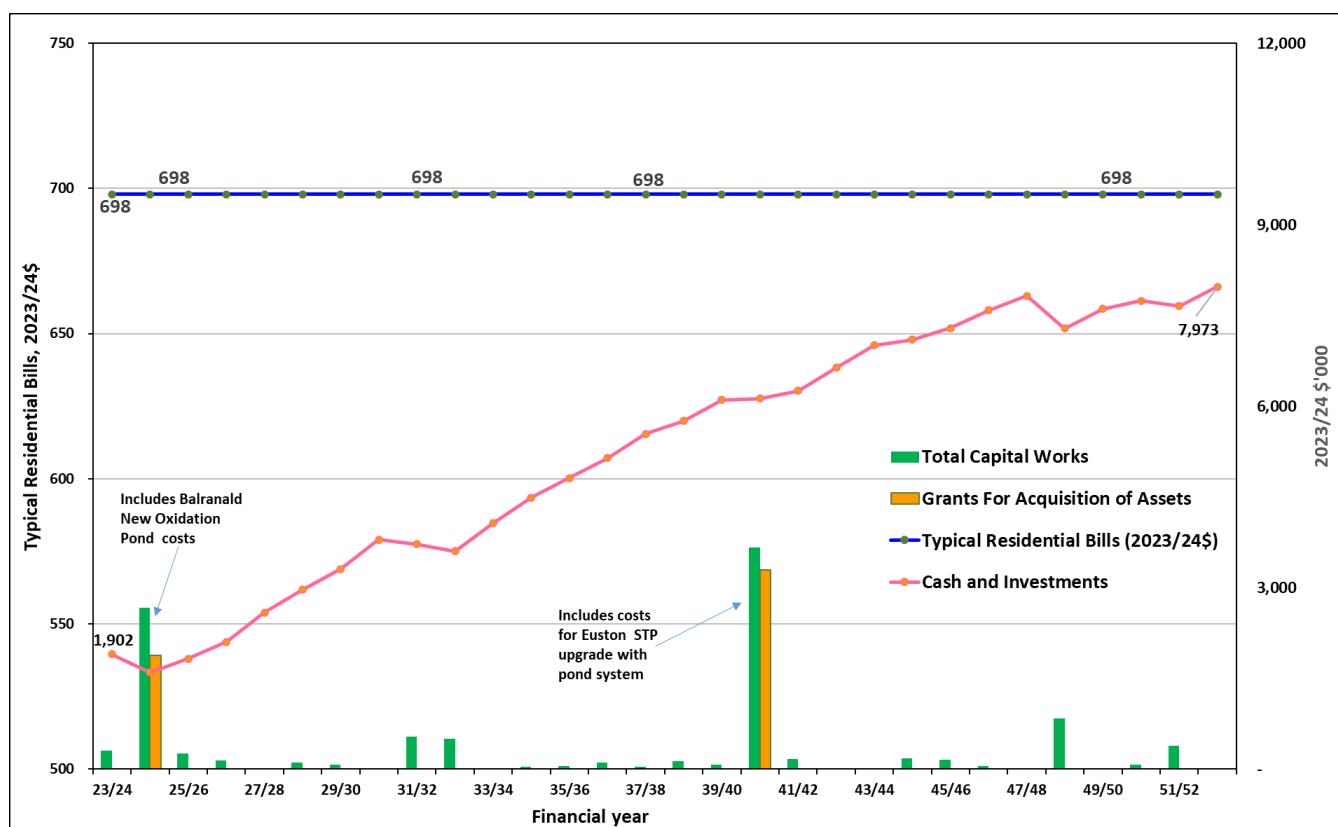
Figure S5: Water fund financial model forecasts summary

Sewer fund LTFP

Council's sewer fund financial model demonstrates that with the availability of 90% government grants or subsidy for the Balranald and Euston STP works planned capital works planned during the forecast period, the 2023-24 annual residential sewerage charge of \$698 p.a. (\$745 p.a. in 2025-26 dollars) can be maintained at that level for all the remaining years of the 30-year forecast period.

Council's sewer fund has no outstanding borrowing as of 30 June 2025. The model forecasts demonstrate that with the recommended price path, all the planned capital works can be funded internally by the Council, and no new loans will be required.

The forecast levels of TRBs is sufficient to maintain liquidity with a minimum level of cash and investment of \$500 K in the sewer fund throughout the forecast period. The levels of cash and borrowing outstandings during the forecast period are presented in Figure S6. For more information on sewer fund financial model forecasts, refer to Section 13.4.



Contents

Executive Summary.....	iii
Abbreviations and Acronyms	xvi
1. Introduction.....	18
2. Strategic context	18
3. Levels of service	19
4. Operating Environment compliance.....	22
5. Growth strategy and population projections.....	24
5.1 Balranald	24
5.2 Euston	25
6. Balranald potable and on-potable water supply.....	26
6.1 Water source	26
6.2 Water treatment	27
6.3 Distribution system.....	28
6.4 Water projections.....	28
6.5 Water security assessment.....	29
6.6 Issues identified and options assessed.....	29
6.6.1 Raw water intake assessment	29
6.6.2 Water quality and treatment assessment.....	30
6.7 System capacity assessment.....	30
6.8 Options assessment.....	30
7. Euston potable and non-potable water supply system.....	31
7.1 Water source	32
7.2 Water treatment	32
7.3 Distribution system.....	33
7.4 Water projections.....	34
7.5 Water security assessment.....	35
7.6 Issues identified and options assessed	35
7.7 System capacity assessment.....	35
7.8 Options assessment.....	35
8. Balranald sewerage scheme.....	36
8.1 Scheme description	36
8.2 Hydraulic loadings.....	37
8.3 Projections.....	37
8.4 Sewage treatment plant.....	38
8.5 Capacity assessment.....	38
9. Euston sewerage scheme.....	40
9.1 Scheme description	40
9.2 Hydraulic loadings.....	40
9.3 Projections.....	41
9.4 Sewage treatment plant.....	41
9.5 Capacity assessment.....	42
10. Future actions and implementation plan.....	43

10.1	Scenario	43
10.2	Present value analysis	44
11.	Typical residential bill analysis	45
11.1	Water Supply TRB Forecasts	47
11.2	Sewerage TRB Forecasts	51
12.	Asset management	53
12.1	Total asset management plan	53
12.1.1	Capital works	53
12.1.2	Recurrent operation and maintenance works	56
13.	Financial plan	58
13.1	Financial model inputs	59
13.1.1	Charges	61
13.1.2	Service provision	61
13.1.3	Funding capital works	62
13.1.4	Performance measures	62
13.2	Assumptions and limitations of the Model	62
13.3	Financial model outcomes – Water supply	63
13.3.1	Projected financial position	63
13.3.2	Sensitivity of financial projections – Water supply	64
13.4	Financial model outcomes – Sewerage	67
13.4.1	Projected financial position	67
13.4.2	Sensitivity of financial projections – Sewerage	69
14.	References	71

Appendix A **Present Value Cost Analysis**
Appendix B **30-year Capital Works Programs – Water Supply**
Appendix C **30-year Capital Works Programs – Sewerage**
Appendix D **Financial Model Input Data**
Appendix E **Financial Model Output Data**

Tables

Table 3-1: Levels of Service – water supply	19
Table 3-2: Levels of Service – sewerage	21
Table 4-1: Operating environment compliance	22
Table 5-1: Growth projections for Balranald	24
Table 5-2: Forecast number of assessments for the Euston service area	25
Table 6-1: Balranald non-potable water supply scheme – demand projections	28
Table 6-2: Balranald potable water supply scheme – demand projections	28
Table 6-3: Balranald raw water intake – remaining useful life	29
Table 6-4: Balranald water treatment plant – remaining useful life	30
Table 6-5: Balranald potable water supply – options assessed	31
Table 6-6: Assessment of Balranald water supply augmentation options	31
Table 7-1: Euston potable water supply scheme – demand projections	34

Table 7-2: Euston potable water supply scheme – demand projections.....	34
Table 8-1: Projected ADWF for the Balranald sewerage scheme.....	38
Table 9-1: Projected ADWF for the Euston sewerage scheme.....	41
Table 10-1: Water supply scenario – infrastructure needs	43
Table 10-2: Sewerage scenario – infrastructure needs	44
Table 10-3: Summary of capital and PV costs for the IWCM Scenario – water supply	44
Table 10-4: Summary of capital and PV costs for the IWCM Scenario – sewerage.....	45
Table 11-1: TRB Forecasts for IWCM Scenarios – Water Supply.....	48
Table 13-1: Key Input Parameters – Water Fund Financial Model.....	59
Table 13-2: Key Input Parameters – Sewer Fund Financial Model	60
Table 13-3: Projected Financial Results – Water supply	65
Table 13-4: Projected Financial Results – Sewerage.....	69

Figures

Figure 1-1: Balranald Shire Local Government Area map.....	18
Figure 5-1: Spatial distribution of growth at Balranald.....	25
Figure 6-1: Balranald raw water supply scheme	26
Figure 6-2: Balranald potable water supply – intake arrangement.....	26
Figure 6-3: Balranald water treatment plant – Aerial view.....	27
Figure 6-4: Balranald water treatment plant – schematic diagram	27
Figure 6-5: Balranald potable water supply – service area.....	28
Figure 7-1: Euston non-potable water supply scheme	32
Figure 7-2: Euston water treatment plant – schematic diagram	33
Figure 7-3: Balranald potable water supply – service area	34
Figure 8-1: Balranald sewerage scheme – service area	36
Figure 8-2: Balranald sewerage scheme – pumping hierarchy diagram.....	37
Figure 8-3: Historical daily inflows at Balranald STP.....	37
Figure 8-4: Aerial view of Balranald sewage treatment plant	38
Figure 8-5: Balranald STP augmentation arrangement	39
Figure 9-1: Euston sewerage scheme – service area	40
Figure 9-2: Euston sewerage scheme – pumping hierarchy diagram.....	40
Figure 9-3: Historical daily inflows at Euston STP.....	41
Figure 9-4: Aerial view of Euston STP.....	42
Figure 9-5: Euston STP augmentation arrangement	43
Figure 11-1: Comparison of 30-year Capital Works Programs – Water Supply.....	45
Figure 11-2: Comparison of 30-year Capital Works Programs – Sewerage	46
Figure 11-3: Comparison of 30-year OMA Costs – Water Supply.....	46
Figure 11-4: Comparison of 30-year OMA Costs – Sewerage	47
Figure 11-5: TRB Forecasts for IWCM Scenarios – Water Supply.....	48
Figure 11-6: Cash Levels Forecasts for IWCM Scenarios – Water Supply	49
Figure 11-7: TRB Forecasts for IWCM Scenarios – No Grants – Filtered Water Supply.....	49
Figure 11-8: TRB Forecasts for IWCM Scenarios – No Grants – Raw Water Supply.....	50
Figure 11-9: New Loans Forecasts for IWCM Scenarios – No Grants - Water Supply	50
Figure 11-10: Cash Levels Forecasts for IWCM Scenarios – No Grants - Water Supply.....	51
Figure 11-11: Comparison of TRB Forecasts for IWCM Scenarios – Sewerage	52
Figure 11-12: Cash Levels Forecasts for IWCM Scenarios – Sewerage.....	52

Figure 12-1: 30-year Capital cost summary – Water supply	55
Figure 12-2: 30-year Capital cost summary – Sewerage	55
Figure 12-3: 30-year Recurrent O&M cost summary –Water supply.....	57
Figure 12-4: 30-year Recurrent O&M cost summary –Sewerage	57
Figure 13-1: Elements of financial modelling	58
Figure 13-2: Typical Residential Bill - Water supply.....	63
Figure 13-3: Cash and borrowing outstandings projections - Water supply	64
Figure 13-4: Sensitivity of TRB forecasts – Filtered water supply	66
Figure 13-5: Sensitivity of TRB forecasts – Raw water supply	66
Figure 13-6: Sensitivity of Cash & Investments – Water supply	67
Figure 13-7: Typical Residential Bill – Sewerage.....	68
Figure 13-8: Cash and borrowing outstandings projections – Sewerage	68
Figure 13-9: Sensitivity of Cash and Investments – Sewerage	70

Abbreviations and Acronyms

Item	Description
\approx or ~	approximately equal to
ΔH	differential head (refer to Glossary)
Δh	Head loss or component differential head (refer to Glossary)
AEP	annual exceedance probability - expressed as a percentage ('% AEP') for events with a frequency $\geq 1\%$, and as '1 in X AEP' for events with a frequency $< 1\%$
AHD or mAHD	Australian Height Datum (in metres)
ADWG	Australian Drinking Water Guidelines
BWL	bottom water level
CH or Ch	chainage
CTF, CtF, or ctf	cease-to-flow – for <i>falling stream</i> , and commence-to-flow – for <i>rising stream</i>
CCPs	Critical Control Points
D/S or d/s	downstream
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DEM and DTM	digital elevation model; and digital terrain model
dia, \emptyset	diameter
DPIF	Department of Primary Industries - Fisheries Division
Dwg	drawing
DWMS	Drinking Water Management System
DSP	Development Services Plan
EP	Equivalent Person
f'c	concrete design characteristic compressive strength after 28 days
FSL	full supply level, and full storage level
GL	gigalitres (1×10^9 L, 1000 ML)
HW and HWL	headwater, and headwater level (refer to Glossary)
L/s or l/s	litres per second
m^3/s or cumecs	cubic metres per second (1 m^3/s is equivalent to 1000 L/s)
ML and ML/d or ML/day	megalitres (1×10^6 L); and megalitres per day (1 $m^3/s = 86.4$ ML/d)
No.	number
nom	nominal
NS and NSL	natural surface, and natural surface level

Item	Description
NSWPW	NSW Public Works
O&M and O&MM	operation and maintenance, and operation and maintenance manual
Q	flowrate or discharge
ref	refer, or reference
RFS and RFT	Request For Services, and Request For Tender
RL	reduced level relative to an established datum (typically AHD)
SWI and SWMS	Safe Work Instruction, and Safe Work Method Statement
tba, tbc, and tbd	to be advised, to be confirmed, and to be determined
T.O.	top of
TW and TWL	Tailwater, and tailwater level (refer to Glossary)
typ	typical
u.n.o. or uno	unless noted otherwise
U/S or u/s	upstream
WAE	work as executed (as constructed/built)
WNSW	WaterNSW
WL and WSL	water level; and water surface level
WLL	working load limit (typically in tonnes or kilograms)
w.r.t.	with respect to

1. Introduction

The Balranald Shire Local Government Area (LGA) is found in Muthi Muthi country in the Riverina region of NSW and covers an area of 21,346 square kilometres. Majority of the population live in the Urban Centre Localities (UCL) of Balranald and Euston. Other localities within the Shire include Kyalite, Hatfield, Penarie, Clare and Oxley. A map of the Balranald Shire is shown in Figure 1-1

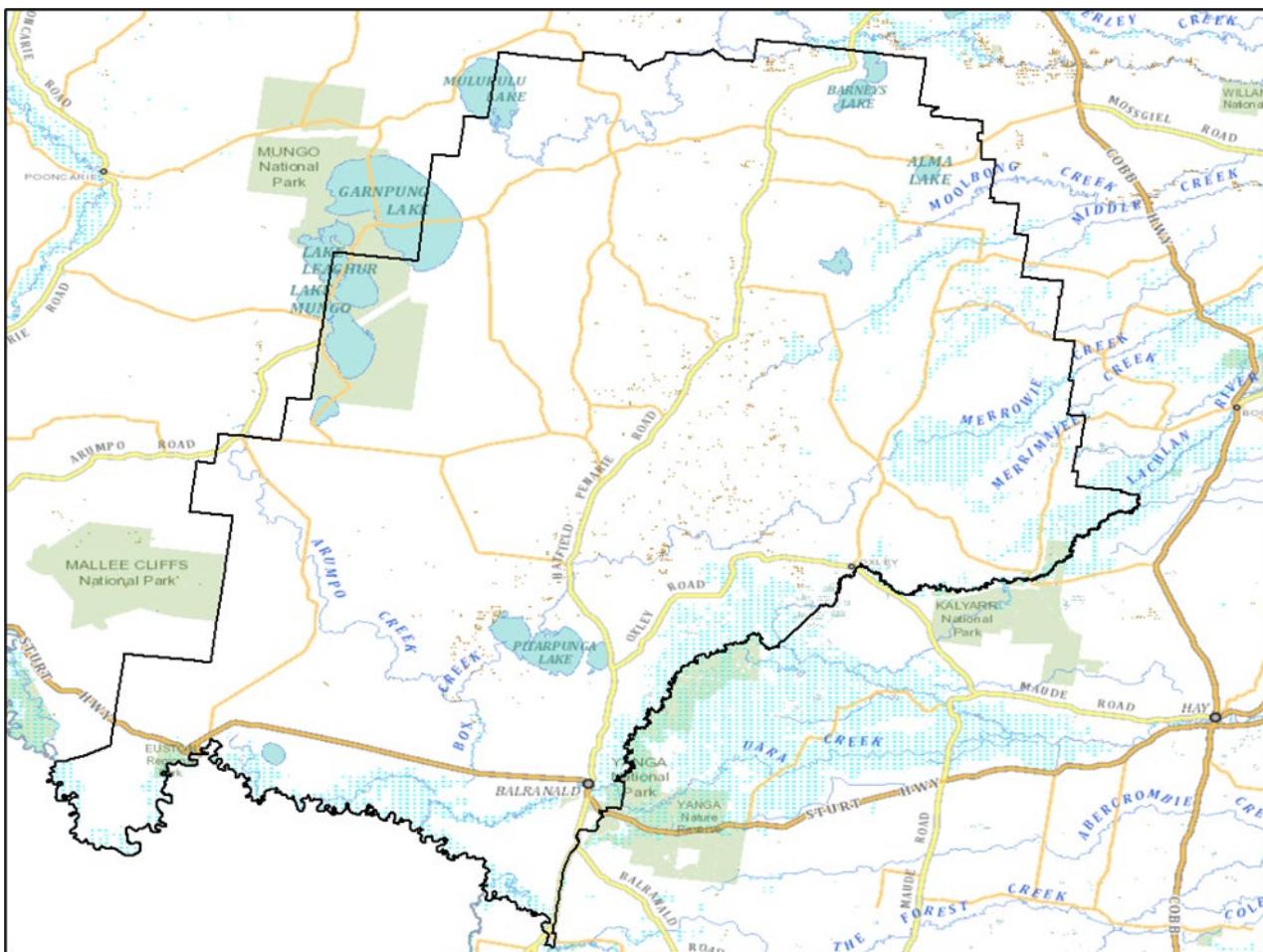


Figure 1-1: Balranald Shire Local Government Area map

The towns of Balranald and Euston have water schemes supplying potable water to inside the home and non-potable water for external uses such as gardening, as well as a reticulated sewer scheme.

The remote villages and rural localities throughout the LGA include Kyalite, Hatfield, Penarie, Clare and Oxley. Residents in these localities treat wastewater using On-Site Sewage Management Systems (OSSMS). Drinking water is usually in the form of a rainwater tank or groundwater bores.

2. Strategic context

A Local Water Utility's (LWU's) Water and Sewerage (W&S) Strategic Plan is a 30-year strategy for the provision of appropriate, affordable, cost-effective, and sustainable urban water services that meet community needs and protect public health and the environment. The Strategy:

- Identifies the water supply and sewerage needs of an LWU;
- Right sizes' any infrastructure projects and determines their priority;

- Identifies the lowest level of stable Typical Residential Bill (TRB) to meet the agreed levels of service;
- Includes a 30-year Total Asset Management Plan (TAMP) and Financial Plan (FP); and
- Identifies strategies to mitigate identified organisation risks such as drought, water quality health-based targets, climate change and community expectations on levels of service.

The nominated growth and Levels of Service (LoS) targets are the key drivers that impact the development of the TAMP. The 30-year financial plan determines the revenue requirements to support the TAMP and forecasts the Typical Residential Bill (TRB) and the Developer Charge (DC) for the preferred strategy. The process is iterative, and an affordable level of service and TRB is determined through community and stakeholder consultation.

3. Levels of service

The LoS framework developed from objectives and targets relevant to the water supply and sewerage management, has been provided in Table 3-1 and Table 3-2. The performance indicators and targets have been nominated by Council. Each objective has one or more Service Standard (or Design Basis) drawn from legislation, best practice guidelines, and industry practice

Table 3-1: Levels of Service – water supply

Objective	Service Standard (Design Basis)	Performance Indicator	Target	Performance
Water Supply Security				
Adequate potable water for current and future generations with reasonable level of restrictions	<p>5/10/10 rule based on 95th percentile dry year demand:</p> <ul style="list-style-type: none"> Duration of water restrictions does not exceed 5% of the time Frequency of water restrictions does not exceed 10% of years (i.e. on average once every 10 years) Severity of water restrictions does not exceed 10%. System must be able to meet 90% of unrestricted demand (i.e. 10% average reduction in consumption due to water restrictions.) 	<ul style="list-style-type: none"> Frequency (average number) of drought related Level 3 restrictions Total percentage duration of drought related restrictions 	<p>Nil non-compliances</p> <p>Nil non-compliances</p>	<p>No water restriction recorded from the production data period provided</p> <p>No water restriction in the last ten years</p>
Projected town water supply extraction is within the upper limit of the water extraction license and meets any license conditions.	Not exceeding the licensed entitlement and any other conditions	Annual volume of water extracted.	Nil exceedance of annual licensed entitlement.	No exceedance from available data
Drinking water quality				

Objective	Service Standard (Design Basis)	Performance Indicator	Target	Performance
Protects public health	<ul style="list-style-type: none"> 100% compliance with the ADWG for health based parameter Compliance with the DWMS 	Number of boil water alerts	0 boil water alerts	No boil water alert for BSC (data from 2020 to 2025) (NSW Health, n.d.)
		Non-compliances reported in annual DWMS audit.	Nil non-compliances	CCP targets are exceeded yearly in Balranald filtered scheme
Aesthetically fit for purpose	Compliance with the ADWG for aesthetic parameters	Number of customer complaints <ul style="list-style-type: none"> Discoloured water complaints Complaints of taste Complaints of odour 	Nil non-compliances	10 water quality complaints per 1,000 properties in 2024/25
Reliability of supply infrastructure				
Limit supply interruptions	Asset condition rating (default rating 2)	Number of unplanned service interruptions due to asset failure:	Nil non-compliances	
		<ul style="list-style-type: none"> Mains breaks 	Less than 10 per 365 days	20 main breaks per 100 km in 2024/25
		<ul style="list-style-type: none"> Unplanned interruptions 	Less than 10 per 365 days	10 unplanned supply interruptions in 2024/25
		<ul style="list-style-type: none"> Duration of interruptions (90%) 	Less than 2 hours per incident	One hour
Maintain Continuous Service Availability	Workforce resourcing	Response time to incidents	One hour	
		<ul style="list-style-type: none"> Water service failure 	Nil non-compliances	No response time recorded.
		<ul style="list-style-type: none"> Report of dirty water 	Nil non-compliances	No response time recorded
Maintain adequate pressure	Treatment and distribution system capacity designed to supply 95 th percentile Peak Day Demand Minimum pressure at connection boundary when delivering 0.15 L/s and meeting the peak day demand. Max static pressure	Number of incidents causing complaints about pressure.	12 m when delivering 0.15 L/s. 25 m	20 complaints regarding pressure were recorded in Council's complaints register for the 2024/25 period

Objective	Service Standard (Design Basis)	Performance Indicator	Target	Performance
Provide adequate firefighting capability	System can supply 15 L/s for 4 hours when supplying peak day demands while maintaining adequate pressure.	Percentage of urban area with firefighting facilities. Percentage of system capable of meeting fire engine requirements.	Sufficient capability to service standard	No data

Table 3-2: Levels of Service – sewerage

Objective	Service Standard (Design Basis)	Performance Indicator	Target	Performance
Reliability of collection and treatment infrastructure				
Maintain Continuous Service Availability	Asset condition rating (default rating 2)	Number of unplanned service interruptions due to asset failure: <ul style="list-style-type: none"> Backup of sewage into properties Overflow due to pump failure Main blockage/collapse 		
		Nil per 365 days	2024/25 0 incidents	
		Nil per 365 days	0 overflow in 2024/25	
		Nil per 365 days	10 breaks and chokes per 100km in 2024/25	
Protect the Environment and Receiving waters				
System Performance	Compliance with the EPL	<ul style="list-style-type: none"> Non-compliances with EPL 	Nil non-compliances	Council does not hold any EPL.
	Contain 8 hours sewage load @ADWF within each SPS	<ul style="list-style-type: none"> Number of overflows @ADWF 	Nil non-compliances	0 overflow in 2024/25
	Rainfall event with a 20% AEP	<ul style="list-style-type: none"> Number of overflows for the selected rainfall event 	Nil non-compliances	0 overflow in 2024/25
	Compliance with biosolids guidelines	<ul style="list-style-type: none"> Non-compliances 	Nil non-compliances	Biosolids remain in oxidation ponds for both Balranald and Euston scheme, neither has been desludged recently.

Objective	Service Standard (Design Basis)	Performance Indicator	Target	Performance
Effluent reuse quality	Comply with the Recycled Water Management System (RWMS)	<ul style="list-style-type: none"> Non-compliance to the RWMS 	No effluent reuse	No effluent reuse
System performance	Minimise odours	<ul style="list-style-type: none"> Number of odour complaints 	Nil non-compliances	No odour complaints in 2024/25

4. Operating Environment compliance

Balranald Shire Council operates two water supply and two sewerage schemes under the Local Government Act (1993). The Local Government Act and several other legislations influence the way in which Council can provide the urban water and wastewater services and have specific implications for the operation of the schemes. Table 4-1 provides the details of the status of compliance with the legislative and regulatory requirements by the Council.

Table 4-1: Operating environment compliance

Key Legislative Framework and their main purposes	Balranald current performance
Local Government Act (1993)	
This Act aims to provide the legal framework for an effective, efficient, environmentally responsible, and open system of Local Government including the provision, management and operation of water supply and sewerage works and facilities. It covers:	
Section 60 (S60) –A council must not, except in accordance with the approval of the Minister for Primary Industries, do any of the following: <ol style="list-style-type: none"> as to works of water supply—construct or extend a dam for the impounding or diversion of water for public use or any associated works (not applicable), as to water treatment works—construct or extend any such works, as to sewage—provide for sewage from its area to be discharged, treated, or supplied to any person, as to flood retarding basins prescribed by the regulations—construct or extend any such basins. 	Balranald and Euston STP have been in operation prior to 1993, hence the need to obtain a Section 60 approval does not apply. Council does not have an effluent reuse program, hence does not require Section 60 approval
Section 61 – The Minister for Primary Industries or a person authorised by the Minister may direct a council to take such measures as are specified in the direction to ensure the proper safety, maintenance and working of any of the following works: <ol style="list-style-type: none"> dams for the impounding or diversion of water for public use or any associated works, water treatment works, sewage treatment works. 	No directions have been made
Section 64 – As a precondition to granting a certificate of compliance for development, a water supply authority may, by notice in writing served on the applicant, require the applicant to do either or both of the following: <ol style="list-style-type: none"> to pay a specified amount to the water supply authority by way of contribution towards the cost of such water management works as are specified in the notice, being existing works or projected works, or both, to construct water management works to serve the development. 	Council does not have a DSP, however has Developer Contributions.

Key Legislative Framework and their main purposes	Balranald current performance
Section 68 – Provide an approval to applications to discharge trade waste to Council's sewerage system	No trade waste policy available Council has future plans implement a policy .
Section 382 – Insurance against liability: <ul style="list-style-type: none"> • A Council must decide for its adequate insurance against public liability and professional liability. 	Council has insurance against public liability, professional indemnity, property protection and motor vehicle insurance under Section 382 of the Act.
Environmental Planning and Assessment Act (1979) (incl. the EPA Regulation 2000).	
This Act aims to encourage proper management of resources, the orderly use of land, the provision of services, and the protection of the environment. It covers: <ul style="list-style-type: none"> - Local Environmental Plans (LEP) - Environmental Impact Statement (EIS) - Reviews of Environmental Factors (REF) 	These legislative and regulatory requirements are generally met by Council.
Public Health Act (2010)	
This Act aims to promote, protect and improve public health; by providing safe drinking water to the community. Section 25 – a supplier of drinking water must have a quality assurance program in place and must comply with its requirements. A Drinking Water Management System (DWMS) satisfies this requirement. The requirements of the DWMS are as follows: <ul style="list-style-type: none"> - Produce an annual report to be made available to consumers, regulatory authorities and stakeholders - The DWMS will be internally reviewed. The review will assess Council's performance in relation to: <ul style="list-style-type: none"> ▪ CCPs and their exceedances ▪ Improvement Plan ▪ Record keeping ▪ NSW Health Database performance 	Council has a DWMS and completes annual returns Council as of 2024/25 use Water Services Association Australia Codes (WSAA).
Water Management Act (2000) and Water Act (1912)	
This Act promotes the sharing of responsibility for the sustainable and efficient use of water between the NSW Government and end users and provides a legal basis to manage NSW water planning, legal allocation of water resources and water access entitlements.	Council extracts water from Murrumbidgee and Murray rivers.
Protection of the Environment Operations Act (1997)	
Section 43 Environment protection licenses may be issued to authorise the carrying out of scheduled activities at any premises, as required under section 48,	Council does not require EPLs for the operation of their STPs.
This clause applies to sewage treatment, meaning the operation of sewage treatment systems that involve the discharge or likely discharge of wastes or by-products to land or waters	
Work Health and Safety Act 2011 and WHS Regulation 2011	
To provide for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces. Under the Act, for Workplace Management, Council has a duty to: <ul style="list-style-type: none"> • Identify hazards • Manage risks to health and safety • Implement, maintain and review risk control measures. 	Council is compliant
Fluoridation of Public Water Supplies Act (1957)	

Key Legislative Framework and their main purposes	Balranald current performance
This Act covers the addition of fluoride to public water supply under the NSW Fluoridation Code of Practice.	The Balranald filtered water supply is fluoridated. Euston filtered water supply is not fluoridated.
Dam Safety Act 1978	
Under this Act, the owner of any dam listed as a prescribed dam must meet the requirements of the NSW Dams Safety Committee (DSC). The DSC assigns dams a consequence category relative to their dam failure consequence, and this determines the level of reporting and type of actions required by the dam owner as part of their Safety Management System (SMS).	Council does not operate any prescribed dams. Hence, the Dam Safety Act 1978 does not apply to Council.

5. Growth strategy and population projections

5.1 Balranald

In addition to the agricultural growth in the region, Balranald is situated in an advantageous location for future renewable energy. A future interstate connector is planned to pass through the area making Balranald an attractive location to develop solar farms. Already, there are two large scale solar farms operating south of Balranald. These growth outlooks on renewables hold potential to drive temporary construction workers numbers residing in the town.

Permanent residential populations are expected to experience growth. These figures have been adopted from the department of planning. The large increases in population will require significant housing developments and rezoning of available land to provide suitable housing stock. Population projections as provided by Council are shown in Table 5-1.

Table 5-1: Growth projections for Balranald

Population group	Population present	2026	2031	2036	2041	2046	2051	2056
Permanent population (DPE 2019)	All year	1,141	1,224	1,365	1,503	1,639	1,774	1,903
Almond full time management population	All year	0	230	230	230	230	230	230
Renewable energy management population	All year	0	70	70	70	70	70	70
Mineral sands management population	All year	0	70	70	70	70	70	70
Ancillary population as result of above	All year	0	230	230	230	230	230	230
Total Permanent population		1,141	1,824	1,965	2,103	2,239	2,374	2,503
Almond Itinerant workers summer peak	Jan – Apr	0	200	200	200	200	200	200
Future almond processing population	Jan – Apr	0	0	230	230	230	230	230
Renewable energy construction workers	All year	0	350	350	350	350	350	0
Mineral sands workforce	All year	0	100	100	100	100	0	0
Total Temporary population		0	650	880	880	880	780	430
Peak Population		1,141	2,474	2,845	2,983	3,119	3,154	2,933

An overview of the spatial distribution of the growth is shown in Figure 5-1. An additional 66 lots could be available in the greenfield space just north of the Balranald Accommodation Village (BAV), but this is reserved for a duplication of the BAV. The duplication of the BAV is required to provide sufficient

accommodation for temporary and itinerant workers. The strategy assumes all additional construction and itinerant workers will be housed in the BAV.

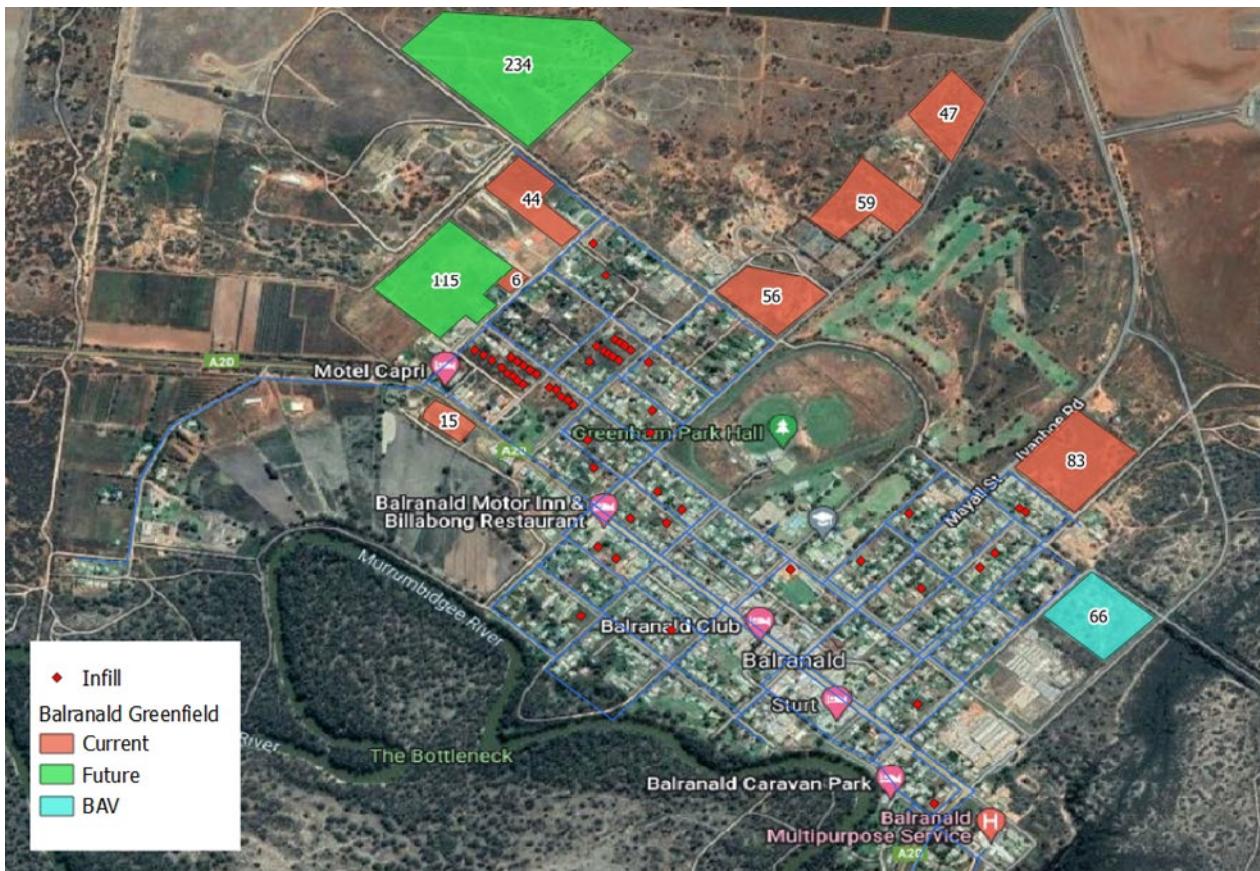


Figure 5-1: Spatial distribution of growth at Balranald

5.2 Euston

Euston has experienced housing supply pressures due to growth in the local agricultural industries. Growth profiles were researched and Council has indicated that a faster population growth is more imminent. Council expects an increase in population driven by the Swan Hill Council's crackdown on informal on-farm accommodation. Jobs are also expected to be created due to agricultural intensification. In addition; land surrounding the Euston town site is held in fee simple.

Based on this, Council has forecasted future growth for the Euston service area as follows:

- First ten years, starting 2026: 11 new lots/year
- Following fifteen years: 15 new lots/year

The forecast number of water and sewer assessments for the Euston service area is provided in

Table 5-2: Forecast number of assessments for the Euston service area

	2025	2026	2031	2036	2041	2046	2051	2056
Residential	265	276	331	386	461	536	611	686
Non-residential	34	35	36	37	38	39	40	41

6. Balranald potable and on-potable water supply

The Balranald Raw Water Supply System (BRWSS) provides non-potable water to the town of Balranald for external use. A diagram of the scheme is shown in Figure 6-1.

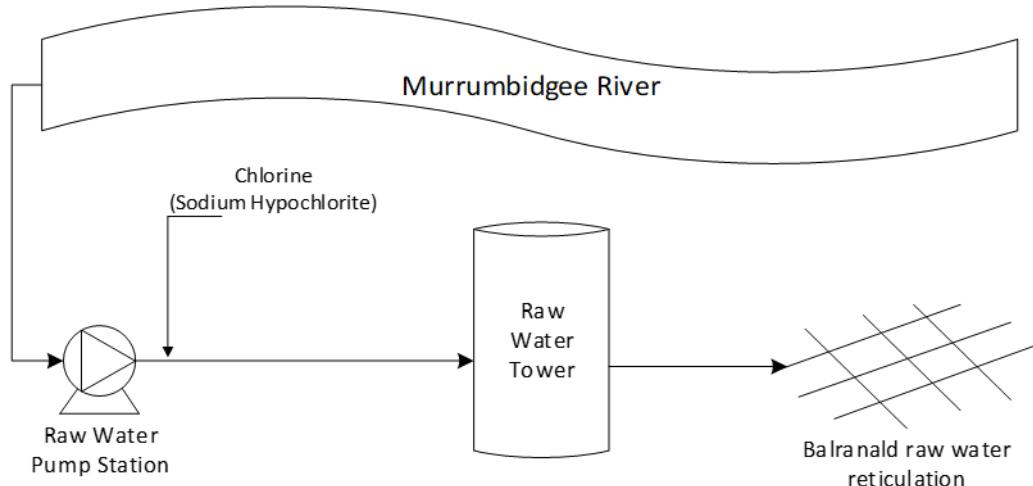


Figure 6-1: Balranald raw water supply scheme

Council has as of 2025/26 dispensed with sodium hypochlorite and replaced this with Chlorine gas.

6.1 Water source

The raw water is extracted from the Murrumbidgee River. The raw water intake structure is located 40m downstream of the potable water intake

The potable water river intake is located down a steep bank with no access path as shown in Figure 6-2. When the water level in the River is low, Council must extend the intake to the centre of the river to access water. This cannot be done in a safe manner with the current access to the intake.



Figure 6-2: Balranald potable water supply – intake arrangement

6.2 Water treatment

Raw water is disinfected using chlorine gas and pumped to the raw water tower from where it gravitates through the non-potable reticulation system. The raw water tower is the only water storage in the distribution system.

The Balranald water treatment plant is a conventional filtration plant built in 1988 with a design capacity of 1.1 ML/day (14 L/s over 22 hours). An aerial view and the schematic diagram of the WTP are provided in Figure 6-3.



Figure 6-3: Balranald water treatment plant – Aerial view

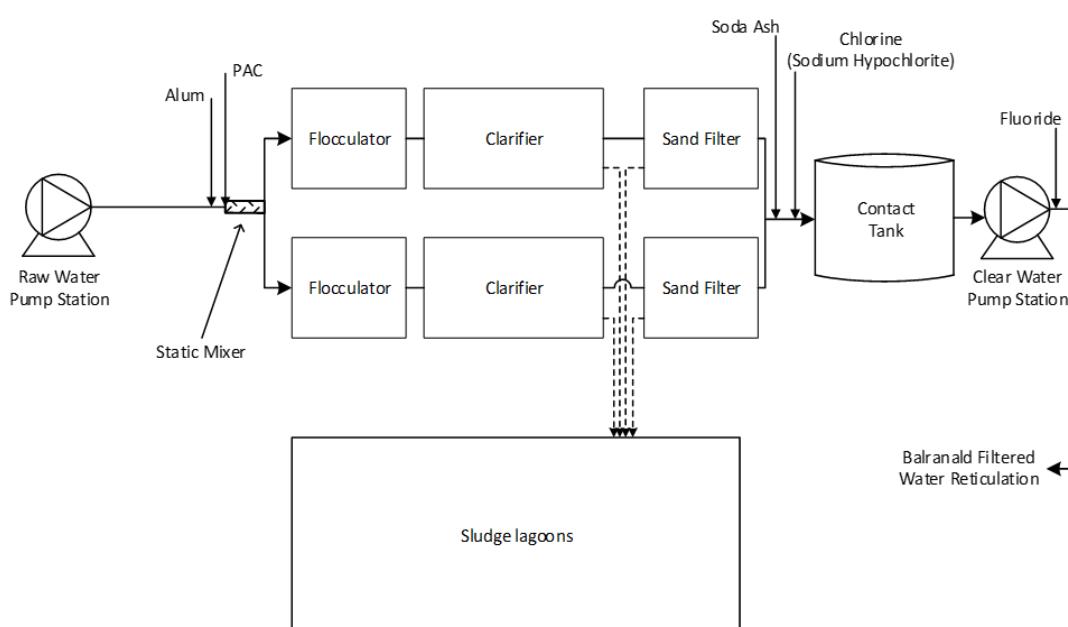


Figure 6-4: Balranald water treatment plant – schematic diagram

Council has dispensed with sodium hypochlorite and replaced this with Chlorine gas.

6.3 Distribution system

Following treatment, water is pumped to the filtered water tower. The 1.1 ML filtered water tower is the only water storage in the distribution system. It was originally built in 1963 as a raw water reservoir but converted to a potable water reservoir in 1985. Water gravitates to the town from the tower. The potable water service area is shown in Figure 6-5.

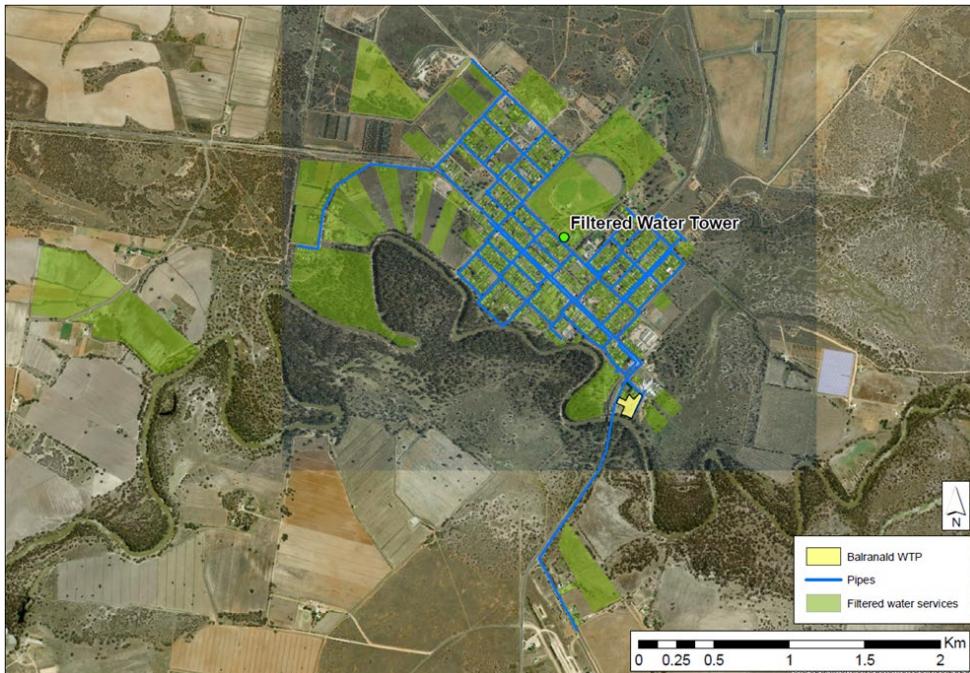


Figure 6-5: Balranald potable water supply – service area

6.4 Water projections

Projections of the average year demand are used for revenue planning, unrestricted dry year demand for sizing of headworks, and peak day production for sizing of water treatment works, reservoirs and pumping facilities. These projections for the potable and non-potable water supplies, corrected for future climate change, are provided in Table 6-1 and Table 6-2.

Table 6-1: Balranald non-potable water supply scheme – demand projections

	2018	2019	2024	2029	2034	2039	2044	2049
Current Climate								
Average year (ML)	522	597	890	969	970	971	972	972
Dry year (95th%ile) (ML)	688	788	1,183	1,289	1,290	1,292	1,293	1,293
Peak day (ML)	9.9	11.5	17.7	19.4	19.4	19.5	19.5	19.5

Table 6-2: Balranald potable water supply scheme – demand projections

	2018	2019	2024	2029	2034	2039	2044	2049
Current Climate								
Average year (ML)	177	209	338	373	373	373	374	374
Dry year (95th%ile) (ML)	187	222	359	396	396	397	397	397

	2018	2019	2024	2029	2034	2039	2044	2049
Peak day (ML)	1.1	1.3	2.2	2.4	2.4	2.4	2.4	2.5

6.5 Water security assessment

The water security assessment for a water supply scheme considers the following:

- That Council's Water Access Licence (WAL) entitlement is sufficient to supply the 30-year forecast unrestricted annual demand
- The secure yield of the headworks is sufficient to supply the 30-year forecast unrestricted annual demand and provide drought resilience

License entitlement

The forecast water requirements for the nominated growth strategy are expected to exceed Council's water access license entitlement. The timing of this exceedance is related to the realisation of the growth, especially the growth linked to the commencement of the major projects such as renewable energy, solar farms, interstate connectors which increase the itinerant and permanent workforce.

Drought reliability

DCCEEW has undertaken an assessment of climate scenarios on supply shortfalls for town water supplies in the NSW Murrumbidgee Region. The assessment shows that there will be no shortfall in available water supply to meet the future unrestricted annual demand.

6.6 Issues identified and options assessed

6.6.1 Raw water intake assessment

This existing raw water pumping arrangement for Balranald WTP has WHS and manual adjustment issues. During low flows, the weir pool lowers beyond good access for the intake, and operators must manually extend the foot valve further into the weir pool. The criticality adjusted remaining useful life shown in Table 6-3.

Table 6-3: Balranald raw water intake – remaining useful life

Asset	Condition Adjusted Remaining Useful Life	Criticality Rating	Criticality Adjusted Remaining Useful Life
Raw Water Pump Station Civil Works	27	5.0	22
Raw Water Pump Station Mech and Elect Works	1	5.0	0

The following options were assessed to provide a new intake and pumping arrangement:

- New pump on a floating pontoon
- New intake and wet well with submersible pumps
- New intake with draft tubes and submersible turbine pumps
- New shared potable and non-potable intake and pump station

The new shared potable and non-potable intake and pump station was assessed as being the preferred option.

6.6.2 Water quality and treatment assessment

A condition assessment of the Balranald water treatment plant was undertaken. The condition and criticality adjusted useful life of the water treatment plant is presented in Table 6-4.

Table 6-4: Balranald water treatment plant – remaining useful life

Asset	Condition Adjusted Remaining Useful Life	Criticality Rating	Criticality Adjusted Remaining Useful Life
Treatment Plant Civil Works	38	5.0	32
Treatment Plant Electrical Works	1	5.0	0
Pump Station Civil Works	27	5.0	22
Pump Station Mech and Elect Works	16	5.0	13
Fluoridation Plant Civil Works	49	5.0	41
Fluoridation Plant Mech and Elect Works	25	5.0	21

Based on the condition assessment of the plant, there are two sub-options to augment the capacity of the plant:

1. Refurbish the existing plant and construct a new process train to provide the additional capacity.
2. Abandon the existing plant and construct a new plant.

6.7 System capacity assessment

Non-potable water supply

The system capacity will not be sufficient to meet the levels of service for the forecast water demands. This can be managed by a combination of reducing the system losses and increasing the raw water pumping capacity. If a combined new intake is constructed, the increased raw water pumping capacity should be considered in the sizing of the new pumps and the new common raw water rising main to the potable and non-potable water supply. An allowance is provided in the asset management plan.

Potable water supply

An analysis of the system capacity showed that the reservoir drawdown, when supplying future demands during peak periods, resulted in not meeting the minimum service pressure to the customers.

6.8 Options assessment

Options to augment the potable water supply system capacity include upgrading the WTP capacity and providing either additional reservoir storage or booster pumps to meet the levels of service. A summary of all the sub-options assessed is presented in Table 6-5.

Table 6-5: Balranald potable water supply – options assessed

Option	Booster pumps	Total reservoir		WTP capacity/staging		WTP Description	Supply reliability during peak day (hrs)	
		Capacity (ML)	Staging	Capacity (ML/d)	Staging		@8am	@12pm
1A	Yes	1.1 + 5	Upfront	New 1.4	2031	Deferred replacement WTP	29.5	30.5
1B	Yes	1.1 + 5	Upfront	1.1 + New 0.3	2031	Deferred augmentation	29.5	30.5
2A	Yes	1.1 + 1.1	Upfront	New 1.8	2030	Replace WTP	8	8.5
2B	Yes	1.1 + 1.1	Upfront	1.1 + New 1.1	2028	Augment existing WTP	8	8.5
3A	Yes	1.1	No upgrade	New 2.2	2023	Replace with 2.2ML WTP	3.5	5
3B	Yes	1.1	No upgrade	1.1 + New 1.1	2023	Duplicate WTP	3.5	5

A triple bottom line assessment was undertaken to rank the options that were developed. The criteria and their weightings, with a score for each option, is provided in Table 6-6.

Table 6-6: Assessment of Balranald water supply augmentation options

Criteria	Weighting (%)	1A	1B	2A	2B	3A	3B
Maintain continuity of supply during interruption	0.30	5	5	3	3	2	2
Allows for adaptive planning	0.35	5	5	3	3	1	1
Reliability of WTP	0.20	3	2	5	2	5	2
Improves automation and control to comply with the DMS	0.15	3	2	5	2	5	2
Total Score		4.3	4.0	3.7	2.7	2.7	1.65
30 year – present value cost (\$M)		15.4	15.4	9.8	6.8	8.9	5.5
Triple Bottom Line Score		0.28	0.26	0.38	0.40	0.30	0.30
Rank		5	6	2	1	3	3

Option 2A, 2B and 3A were taken forward to the scenario development.

7. Euston potable and non-potable water supply system

The Euston Raw Water Supply System (ERWSS) provides non-potable water to the town of Euston for external use. A diagram of the scheme is shown in Figure 7-1.

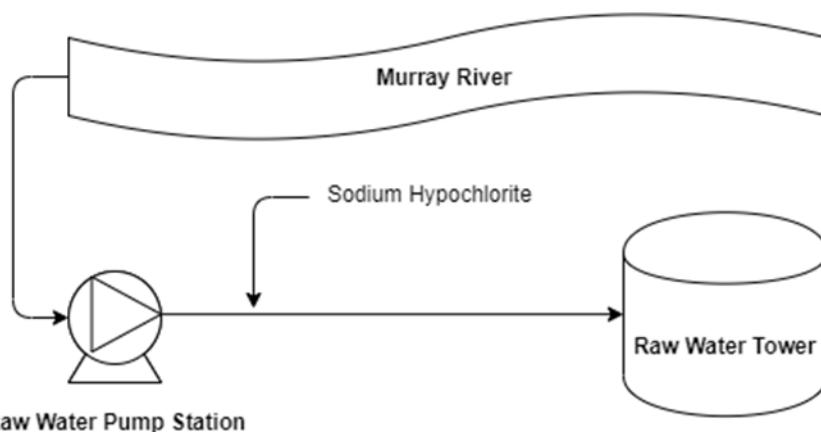


Figure 7-1: Euston non-potable water supply scheme

7.1 Water source

Water for the scheme is sourced from the Murray River. Raw water is pumped directly to the non-potable reservoir.

7.2 Water treatment

Following disinfection, raw water is stored in the raw water tower and gravitates through the non-potable reticulation system. The raw water tower is the only water storage in the distribution system.

The Euston water treatment plant is a dissolved air flotation plant with membrane filtration. A schematic diagram of the WTP is provided in Figure 7-2. It is worth noting that the sodium hypochlorite has been replaced with Chlorine gas

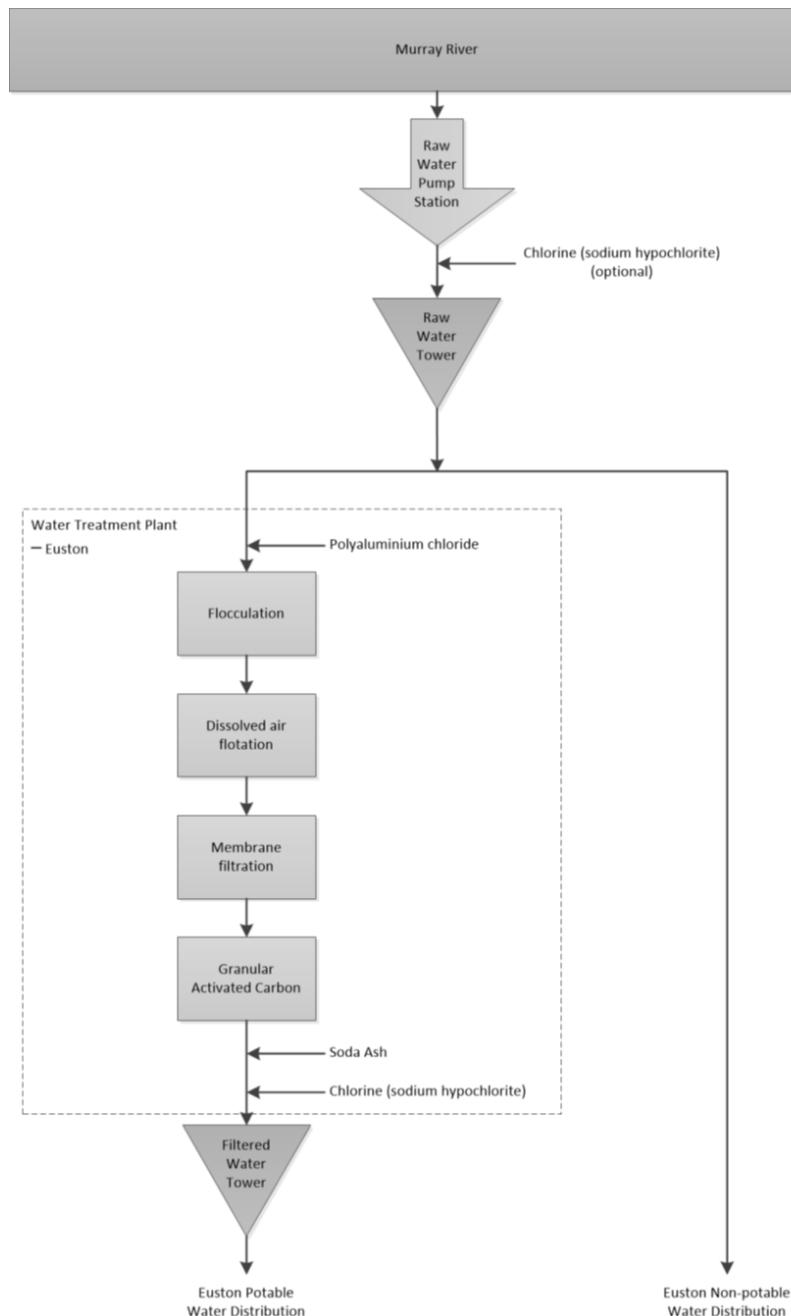


Figure 7-2: Euston water treatment plant – schematic diagram

7.3 Distribution system

Following treatment, water is pumped to the filtered water tower through the potable water distribution system. The potable water service area is shown in Figure 7-3.

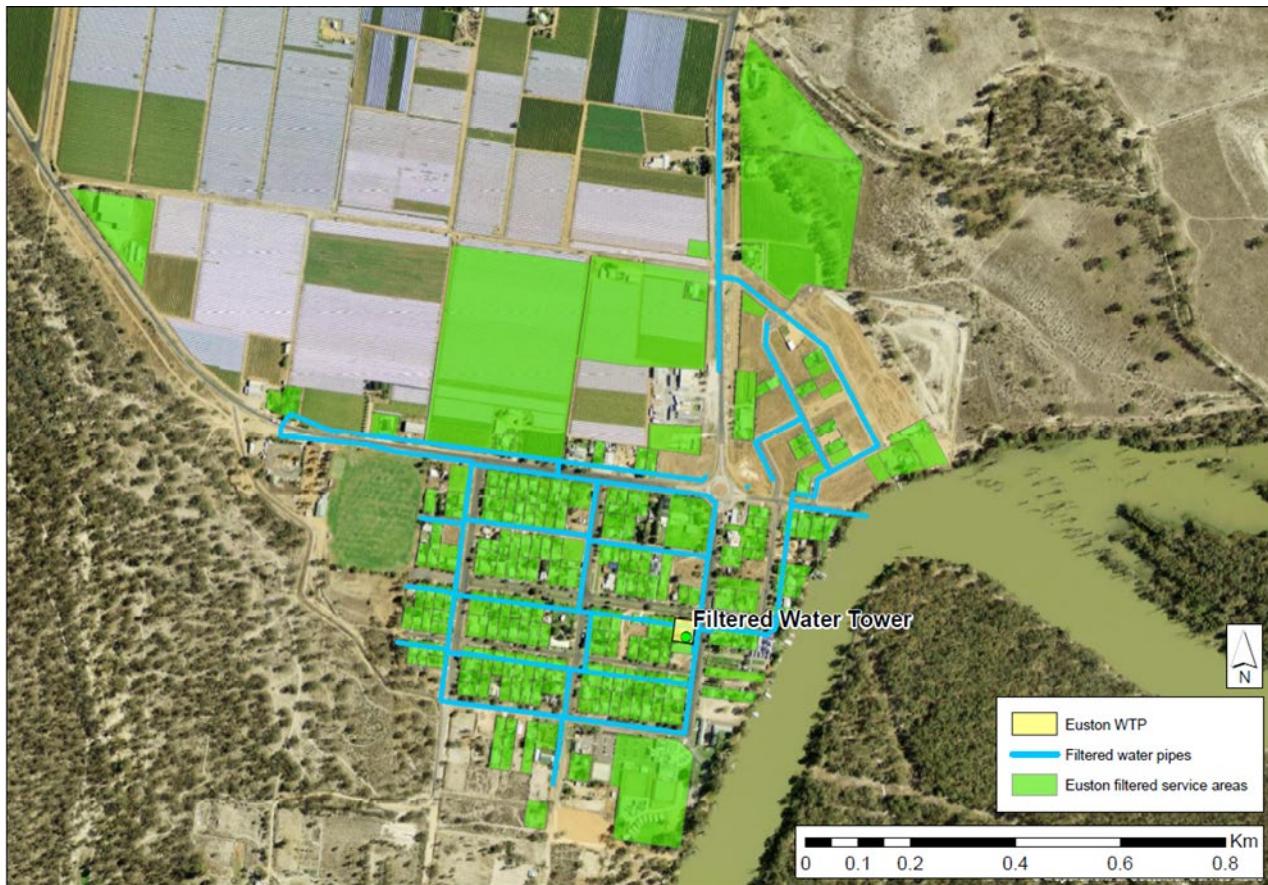


Figure 7-3: Balranald potable water supply – service area

7.4 Water projections

Projections of the average year demand are used for revenue planning, unrestricted dry year demand for sizing of headworks, and peak day production for sizing of water treatment works, reservoirs and pumping facilities. These projections for the potable and non-potable water supplies, adjusted for climate/population change, are provided in Table 7-1 and Table 7-2.

Table 7-1: Euston potable water supply scheme – demand projections

	2018	2019	2024	2029	2034	2039	2044	2049
Current Climate								
Average year (ML)	218	223	246	280	317	352	388	423
Dry year (95th%ile) (ML)	284	289	316	355	397	437	478	518
Peak day (ML)	2.42	2.47	2.76	3.18	3.62	4.06	4.49	4.92

Table 7-2: Euston potable water supply scheme – demand projections

	2018	2019	2024	2029	2034	2039	2044	2049
Current Climate								
Average year (ML)	70	72	79	90	102	114	125	137
Dry year (95th%ile) (ML)	74	76	84	96	109	121	134	146
Peak day (ML)	0.39	0.40	0.46	0.54	0.64	0.73	0.82	0.90

7.5 Water security assessment

The water security assessment for a water supply scheme considers the following:

- That Council's Water Access Licence (WAL) entitlement is sufficient to supply the 30-year forecast unrestricted annual demand
- The secure yield of the headworks is sufficient to supply the 30-year forecast unrestricted annual demand and provide drought resilience

License entitlement

The forecast water requirements for the nominated growth strategy are expected to exceed Council's water access license entitlement. The timing of this exceedance is related to the realisation of the growth. According to current forecasts this is expected to be around 2030 to 2035.

Drought reliability

DCCEEW has undertaken an assessment of climate scenarios on supply shortfalls for ton water supplies in the NSW Murray Region. The assessment shows that:

Under the historical scenario

- There is a 2% likelihood each year of a 6 or more days shortfall where at least 10% of the unrestricted daily demands cannot be met

Which under dry future climate increases to

- 97 or more days shortfall event where at least 75% of the unrestricted daily demands cannot be met (2% chance)

This needs to be considered in the drought contingency planning.

7.6 Issues identified and options assessed

7.7 System capacity assessment

Non-potable water supply

The system capacity will not be sufficient to meet the levels of service for the forecast water demands on some days during a peak week. However since the difference is not significant, reducing the system losses would be able to improve the system pressure such that the levels of service could be met.

Potable water supply

An analysis of the system capacity showed that the reservoir drawdown, when supplying future demands during peak periods, resulted in not meeting the minimum service pressure to the customers.

7.8 Options assessment

Options to augment the potable water supply system capacity include upgrading the WTP capacity and providing either additional reservoir storage or booster pumps to meet the levels of service. The following options were considered:

Option 1: 0.8ML WTP, duplicate the reservoir and install booster pumps

This option involves:

Stage 1

- Installing booster pumps to provide the required system pressure, allowing higher utilisation of the existing reservoir
- Duplicating the reservoir to increase capacity and reliability
- Augmenting the WTP capacity to 0.8 ML/day by building a second 0.4ML/day process train

Stage 2

- Augmenting the WTP capacity by a further 0.4 ML/d in 2042

Option 2: 0.8ML WTP and augment reservoir

The option involves:

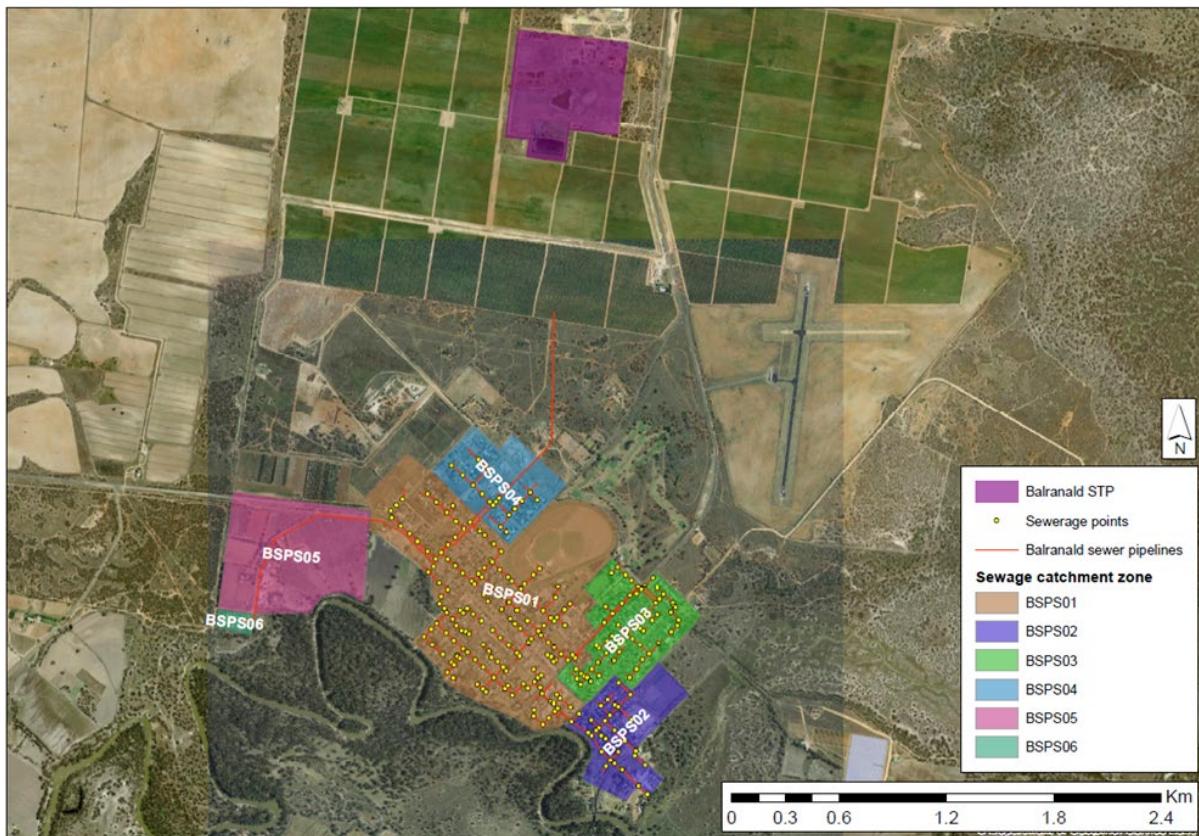
- Building a new 0.95 ML reservoir to increase capacity and reliability
- Duplicating the WTP capacity to 0.8 ML/day

Both the augmentation options were taken forward to the scenario development.

8. Balranald sewerage scheme

8.1 Scheme description

The sewage collection and transfer system of Balranald consists of 6 sewage pump stations (SPS). The service area of the Balranald sewerage scheme is shown in Figure 8-1. And the SPS hierarchy is shown in Figure 8-2.



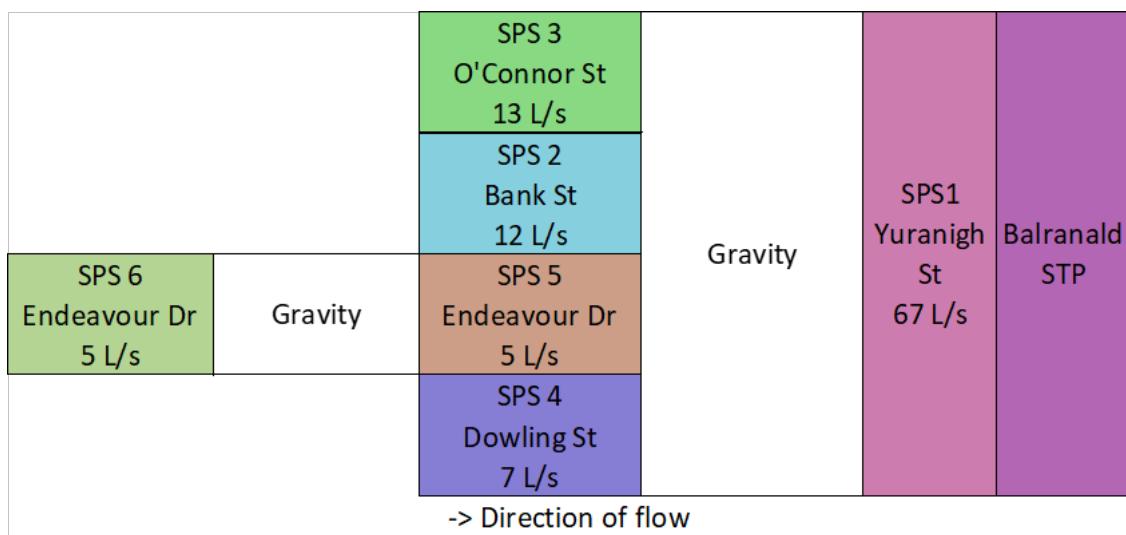


Figure 8-2: Balranald sewerage scheme – pumping hierarchy diagram

8.2 Hydraulic loadings

The historical sewage inflow data to the Balranald STP analysed for this study, is shown in Figure 8-3.

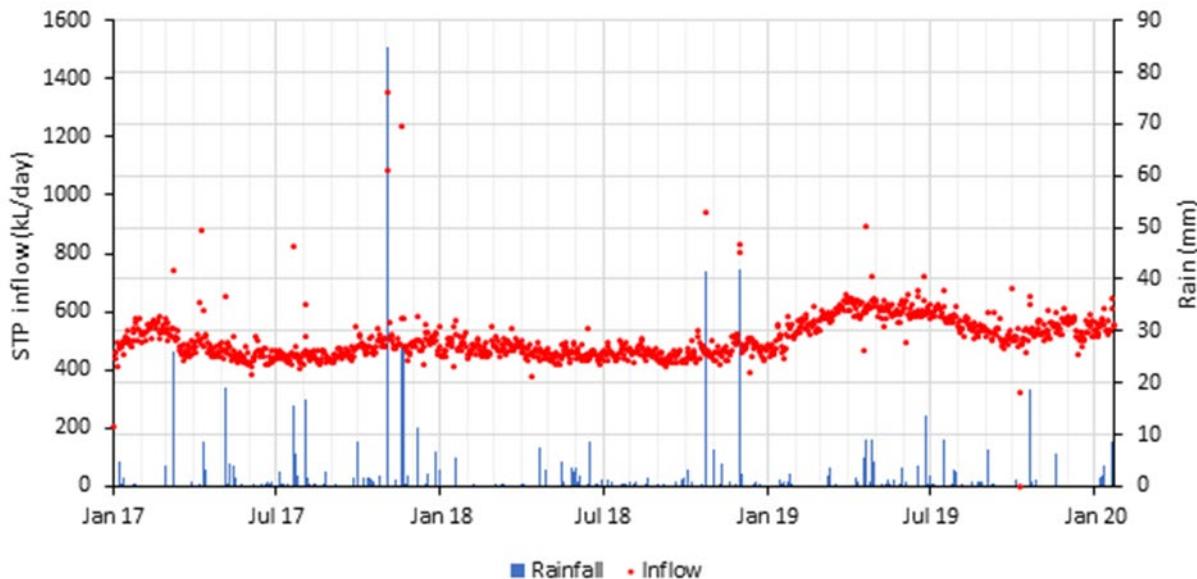


Figure 8-3: Historical daily inflows at Balranald STP

The average dry weather flow (ADWF) was assessed from STP inflows and from the water consumption data. The estimates from the water billing data considered to be more accurate. The ADWF was assessed as being 245 kL/day with a hydraulic loading of about 190 L/EP/day.

8.3 Projections

The projected ADWF for the Balranald sewerage scheme, for the Council nominated growth rate, is provided in Table 8-1.

Table 8-1: Projected ADWF for the Balranald sewerage scheme

	2019	2024	2029	2034	2039	2044	2049
Council provided growth rate							
Peak sewer EP	1,737	3,890	4,236	4,234	4,232	4,229	4,227
Projected peak ADWF (kL/day)	330	739	805	804	804	804	803

8.4 Sewage treatment plant

The sewage treatment plant, built in 1988 consists of a series of four oxidation ponds with 60 days of total detention time, providing a capacity of 2,000 EP. The aerial view of the STP is shown in Figure 8-4. Treated effluent is evaporated.

**Figure 8-4: Aerial view of Balranald sewage treatment plant**

8.5 Capacity assessment

Under the projected growth, the Balranald STP will require a capacity augmentation both hydraulically and biologically. Two options were considered for the capacity augmentation.

Option 1: Additional oxidation pond and effluent disposal by evaporation

An additional 2,000 EP oxidation pond is suggested to meet the peak loading. This includes extra capacity should there be additional growth in the long term. The simplicity of maintenance and

operation with oxidation ponds means it is still the preferred option for treatment. An additional 2,500 EP oxidation pond is also recommended for the existing system as there is no alternate primary oxidation pond should a desludge be required of the first pond. This pond provides additional polishing when not used as a primary oxidation pond. The arrangement for this option is shown in Figure 8-5.

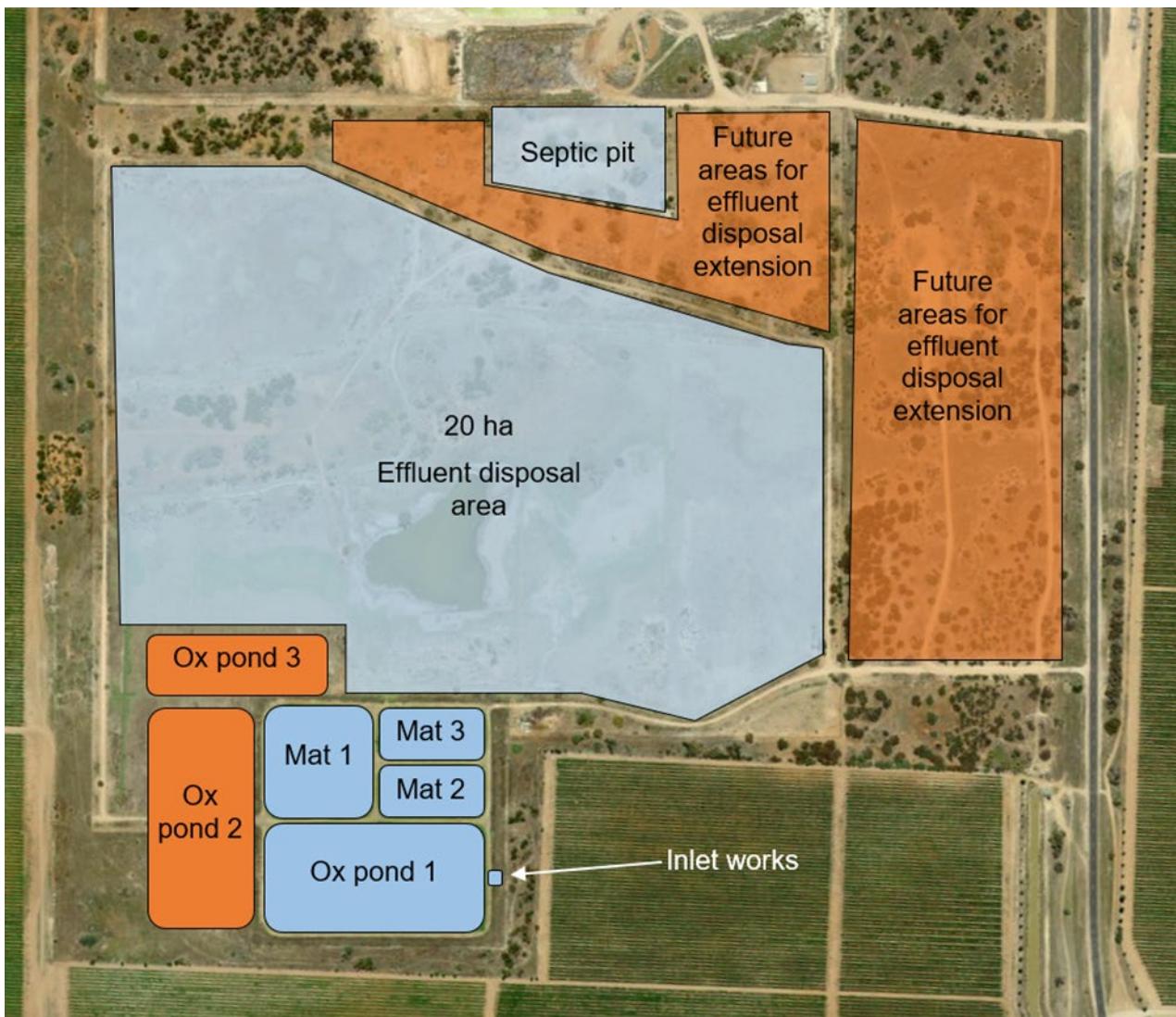


Figure 8-5: Balranald STP augmentation arrangement

Option 2: Additional activated sludge plant and effluent discharge to waterways

Option 2 involves installing an activated sludge (IDEA) process to provide the additional 2,000 EP required. It produces a higher quality effluent compared to oxidation ponds but has higher capital and operational costs. Treated effluent would no longer need to be contained and may be discharged to the environment pending regulatory approvals with EPA

Option 1 was taken forward to the scenario development.

9. Euston sewerage scheme

9.1 Scheme description

The sewage collection and transfer system of Euston consists of 4 sewage pump stations (SPS). The service area of the Euston sewerage scheme is shown in Figure 9-1 and the SPS hierarchy is shown in Figure 9-2.

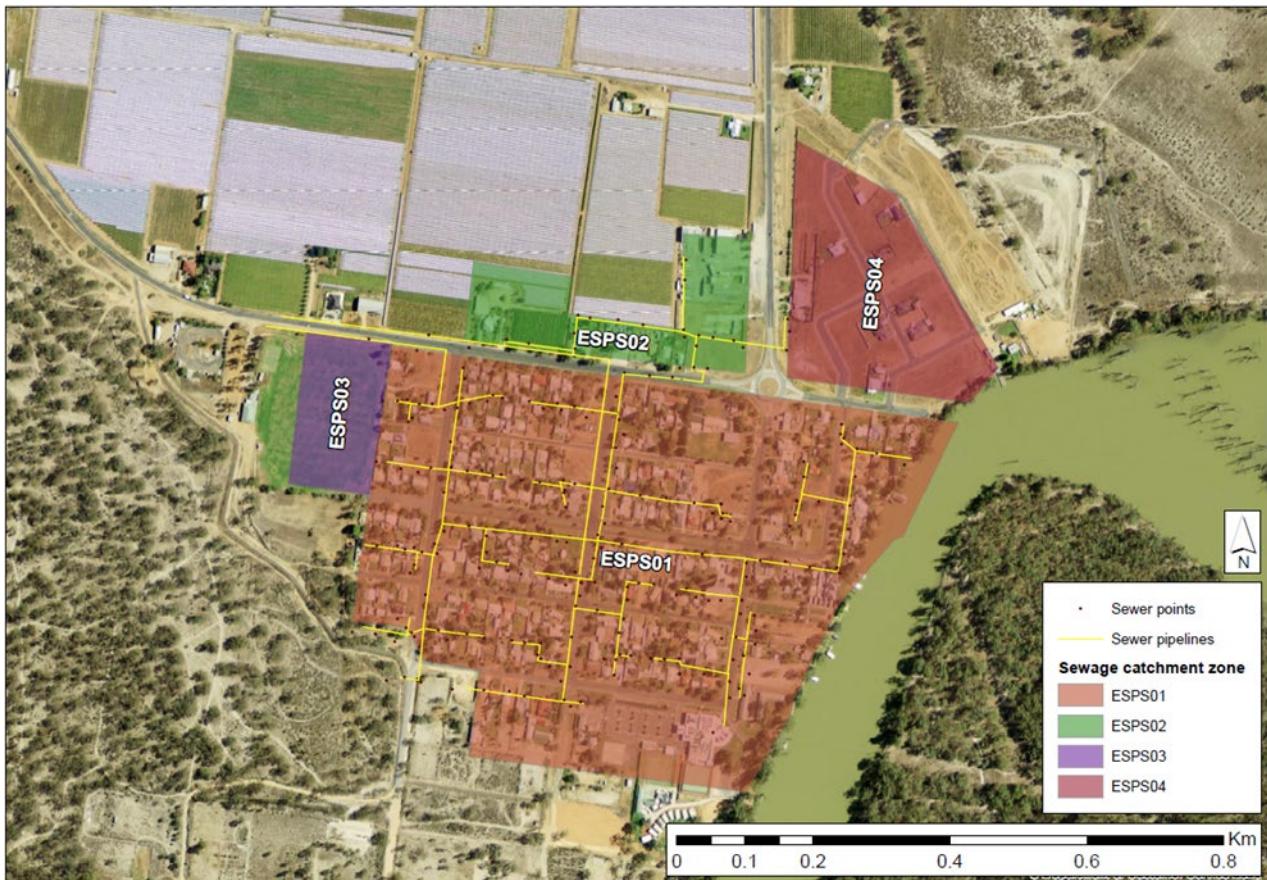


Figure 9-1: Euston sewerage scheme – service area

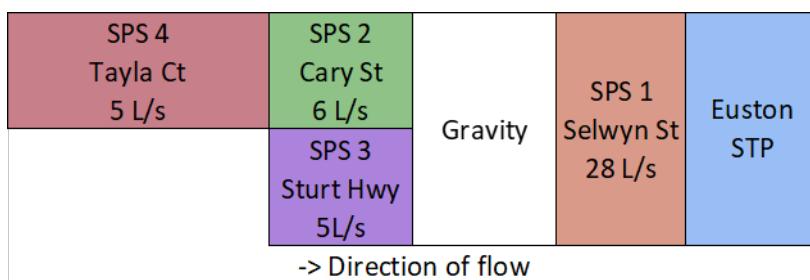


Figure 9-2: Euston sewerage scheme – pumping hierarchy diagram

9.2 Hydraulic loadings

The historical sewage inflow to the Euston STP, analysed for this study, is shown in Figure 9-3.

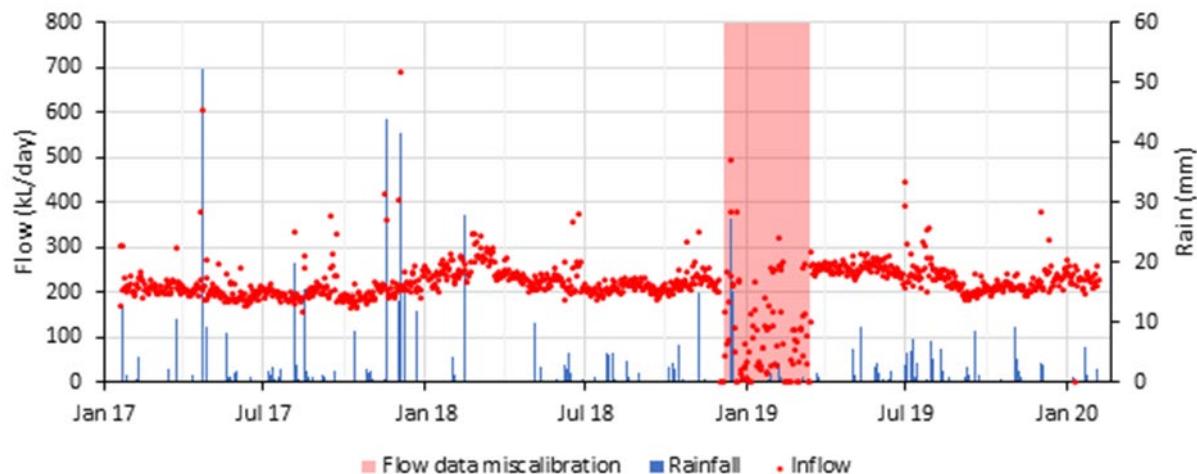


Figure 9-3: Historical daily inflows at Euston STP

The average dry weather flow (ADWF) was assessed from STP inflows and from the water consumption data. The estimates from the water billing data considered to be more accurate. The ADWF was assessed as being 110 kL/day with a hydraulic loading of about 195 L/EP/day.

9.3 Projections

The projected ADWF for the Euston sewerage scheme, for the Council nominated growth rate, is provided in Table 9-1.

Table 9-1: Projected ADWF for the Euston sewerage scheme

	2019	2024	2029	2034	2039	2044	2049
Peak sewer EP	582	647	735	839	939	1,038	1,137
Projected peak ADWF (kL/day)	113	126	143	163	182	201	221

9.4 Sewage treatment plant

The Euston STP was built in 1993 and has a design capacity of 1,100 EP, consisting of a primary and secondary oxidation pond. Following oxidation, there is a maturation pond and two effluent evaporation ponds. An aerial view of the STP is shown in Figure 9-4.

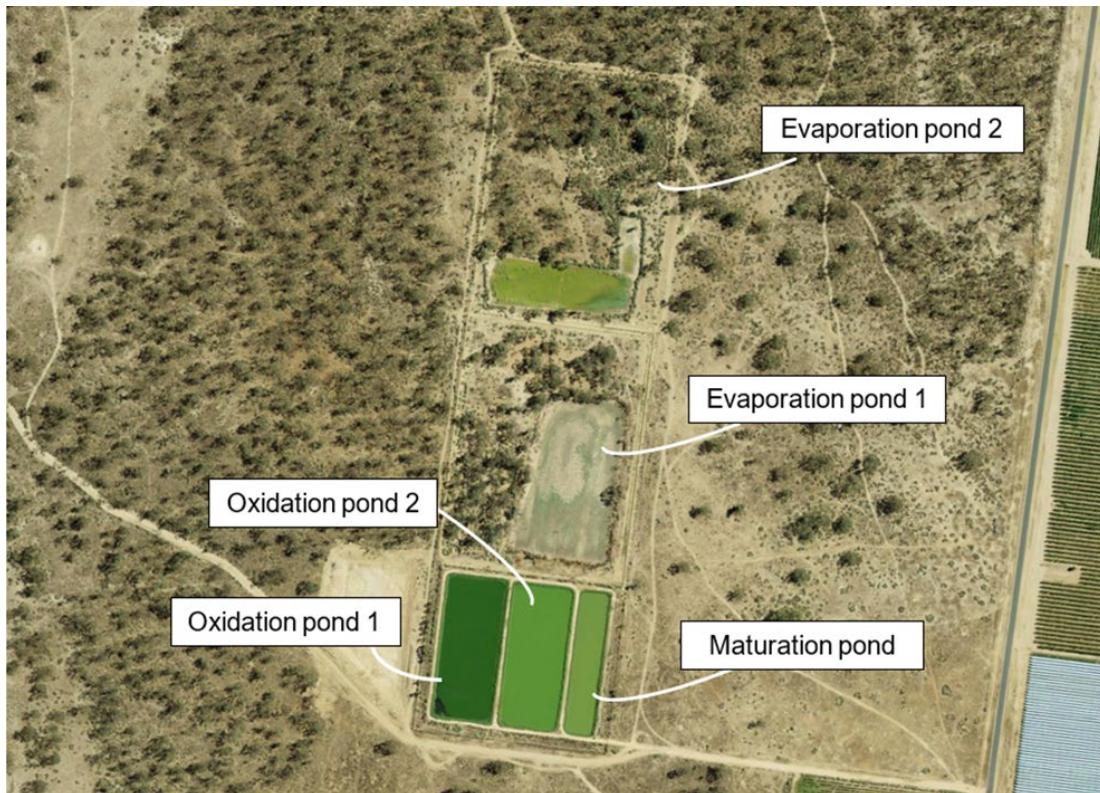


Figure 9-4: Aerial view of Euston STP

9.5 Capacity assessment

Council plans to develop a 400-bed accommodation facility to suit the growing influx of itinerant workers. This is in addition to the long-term permanent growth indicated by the DPE growth profile. The Euston STP is therefore projected to require a capacity augmentation both hydraulically and biologically. The augmented capacity will reclassify Euston STP as a scheduled premise-based activity under the POEO Act Section 36 as the capacity would exceed 2,500 EP. Consequently, Council would need to apply for an EPL.

Considering the existing STP and its performance, duplicating the oxidation pond and adding maturation and evaporation ponds are suggested to meet the peak loading. The construction of new ponds is expected to fit within the same lot boundary, but some minor land clearing may be required. This augmentation would not be required until loading surpasses existing capacity (between 2035 and 2040). This option involves:

- Duplicating an oxidation pond in the empty space adjacent (Ox Pond 3)
- Duplicate the maturation pond
- Modify inlet works to split flow between oxidation ponds
- Construct another evaporation pond

The extent of this augmentation is shown in the aerial photograph in Figure 9-5.

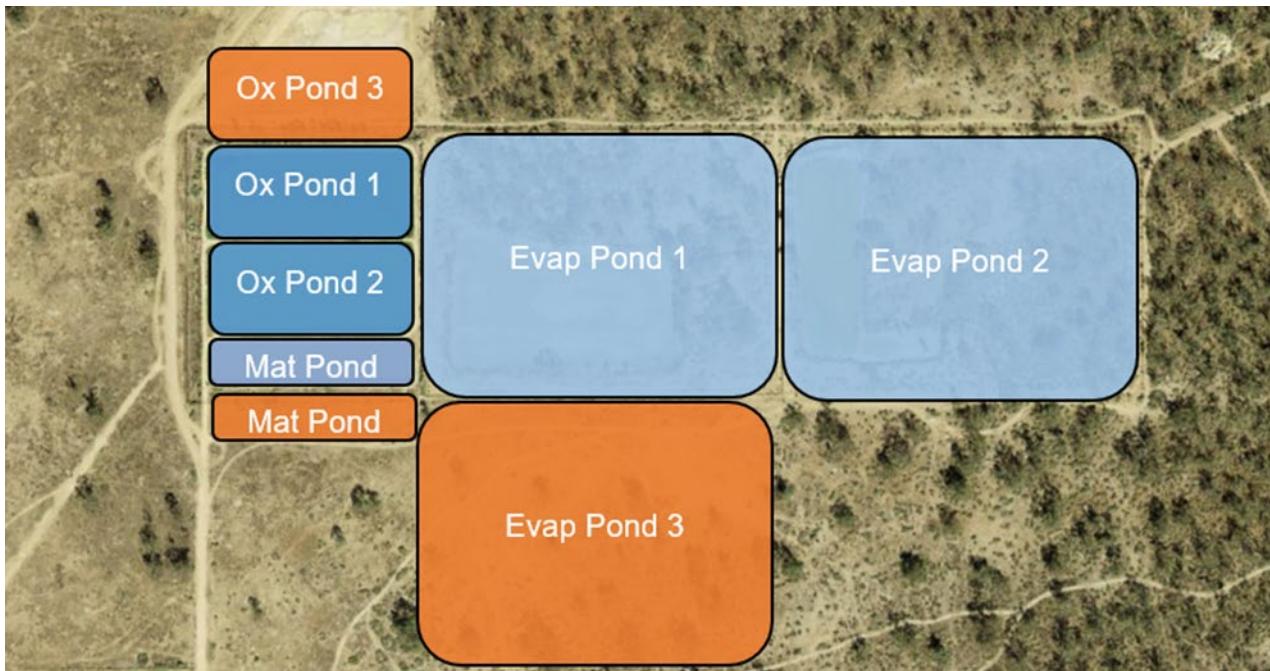


Figure 9-5: Euston STP augmentation arrangement

10. Future actions and implementation plan

10.1 Scenario

Table 10-1 and Table 10-2 show the bundled Scenario segregated for convenience into water supply and sewerage schemes. The issues that are being addressed by each option are also listed.

Table 10-1: Water supply scenario – infrastructure needs

Target for Compliance	Issue	Scenarios			
		1	2	3	
Balranald Non-potable water supply scheme					
Condition and criticality of raw water pumping station	Work Health and Safety Issues and inability to access water during low flow in the weir	New shared intake and pumping station			
Meet Level of Service	For the forecast demand the system cannot meet the supply requirements.	Augment capacity of the raw water pumps and rising main to 17 ML/day			
Balranald Potable water supply scheme					
Meet Level of Service	For the forecast demand the system cannot meet the supply requirements.	Option 2A – Booster pump + new 1.1 ML reservoir + new 1.8 ML/d plant in 2 years	Option 2B – Booster pump + new 1.1 ML reservoir + new 0.7 ML/d plant in 2 years	Option 3A – Booster pump + new 2.2 ML/d plant in 2 years	

Target for Compliance	Issue	Scenarios		
		1	2	3
Euston Potable water supply scheme				
Meet Level of Service	For the forecast demand the system cannot meet the supply requirements.	Option 1 – Stage 1: Booster pump + new 0.5 ML reservoir + new 0.4 ML/d plant. Stage 2: New 0.4ML/d plant in 2042	Option 2 – Stage 1: Booster pump + new 0.9 ML reservoir + new 0.4 ML/d Stage 2: New 0.2ML/d plant in 2045	Option 2 – Booster pump + new 0.9 ML reservoir + new 0.4 ML/d plant in 7 years

Table 10-2: Sewerage scenario – infrastructure needs

Target for Compliance	Issue	Scenarios 1
Balranald sewerage scheme		
Meet performance requirements	Currently there is one oxidation pond and it cannot be desludged as there is no alternate pond to receive the sewage during desludging	Construct an additional oxidation pond which will serve as a polishing pond during normal operation and as the primary pond during desludging
Meet Level of Service	For the forecast load the sewage treatment plant cannot meet the capacity requirements.	Construct an additional 2,000 EP pond to meet the capacity requirements due to growth.
Euston sewerage scheme		
Meet Level of Service	For the forecast load the sewage treatment plant cannot meet the capacity requirements.	Construct an additional oxidation pond, maturation pond and evaporation area to meet the capacity requirements due to growth.

10.2 Present value analysis

A present value analysis of the Scenario has been undertaken. Detailed net present value cost estimates for the Scenario are provided in Appendix A.

A summary of the estimated total cost of capital outlay and the present value (PV) of the capital, and the operating and maintenance (O&M) cost estimates over the 30 years for the water supply and sewerage services in the Scenario is shown in Table 13 3 and Table 13 4 respectively.

Table 10-3: Summary of capital and PV costs for the IWCM Scenario – water supply

Scenario	Total capital cost - over 30 years (\$K)	Present value of capital cost @7% (\$K)	Present value of opex @7% (\$K)	Total present value @7% (\$K)
Scenario 1	22,683	18,041	1,356	19,091
Scenario 2	18,448	14,893	1,069	15,962
Scenario 3	21,669	17,060	1,290	18,044

Table 10-4: Summary of capital and PV costs for the IWCM Scenario – sewerage

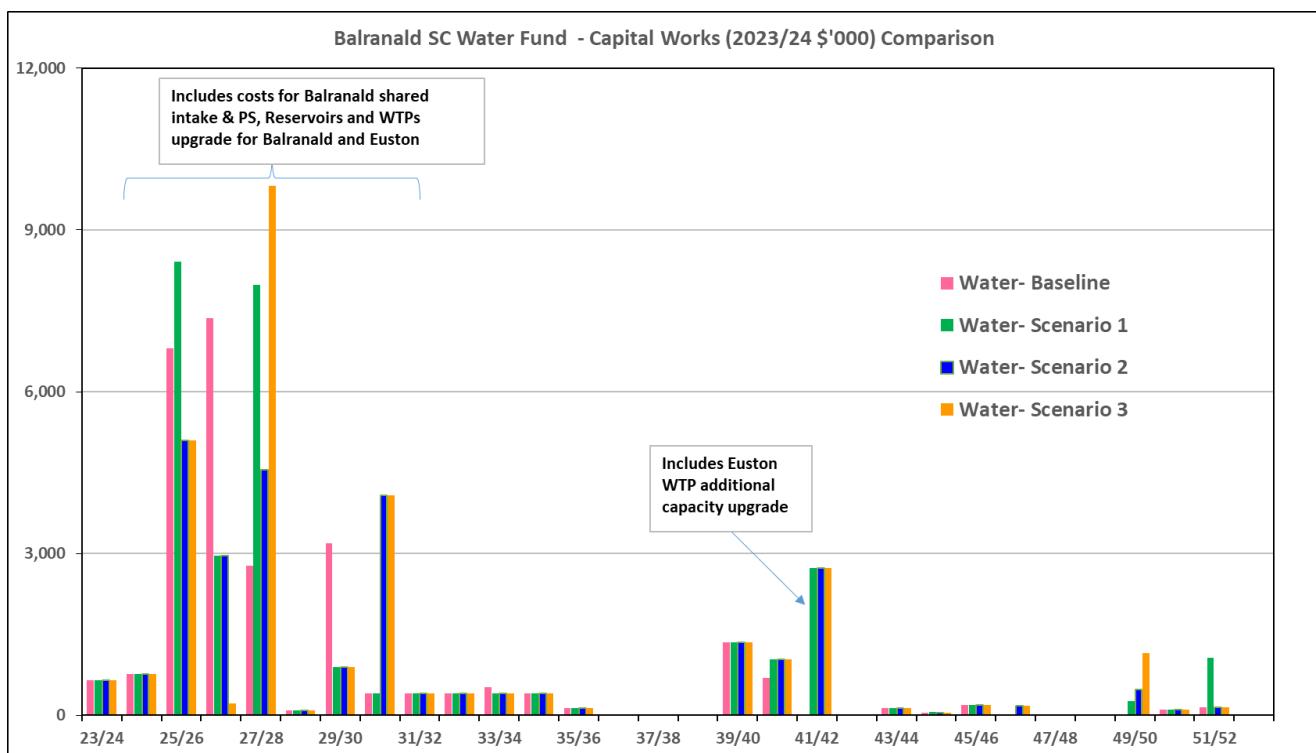
Scenario	Total capital cost - over 30 years (\$K)	Present value of capital cost @7% (\$K)	Present value of opex @7% (\$K)	Total present value @7% (\$K)
Scenario 1	5,756	3,104	126	3,230

11. Typical residential bill analysis

As part of the assessment of IWCM scenarios, approximate annual Typical Residential Bills (TRBs) for the Council's water supply and sewerage services have been estimated by developing water and sewer fund financial model. The financial model were developed using DCCEEW's FINMOD 4 financial modelling software with reference to the historical financial input details based on Council's 2021-22 and 2022-23 water and sewer income and financial position statements submitted as part of the financial data returns to the Office of Local Government (OLG). Approximate TRBs forecast by the models are expected to be within about 10% of the final TRBs that will be forecast in the Financial Plan for the Council adopted IWCM strategy. All additional inputs and forecast details are in 2023-24 \$.

The financial models for IWCM scenarios have been built upon the base line scenario which corresponds to the Council's 'business-as-usual' 30-year water supply and sewerage asset renewal plans. The estimated capital costs of the IWCM initiatives for each of the scenarios have then been incorporated to the baseline capital works program for the purpose of a comparative TRB analysis of IWCM scenarios.

The 30-year capital works for the IWCM scenarios and the 'baseline' scenario program for water supply and sewerage are compared in Figure 11-1 and Figure 11-2 respectively.

**Figure 11-1: Comparison of 30-year Capital Works Programs – Water Supply**

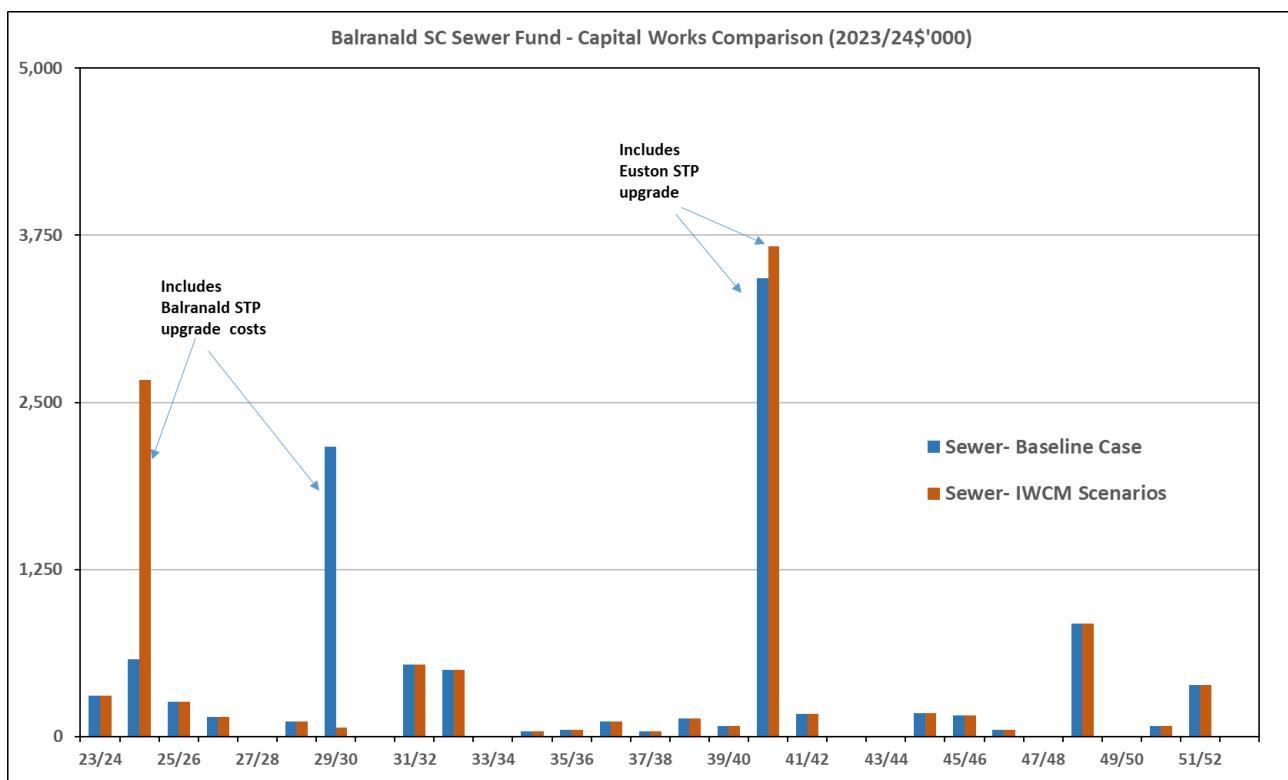


Figure 11-2: Comparison of 30-year Capital Works Programs – Sewerage

The operation, maintenance and administration (OMA) cost estimates for each scenario including additional expenses for IWCM initiatives and the recommended management system improvement measures are compared in Figure 11-3 and Figure 11-4.

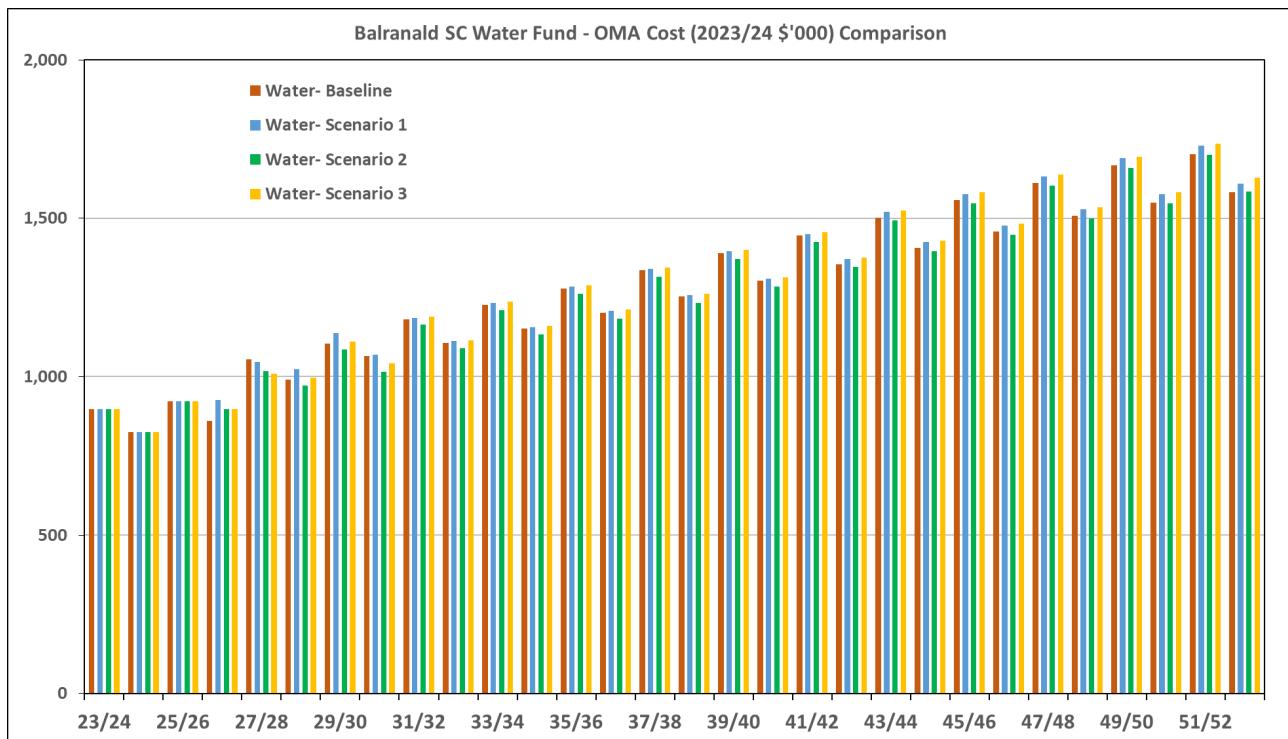


Figure 11-3: Comparison of 30-year OMA Costs – Water Supply

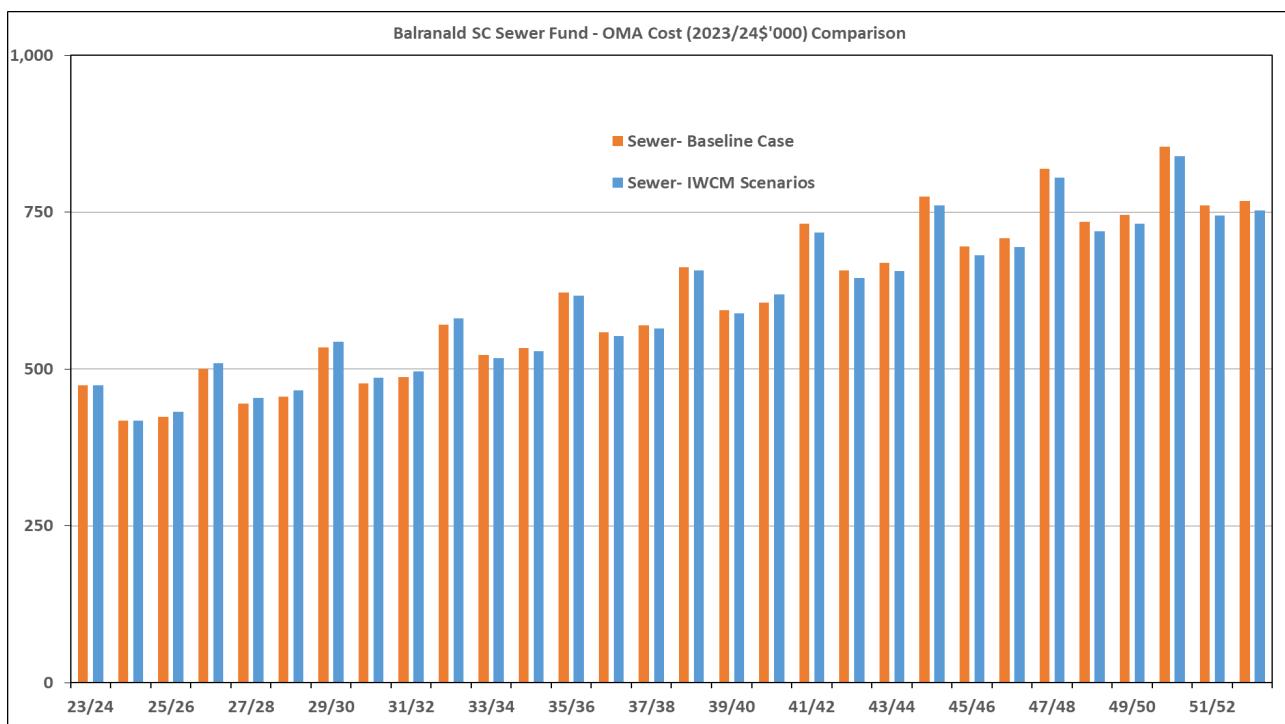


Figure 11-4: Comparison of 30-year OMA Costs – Sewerage

11.1 Water Supply TRB Forecasts

The water fund financial model has been developed with reference to the historic input details based on Council's 2021-22 and 2022-23 water income and financial position statements submitted as part of the financial data returns to the Office of Local Government. All the model forecast values are in 2023-24\$ and needs to be indexed for CPI/ inflation.

Typical residential water bills for 2023-24 based on the adopted filtered and raw water tariff structure for the Council areas of Balranald and Euston as shown below.

- TRB for Filtered Water: \$785 p.a.
- TRB for Raw Water: \$864 p.a.

Due to different average filtered and raw water consumption between Balranald and Euston customers, weighted average TRBs for filtered and raw water supply has been estimated based on 2023/24 tariff structure. The raw water TRB has been estimated as 1.1 times higher than that of filtered water. Hence, the raw water customer numbers has been adjusted as equivalent filtered water customers for the purpose of financial forecasts.

Financial model considered availability of 90% government grant/ subsidy for the Balranald and Euston WTP capacity upgrade option capital works under the baseline and the IWCM scenarios. No grant/ subsidy for the additional Euston WTP capacity upgrade in 2042 considered. Model forecasts demonstrate that the 2023-24 level of TRB can be maintained for all the forecast period for all the scenarios. The forecast TRBs required from 2024/25 onwards for the IWCM scenarios over the 30-year forecast period are compared in Table 11-1 and Figure 11-5.

At the forecast level of TRBs, after due consideration of government grant/ subsidies, no new loans during the 30-year forecast period will be required to fund any of the planned capital works for the baseline and all the IWCM scenarios. Also, a minimum level of cash and investment of \$500 K can be

maintained in the water fund throughout the forecast period. The forecast cash and investment levels are compared in Figure 11-6.

Table 11-1: TRB Forecasts for IWCM Scenarios – Water Supply

Scenario	Forecast TRB p.a. in 2023/24\$	
	Filtered Water	Raw Water
BAU Baseline	785	864
IWCM Scenario 1	785	864
IWCM Scenario 2	785	864
IWCM Scenario 3	785	864

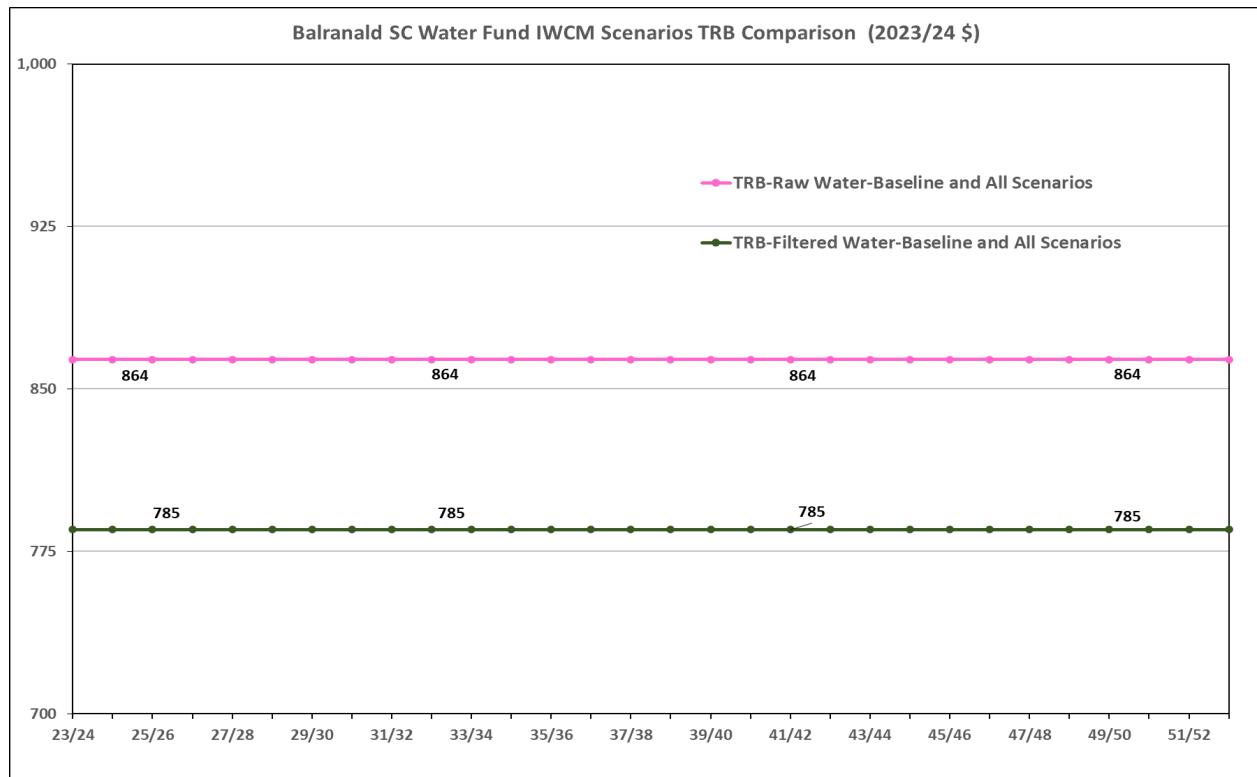


Figure 11-5: TRB Forecasts for IWCM Scenarios – Water Supply

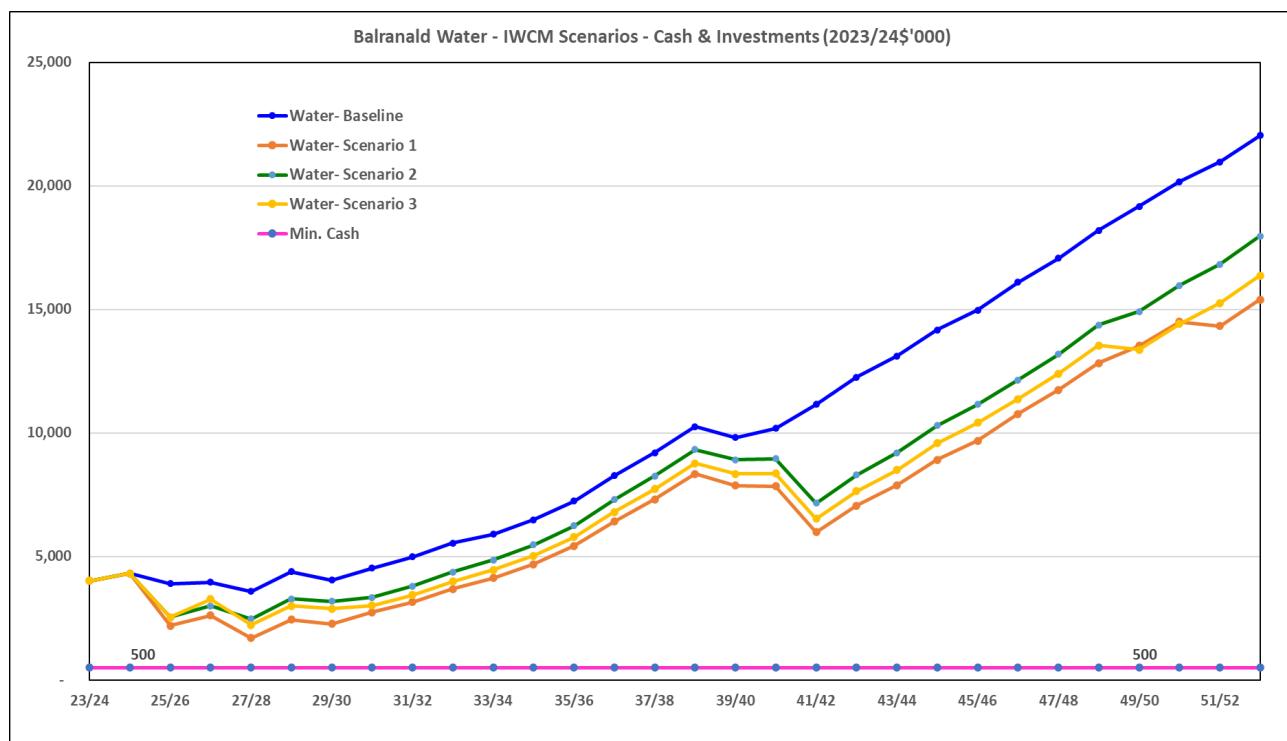


Figure 11-6: Cash Levels Forecasts for IWCM Scenarios – Water Supply

TRBs for filtered and raw water, new loans and cash and investments forecasts were made also for a **no government grant/subsidy** setting of all the IWCM scenarios. The financial model forecasts are presented in Figure 11-7, Figure 11-8, Figure 11-9, and Figure 11-10.

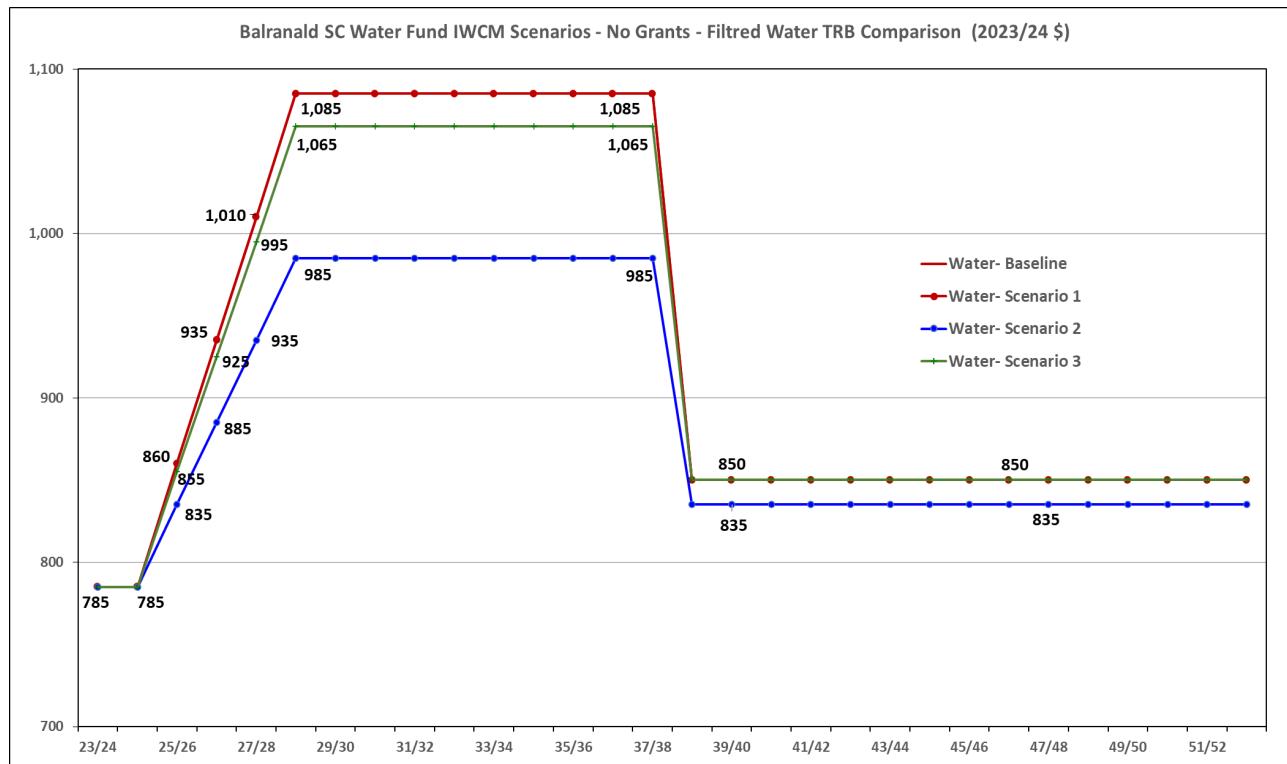


Figure 11-7: TRB Forecasts for IWCM Scenarios – No Grants – Filtered Water Supply

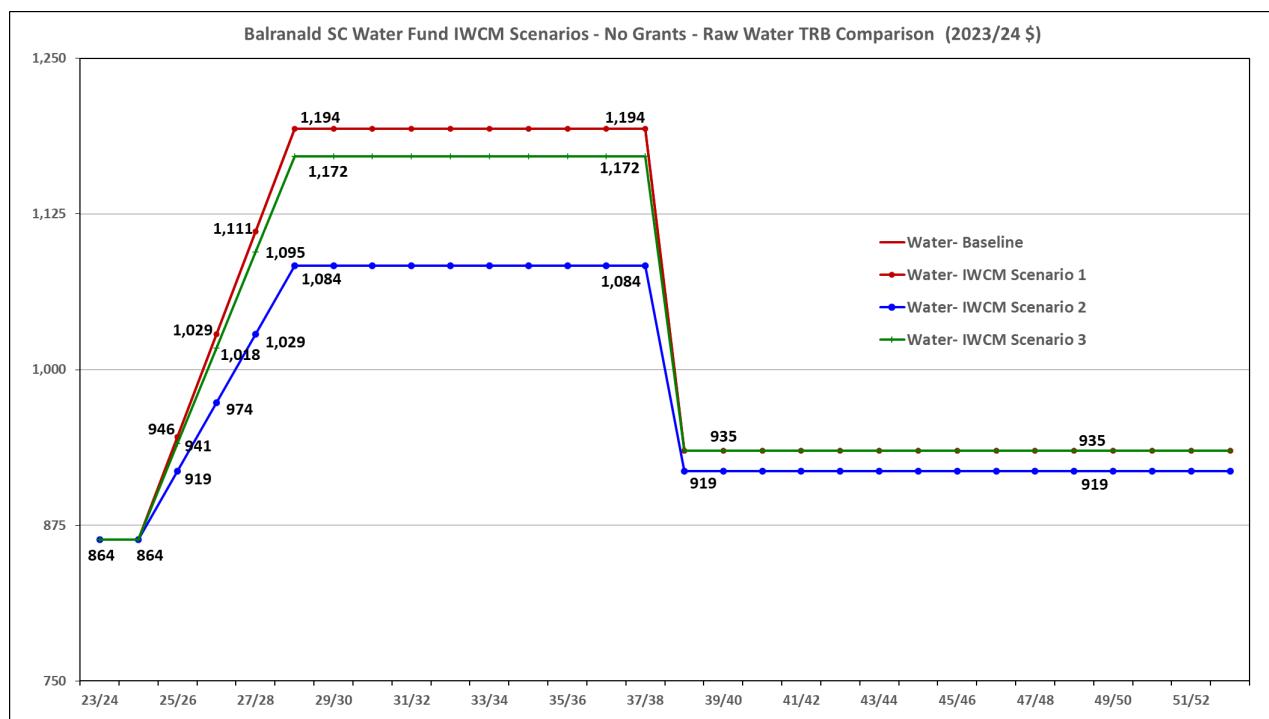


Figure 11-8: TRB Forecasts for IWCM Scenarios – No Grants – Raw Water Supply

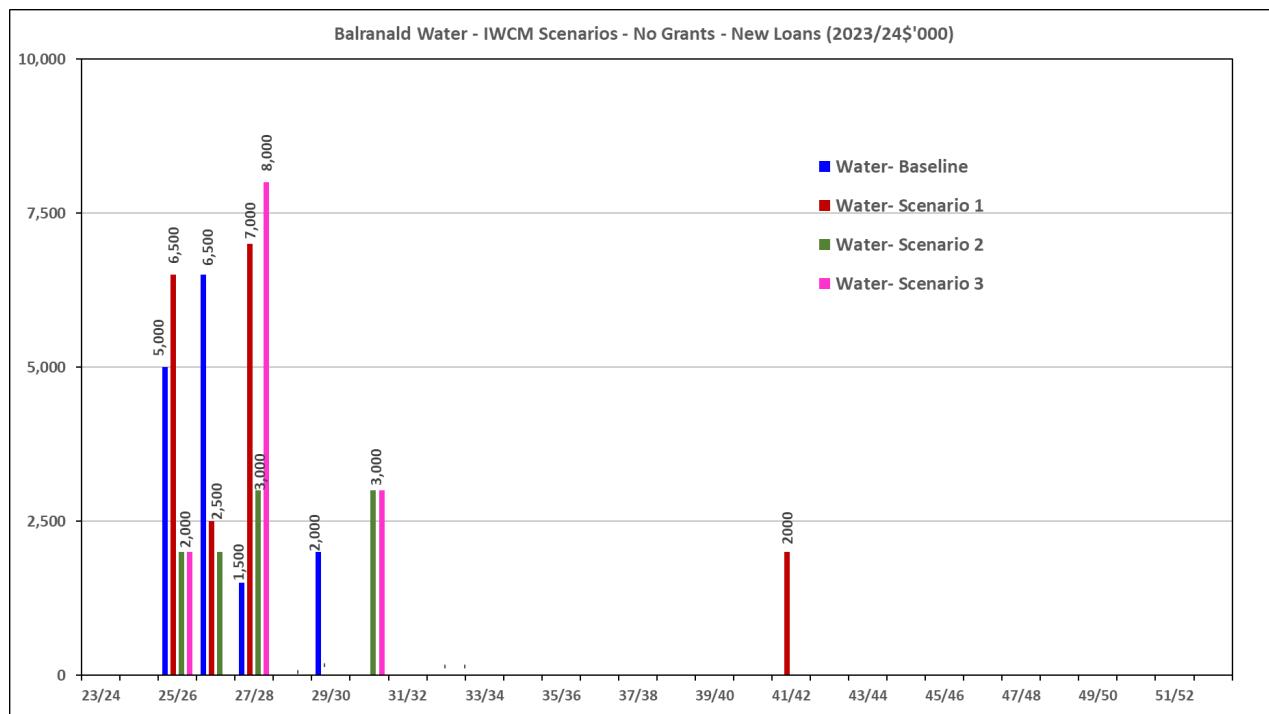


Figure 11-9: New Loans Forecasts for IWCM Scenarios – No Grants - Water Supply

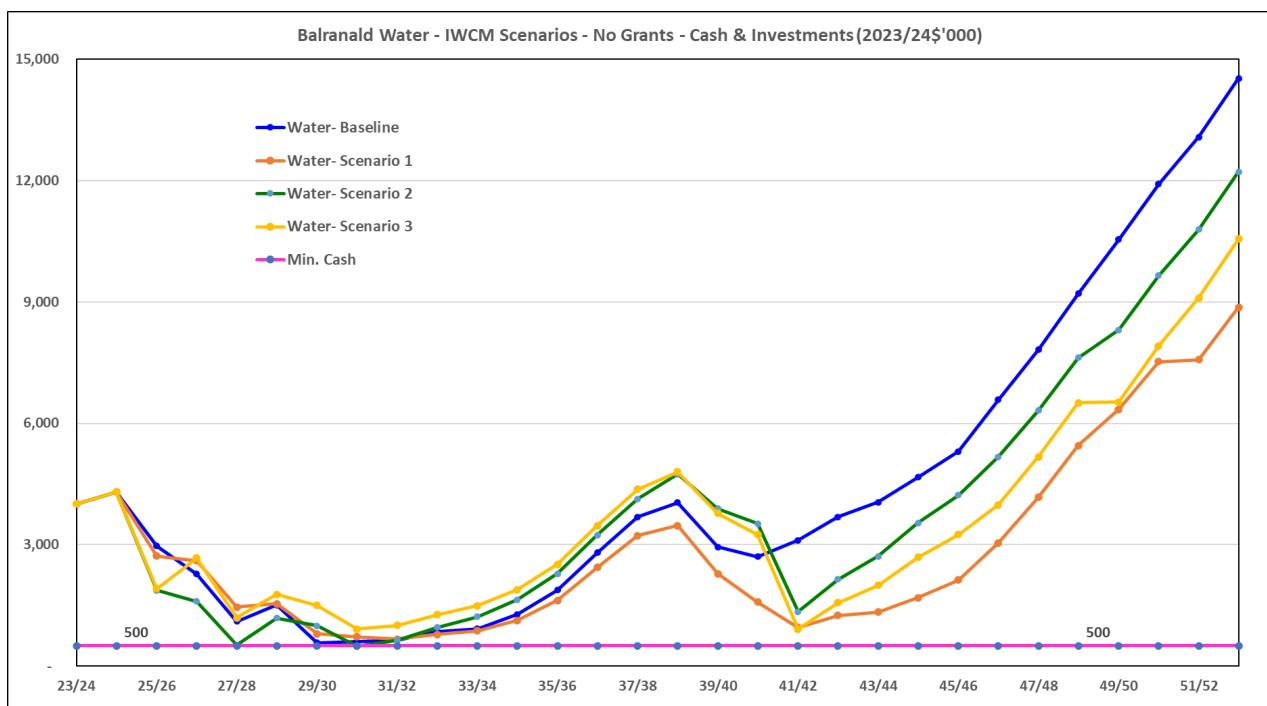


Figure 11-10: Cash Levels Forecasts for IWCM Scenarios – No Grants – Water Supply

The financial modelling forecasts presented in this report are intended as a means for comparing the IWCM scenarios to support the selection of a preferred scenario. Further financial modelling will be carried out for preferred scenario when required adjustments will be made in keeping with Council's internal financial planning processes.

11.2 Sewerage TRB Forecasts

The sewer fund financial model has been developed with reference to the historic input details based on Council's 2021-22 and 2022-23 sewer income and financial position statements submitted as part of the financial data returns to the Office of Local Government. All the model forecast values are in 2023-24\$ and needs to be indexed for CPI/ inflation.

The financial models considered availability of 90% grant or subsidy for the Balranald and Euston STP upgrade capital works for the baseline as well as for all the IWCM scenarios. Council has adopted a typical residential sewer bill of \$698 p.a. for 2023-24.

The forecast TRBs for each of the IWCM scenarios are compared Figure 11-11. The model forecasts demonstrate that Council can maintain the 2023-24 level of \$698 p.a. (2023-24\$) residential sewerage charges for all the forecast years and there is no impact on typical residential bills for sewerage due to any of IWCM scenarios compared to the baseline scenario.

At the forecast level of TRB, with due consideration of the government grant/subsidy at 90% for the Balranald and Euston STP upgrade works, no new loans during the 30-year forecast period will be required to fund any of the planned capital works for all the scenarios including the baseline. Also, a minimum level of cash and investment of \$500 K can be maintained in the sewer fund throughout the forecast period. The forecast cash and investment levels are compared in Figure 11-12.

Sewerage TRBs, new loans and cash and investments forecasts were also made for a ***no government grant/subsidy*** situation of all the IWCM scenarios. The financial model forecasts demonstrate that with a new loan of \$1,000 K for the Balranald STP upgrade, the same levels of TRBs can be maintained as for the 'with grant/ subsidy' scenario reported above.

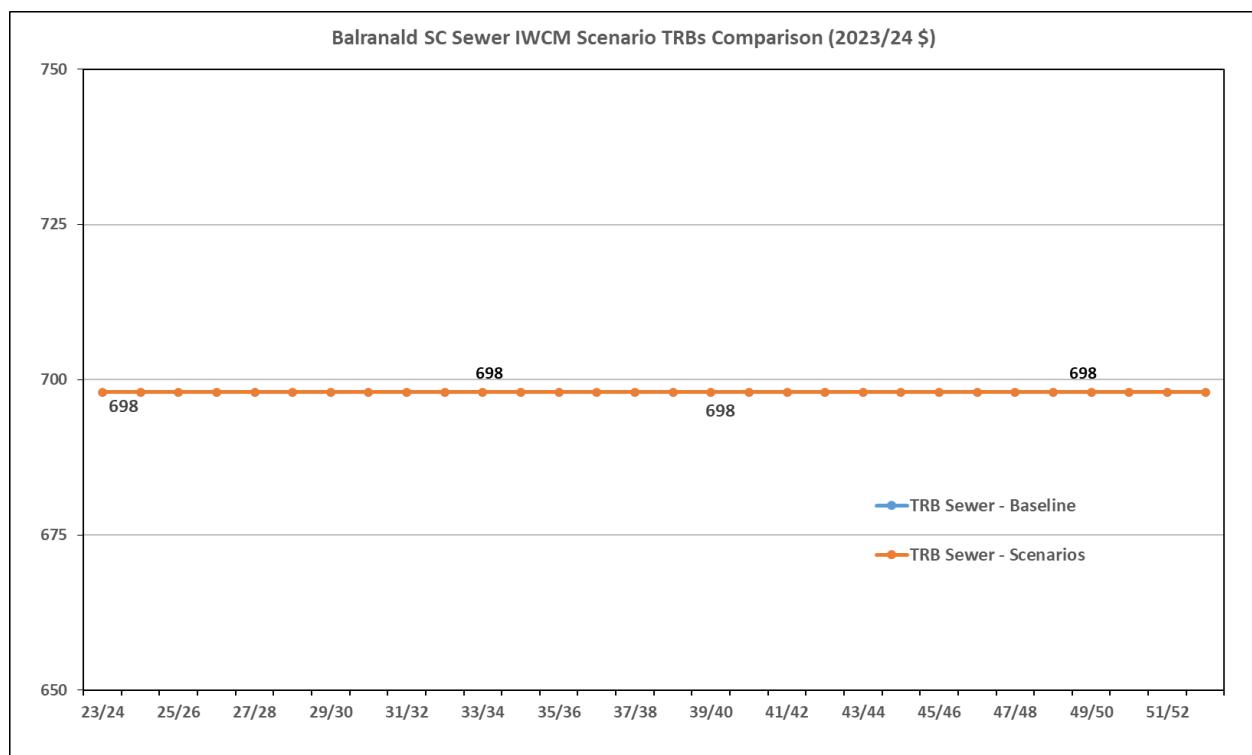


Figure 11-11: Comparison of TRB Forecasts for IWCM Scenarios – Sewerage

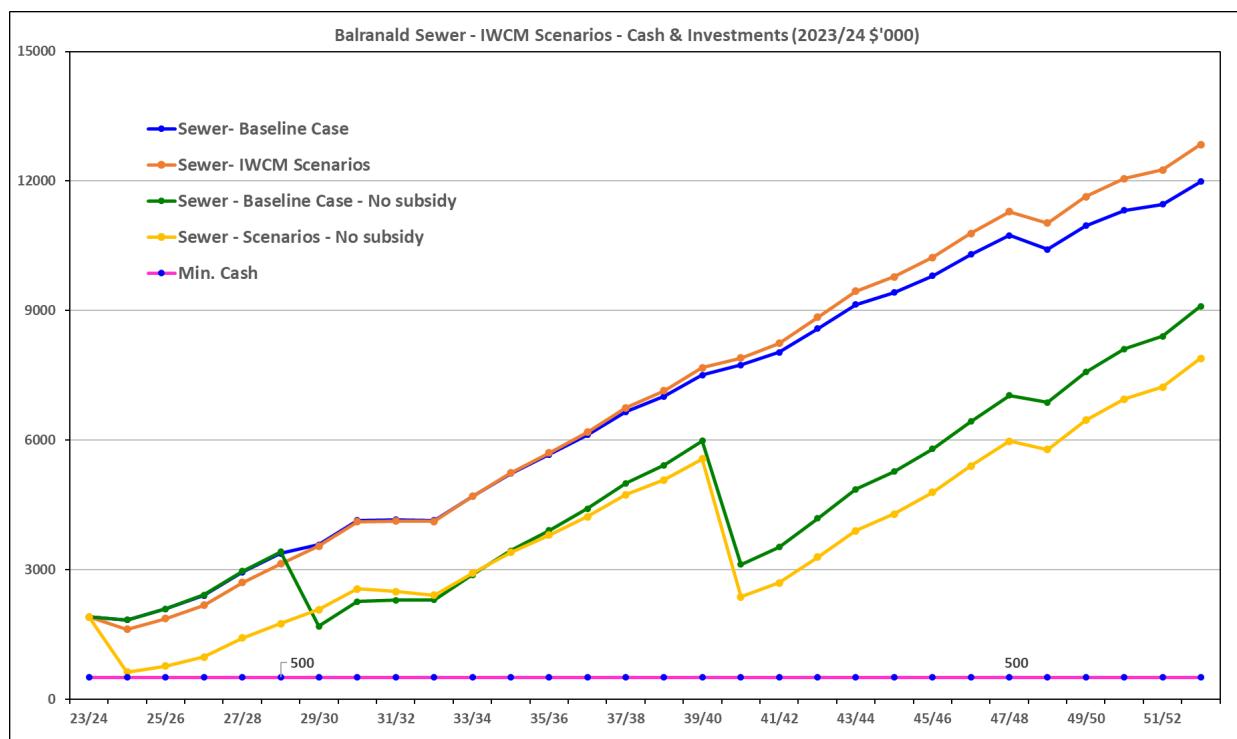


Figure 11-12: Cash Levels Forecasts for IWCM Scenarios – Sewerage

12. Asset management

Council's Water supply and Sewerage Asset Management Plans provide an overview of the asset management systems, procedures and strategies in place to ensure delivery of services in a safe, reliable and cost-effective manner. Council's systems to manage assets include:

- Maintaining up to date water supply and sewer asset registers with all necessary physical and financial details
- Reports of routine asset inspections for condition, operation and compliance
- Records of planned and unplanned maintenance incidents and customer requests

12.1 Total asset management plan

The total asset management plan (TAMP) presents the details of planned capital works and recurrent operations, maintenance, and management (OMA) expenditure over a 30-year planning horizon. TAMP provides vital inputs for managing infrastructure assets to meet the levels of service in the most cost-effective manner for the present as well as the future customers. It also helps Council to develop their long-term funding strategies by linking to a long-term financial plan which identifies funds required to implement capital and recurrent expenditure at affordable levels of customer charges.

12.1.1 Capital works

Capital works are generally categorised as follows.

Growth works	Works required to increase the capacity of facilities, to service new release areas, subdivisions, etc.
Improved level of service works (ILoS), including backlog works	Works to provide better public health and environmental standards, better service, higher reliability, or an extension of services to existing unserviced areas. Works in this category may be eligible for Government grants.
Asset renewal	Renewal and replacement of existing assets which have reached the end of their effective economic service life due to age, condition, or performance.

Asset creation/upgrade/expansion

The recommended IWCM strategy has enabled Council to develop and maintain a schedule of capital works into the future to satisfy the forecast service demands in terms of growth and improved levels of service over the planning horizon. Capital works identification and finalisation is based on the preferred options to address the asset system and performance issues.

All viable options for the provision of new assets or upgrades/ expansion of existing assets to cater for community requirements have been developed and assessed in terms of their economic, social and environmental benefits to achieve optimum solutions for creation of new assets or upgrading/ expansion existing infrastructure.

Asset renewal

Anticipating the need and timing for asset renewal and replacement is critically important to ensure that funding is available to carry out the identified renewal/ replacement works in a timely manner. For

the purpose of strategic planning, identification of the timing and costs of renewal requirements for water supply and sewerage assets has been undertaken adopting the following methodology in line with the IPWEA Practice Note 7, V3, 2016:

- Collation of the water and sewer assets/ facilities and components recorded for each of the asset/ facility from the Council's asset database/ asset registers. Council has been using a spreadsheet-based asset register to maintain and manage the records of sewerage assets.
- Labelling of components of assets with different useful lives as civil, mechanical, electrical and telemetry/instrumentation components. This is in line with the Australian Accounting Standards (AAS 16 and AASB116) that require assets comprised of significant parts with different useful lives to be depreciated separately (referred to as "componentisation") to enable a meaningful and accurate timing and costs of future renewals.
- Updating the current replacement costs of the assets/ components based on the latest revaluation records as at 2016-17 to the 2020-21 financial year using the relevant Construction Cost Index (CCI) prescribed by the NSW Reference Rates Manual – Valuation of water supply, sewerage, and stormwater assets (2021 update)
- Estimation of 'condition adjusted' remaining useful lives as a % of adopted useful lives of components listed in the asset registers. Where condition rating details of asset component levels are unavailable (underground assets), age based remaining useful lives have been considered. 'Condition adjusted' remaining useful lives of water and sewer asset components have been estimated during Council's asset revaluation as of 30 June 2021 for the purpose of reporting to OLG.
- Prioritisation of renewal of assets that are considered critical by adjusting the estimated remaining useful lives for 'criticality' of the assets/ facilities in consideration of the consequences of asset failure. The assets/ facilities with severe consequences of failure as identified by the Council have been assigned higher criticality ratings, and have been prioritised for earlier renewal to avoid probable major failures to service provision
- Development of asset renewal plans by collating the scheme/ facility-wise timing and costs of components (in terms of current replacement costs) for a 30-year period starting 2025/26, following the adjustment to the remaining useful life for asset criticality.
- Further review and refinement of the collated 30-year asset renewal works to align with the Council's 5-year capital budget, and to disaggregate the lumped-up renewal requirements, particularly for water and sewer mains, with a view to spread-out the renewal capital funding requirements.

Capital costs summaries

Council has further reviewed and preferred the IWCM scenario 2 and the corresponding 30-year capital works plans for water supply and sewerage for adoption as the long-term strategy. Summaries of capital works programs are presented in Figure 12-1 and Figure 12-2 respectively. Detailed schedule of 30-year capital works for water supply and sewerage are presented in Appendix B and Appendix C.

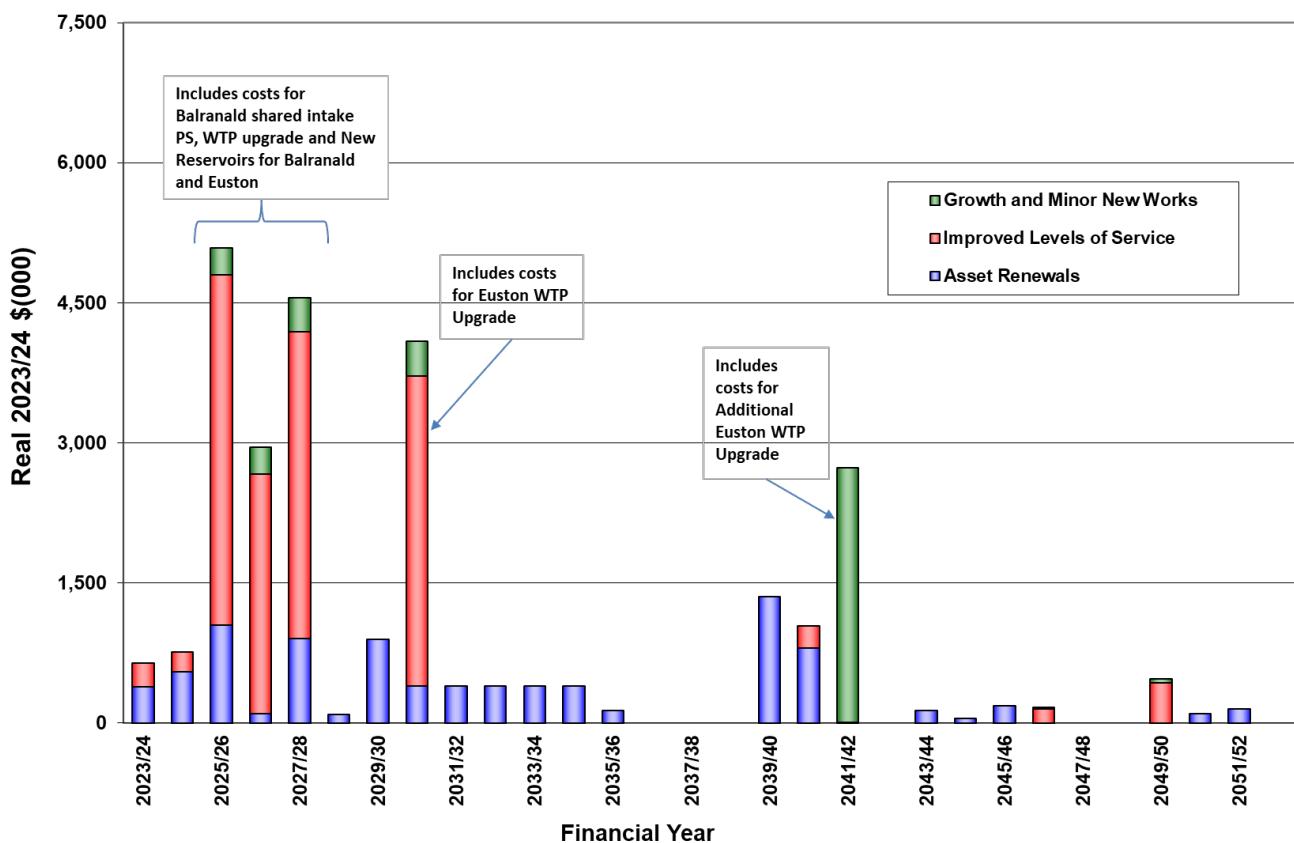


Figure 12-1: 30-year Capital cost summary – Water supply

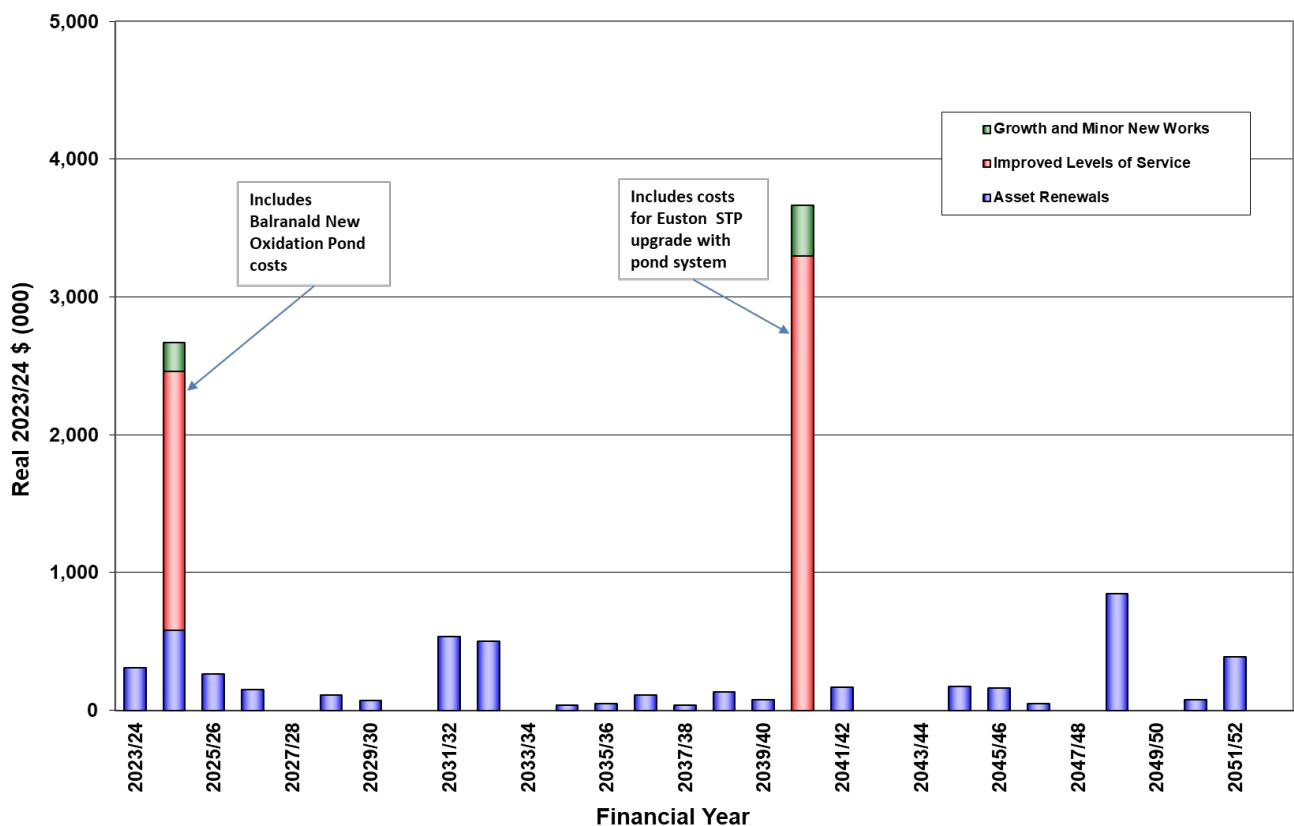


Figure 12-2: 30-year Capital cost summary – Sewerage

12.1.2 Recurrent operation and maintenance works

Operation of the systems includes regular activities to deliver services to customers using the asset/infrastructure. Maintenance includes all actions necessary for retaining an asset as near practicable to an appropriate service condition to keep assets operating. Routine maintenance involves regular ongoing work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again. Recurrent and ongoing costs of the TAM plan include the following:

Administration/ Management costs	Reflects true overheads associated with providing a service. Any cross subsidies with the General Fund should be eliminated or explicitly disclosed in the Annual Accounts.
Operations and Maintenance (O&M) costs	It is assumed that the current level of costs shown in the Financial Statements reflects a realistic level of expenditure for the current schemes. The projections assume costs increase in proportion to growth.
Additional OMA costs	Additional costs are included where specific activities have been identified for future years. This includes new initiatives, plus additional costs associated with new capital works identified as part of the adopted IWCM scenario.

Routine operation and maintenance expenditure is expected to trend in line with the value of asset stock. Additionally, Council has identified a number of best practice asset management initiatives that will require additional recurrent expenditure as identified below:

- Administration – as estimated by Council
- Engineering and supervision – as estimated and adopted by Council.
- Operation and maintenance expenses – For the water fund financial model, additional OM costs for the Balranald and Eusto scheme upgrades including new reservoirs and WTPs of average \$90 K/year from 2026-27 has been included. For the sewer fund financial model, additional OM costs for the proposed Balranald and Euston STP upgrades have been included.
- Energy costs – as estimated and adopted by Council.
- Chemical costs – as estimated and adopted by Council.
- Other expenses – as estimated by Council.
- Other revenue, grants, and contributions – as estimated by Council.

Summary of 30-year recurrent cost forecasts including for management, operation and maintenance for water supply and sewerage services are presented in Figure 12-3 and Figure 12-4.

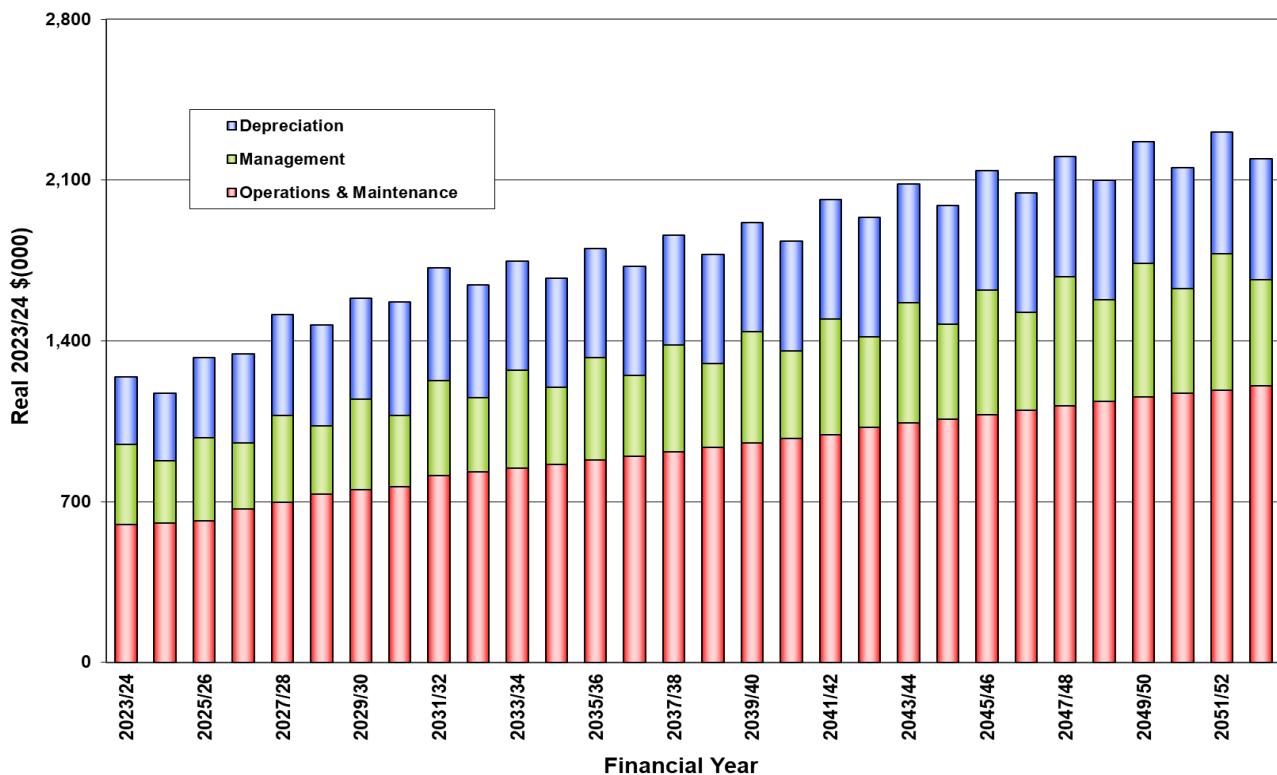


Figure 12-3: 30-year Recurrent O&M cost summary – Water supply

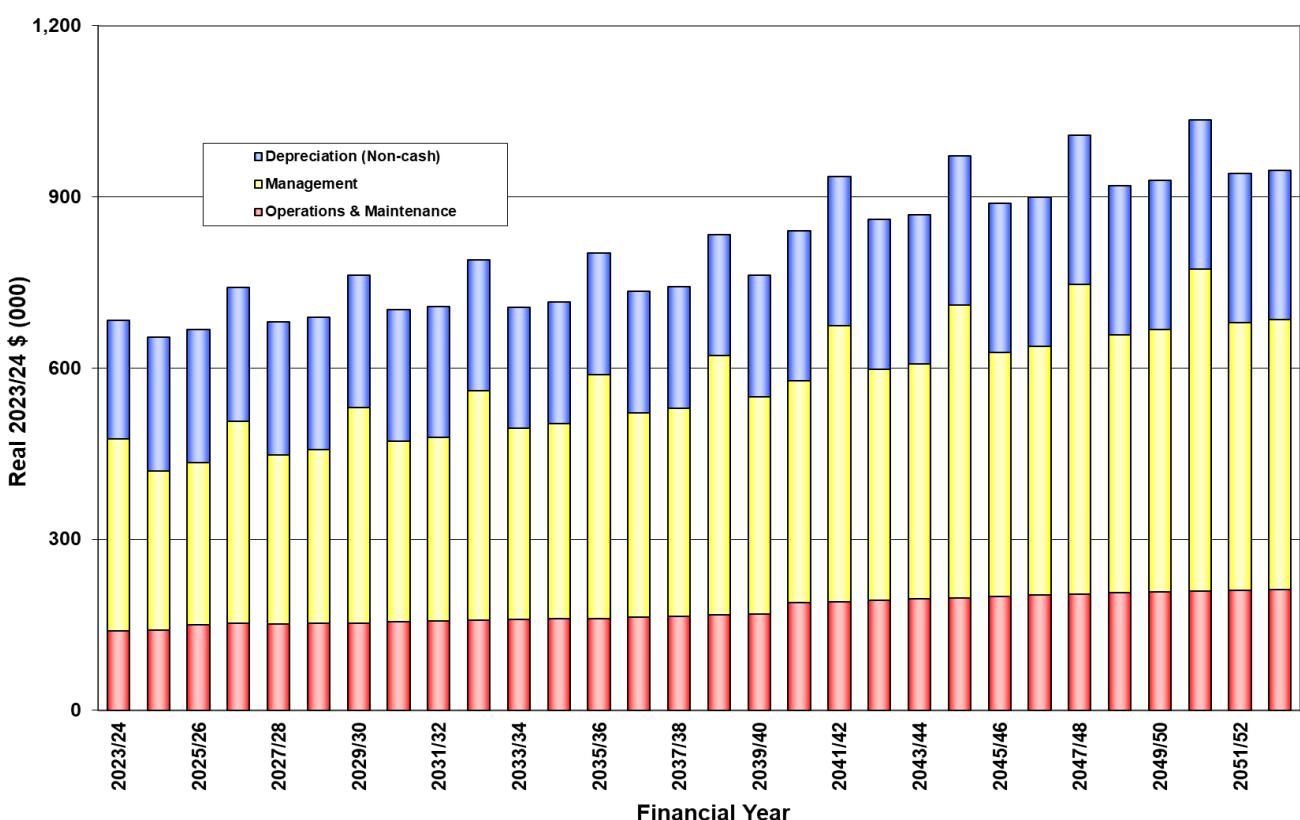


Figure 12-4: 30-year Recurrent O&M cost summary – Sewerage

13. Financial plan

FINMOD 4.0, the software developed by DCCEEW was used to develop the water and sewer fund financial models. The financial models have been developed for a 30-year planning horizon.

A stable level of annual residential charges for water supply and sewerage services has been achieved using Finmod by optimising the long-term funding strategy in meeting the demands of the capital works programs and day-to-day operations, while ensuring a minimum level of cash liquidity. For a particular Level of Service (LOS), FINMOD enables examination of the financial models for a range of funding options to determine the best mix of borrowing and internal funding.

The financial model balances the forecast income and expenditure for each service delivery option over the projected modelling period. Figure 13-1 illustrates the main income and expenditure elements which affect the financial modelling. The goals of the financial modelling are to:

- optimise the long-term funding strategy
- meet the demands of the capital works programme and other life cycle costs of the system assets
- ensure a minimum level of cash liquidity; and
- provide a forecast of the typical residential annual charges over the long- term.

The long-term financial plans demonstrate the sustainability of future actions and also demonstrate the sensitivity of model outcomes to some of the key assumptions made.

Funding is usually achieved from a mix of borrowing and direct revenue and can also be offset by receiving Government grants and subsidies where available.

Renewal programs would usually be funded from revenue, and some cash would be accumulated in anticipation of major projects, in order to reduce the need for borrowing. DCCEEW encourages the use of long-term loans because they support the idea of intergenerational equity and reduce the requirement of raising funds from existing customers in the short term.

If the resulting annual charges are considered unacceptable or unaffordable, some input variables, such as levels of service, can be negotiated to arrive at a satisfactory levels of annual charges. For example, to reduce the level of annual charges, Council may delay some of the capital works, reduce customer

levels of service for service interruptions or may take long-term structured loans. Council's charging and pricing policies will also take into account corporate policies, approach to risk and the acceptability of charges to the community. Some of these risks are evident from the sensitivities presented in this plan.

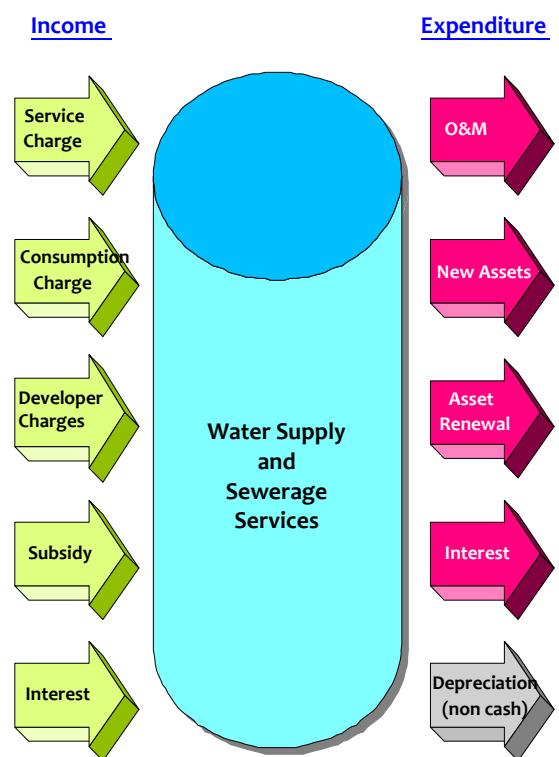


Figure 13-1: Elements of financial modelling

While the preferred model reflects the expected performance of the systems, it does not give any indication of the sensitivity of the proposed solutions should the basic assumptions used prove significantly different in practice.

For that reason, a sensitivity analysis is carried out if it is perceived that a variable may change significantly in the future. The value of a sensitivity analysis is that it shows:

- The sensitivity of the results to assumptions (uncontrollable variables); and
- The impact of changing controllable variables.

DCCEEW's Regulatory and Assurance Framework for Local Water Utilities, July 2022 suggests that several sensitivities should be carried out to test the robustness of the forecasts. With regards to controllable variables, such as type of loan structure, and level of developer charges, the financial model enables Council to make decisions to establish the most appropriate management policies.

With uncontrollable variables, Council is at the mercy of change. The downside risk of increased interest rates, or lower than forecast growth rates, or rise in energy costs, may be significant.

On-going Review

Over time, changes in model variables can have a significant impact on the accuracy of model forecasts, and this has implications for forward planning. It is recommended that the financial model be reviewed annually, and the financial planning be revisited regularly, preferably on a 3-yearly basis. The Regulatory and Assurance Framework for Local Water Utilities recommends annual updates if a Council has an active capital works program that requires government grant or subsidy.

13.1 Financial model inputs

Several variables and assumptions have been used in the development of the water and sewer fund financial models (Appendix D) and are summarised in Table 13-1 and Table 13-2. All costs and revenues of the input data (and the model outcomes) are in 2023-24 dollars unless stated otherwise. The model assumptions are based on a representative view of the impact of a number of factors. They have been grouped into the following five main policy areas and are discussed below:

1. Charges
2. Revenues and Expenditures
3. Service Provision
4. Funding Capital Works
5. Performance Measures

Table 13-1: Key Input Parameters – Water Fund Financial Model

Data Type	Input Data/ Assumption
Historical Data Source	Council's Financial Data Returns (FDRs) for 2021-22 and 2022-23
Financial Data	Average annual long-term inflation rate: 3.5% p.a. Annual Investment Interest Rate: 5.5% p.a. (default) – 5.0% p.a. adopted Annual Borrowing Interest Rate: 6.5% p.a. (default) – 6.5% p.a. adopted
Opening balances as of June 2023	Total cash & investments: \$3.67 M; Borrowing outstanding: \$0.599 M Minimum cash & investments: \$500 K Terms of new loans: 20 years

Demographic Base Data (2023-24)	<p>Total no. of residential assessments: Filtered water: Balranald – 532; Euston – 265 Raw water: Balranald – 467; Euston - 265</p> <p>Total no. of non-residential assessment – Balranald and Euston: Filtered water - 170; Raw water - 241</p> <p>Long-term (30-year) average assessment growth: 1.0% p.a. - Average 23 new customers per year connecting to both filtered and raw water supply.</p>
Revenue Splits	From 2024-25 onwards – 76.6%: 23.4% (Residential: Non-residential)
Current Annual Charges (2025-26)	<p>Filtered Water Supply: Access Charge : \$464 p.a. (20mm meter size) Usage Charge: \$1.82 per KL for first 400 KL; For above 400 KL - \$2.77 per KL Average residential water consumption: 205 KL/a Typical Residential Bill \$785 p.a.</p> <p>Raw Water Supply: Access Charge : \$404 p.a. (20mm meter size) Usage Charge: \$1.15 per KL for first 600 KL; For above 600 KL - \$1.65 per KL Average residential water consumption: 450 KL/a Typical Residential Bill \$864 p.a.</p>

* - For larger than 20 mm meter size water connections, the annual access charges increase by the square of the proportion of larger meter sizes to 20 mm.

Table 13-2: Key Input Parameters – Sewer Fund Financial Model

Data Type	Input Data/ Assumption
Historical Data	Council's Financial Data Returns (FDRs) for 2022-23 and 2023-24
Financial Data	<p>Average annual long-term inflation rate: 3.5% p.a. Annual Investment Interest Rate: 5.5% p.a. (default) – 5.0% p.a. adopted Annual Borrowing Interest Rate: 6.5% p.a. (default) – 6.5% p.a. adopted</p>
Opening Balances (as of June 2023)	<p>Total cash and investments: \$1.715 M; Borrowing outstanding: Nil Minimum cash & investments: \$500 K Terms of new loans: 20 years</p>
Demographic Base Data (2023-24)	<p>Total no. of residential assessment – Balranald and Euston: 814 Total no. of non-residential assessment – Balranald and Euston: 165 Long-term (30-year) average assessment growth: 1.0% p.a. Average 23 new customers per year connecting to sewerage services.</p>
Revenue Splits	From 2024-25 onwards – 65%: 35% (Residential: Non-residential)
Current Annual Charges (2023-24)	<p>Residential annual charge (all meter sizes): Occupied: \$698 p.a.; Vacant: \$524 p.a. (75%)</p> <p>Non-residential charge (20mm meter size)*: - Annual charge: \$698 p.a. (20 mm meter size) - Usage Charge: \$2.20 per KL</p>

* - For larger than 20 mm meter size non-residential water connections, the annual sewerage access charges increase by the square of the proportion of larger meter sizes to 20 mm.

13.1.1 Charges

Charging Structure

The projection of typical residential bills (TRBs) for water supply and sewerage are made in real (2024-25) dollars and, where feasible, a stable price path is maintained to demonstrate the lowest long-term price path achieved based on model assumptions. The forecast TRBs are maintained at constant level in real terms, unless where an increase is required for long-term financial viability and should be increased in line with the CPI (consumer price index) on an annual basis.

Typical residential bills calculated by the financial model will be higher than the average bills because the model considers account revenue losses due to vacant and/or unoccupied tenements and pensioner rebates. Council can use this information for setting its tariff structure for service pricing. The tariff structure is to be reviewed at least every 5 years and indexed in the interim.

Developer charges

Developer charges for water supply and sewerage services constitute significant revenue stream to the water and sewer funds and are impacted by the future capital work expenditure for service level improvements and service extensions to future service areas. The developer charges revenue, therefore, is an important input parameter in the financial models. Council is currently not levying any developer charges upon the new developments. Hence, no developer charges revenue has been considered for the financial models. Revenues and expenditures

Capital works

The capital work expenses form a significant component of the inputs. The capital works program adopted for financial modelling includes all the capital works for the preferred Strategy as incorporated in the 30-year Total Asset Management Plan (refer to section 12.1.1).

Recurring Costs

The financial model considers a number of ongoing recurrent costs from historic input details. By default, the model increases historical operation and maintenance expenses pro-rata assessment growth. This has been overridden where Council has provided revised estimates, for example, where the IWCM action plan requires new initiatives, or where new works require additional operating resources as described in section 12.1.2.

13.1.2 Service provision

Growth projections

The assessment growth forecast as listed in input parameter Tables (refer to section 13.1) for the strategy development has been used for the financial forecasts.

Expected life of assets

The default average life of the system assets is based on the weighted average of long-lived structures and shorter-lived mechanical plant. These average lives are currently estimated by Council as 70 years for water supply and 75 years for sewerage.

Depreciation is a non-cash expense, which is dependent upon asset lives. The age of assets directly affects the level of future asset renewal works, which are part of the capital works program.

13.1.3 Funding capital works

Some, or all, capital works can be funded directly from accumulated cash reserves. To overcome intergenerational equity issues, it is considered to be a good practice to fully fund renewal programs out of internally generated cash (where practicable) and to borrow only for full or partial funding of new capital acquisitions.

Funds which are surplus to requirements can be used to further reduce or eliminate borrowing requirements, and to reduce interest payments.

Loans are taken out as required also to maintain the adopted minimum cash levels for the water and sewer funds.

Subsidies/grants for capital works

Financial assistance in the form of grants for capital works may be received under various funding programs by the State and Federal Governments such as the Restart NSW or the National Stronger Regions Fund (NSRF). The Program's guidelines, published by the Department of Planning and Environment, Infrastructure NSW and Commonwealth Department of Infrastructure and Regional Development, define the extent of the available grants/ subsidies.

The water fund financial model considered that 90% grant funding (\$12.04 Million in total) will be available for the potable water scheme upgrade capital works for both Balranald and Euston during the 30-year planning horizon. The sewer fund model also has considered availability of 90% grants (\$5.18 Million in total) for the Balranald and Euston STP upgrade capital works considered.

13.1.4 Performance measures

Council will annually review and report the performance of the water and sewer funds as required under the strategic planning processes of the Regulatory and Assurance Framework for Local Water Utilities, July 2022.

13.2 Assumptions and limitations of the Model

The projections of the financial models are mainly based on the previous two years historical financial records. Allowance is made for new initiatives, future rate forecasts, and maintenance of sustainable Levels of Service (LOS) as identified and adopted by Council.

The Total Asset Management Plan shows the best available cost estimates for the long-term capital, operational and maintenance expenditures used in the models for projecting the financial position over the next 30 years. Models will require updating as more accurate expenditure schedules become available.

The net operating results in the financial projections should be seen in light of the fact that the depreciation shown in the operating statement is not a cash item. The financial model manages the cash flow and keeps a running tally of the cumulative depreciation so that Council can appreciate the potential future liability for maintaining the value in the system and the LOS. By planning ahead and making optimum use of existing assets, a more cost effective and efficient service should result.

Typical Residential Bills are used as the performance indicators representing overall revenue requirements from residential customers. This should not be confused with the pricing structure.

Pricing, that is, the distribution of charges according to consumption or special customer groups, is the subject of a separate revenue planning exercise. Tariff structure for the services will need to take into account corporate policies, approach to risks such as lower than adopted growth rates, increase in interest rates, and the acceptability of charges to the community.

Financial model is not a substitute for regular annual budgeting (i.e., short-term financial planning). The model assumes that all expenses and income occur at the beginning of the year and therefore not suitable to track cash flow throughout the year. It is important, however, that the budgeting process is carried out within the framework of the forecasts made in the long-term financial plan.

13.3 Financial model outcomes – Water supply

13.3.1 Projected financial position

All costs and revenues in the input data and the model outcomes are in 2023-24 dollars unless stated otherwise, and CPI should be applied annually for the forecast years. The financial projections should be reviewed annually with respect to material changes to the proposed capital works program and/or to any of the underlying assumptions.

The preferred IWCM strategy of Council's water fund financial model considers availability of government grants or subsidy to the tune of \$12.04 Million for the potable water scheme upgrade capital works planned for Balranald and Euston during the 30-year planning horizon. Accordingly, the Typical Residential Bill (TRB) forecasts for the filtered and raw water service customers for the next 30 years is presented in Figure 13-2 below.

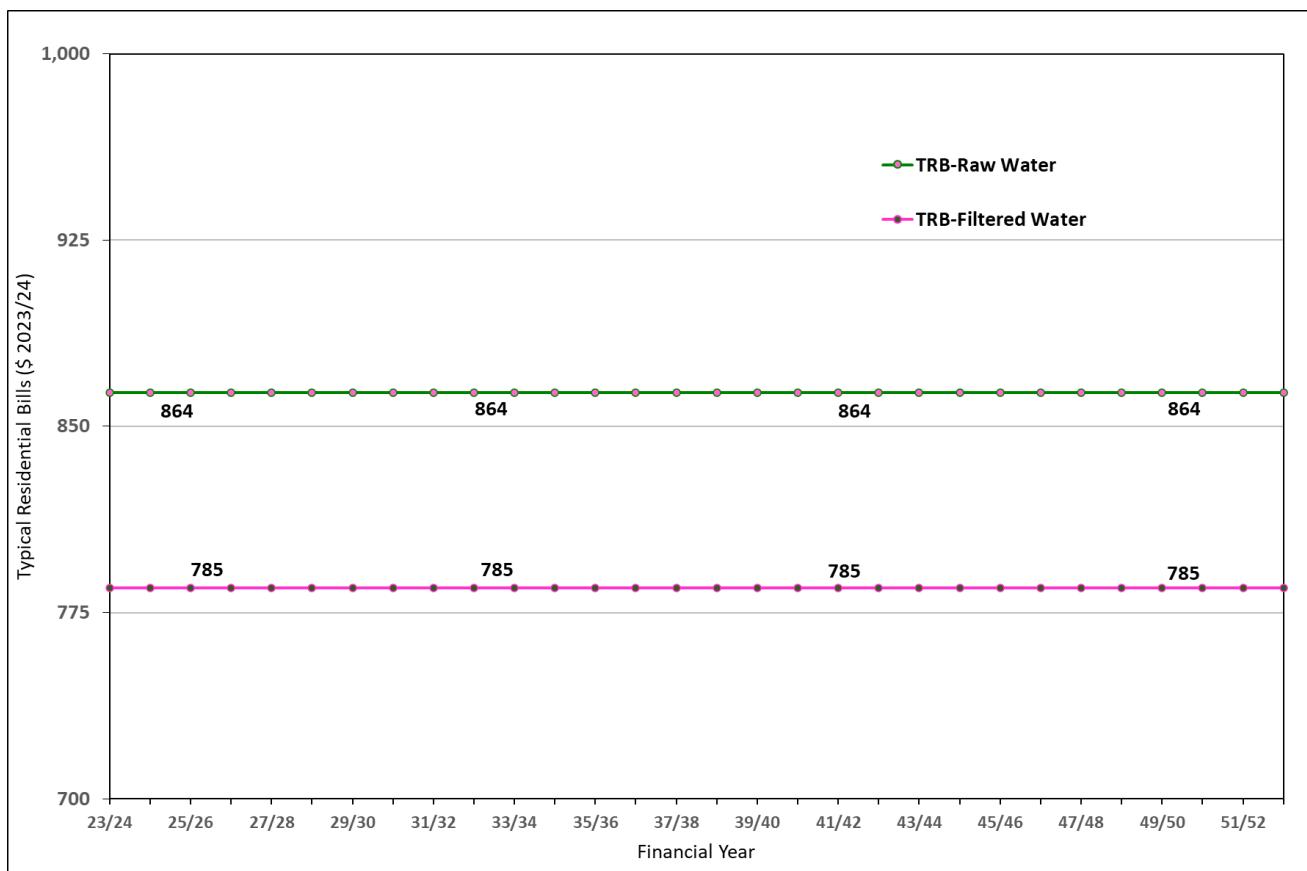


Figure 13-2: Typical Residential Bill - Water supply

The financial model demonstrates that the typical residential water bills of \$785 p.a. (\$840 p.a. in 2025-26 dollars) for filtered water and \$864 p.a. (\$920 p.a. in 2025-26 dollars) for raw water can be maintained at that level for all the remaining forecast period.

Council's water fund had an outstanding borrowing of \$599 K as of 30 June 2023. The model forecasts demonstrate that with the recommended price path, all the planned capital works can be fully funded

internally by Council and no new loans will be required. The projected levels of TRBs is sufficient to maintain liquidity with a minimum level of cash and investment of \$500 K in the water fund throughout the forecast period. The levels of cash and borrowing outstandings during the forecast period are presented in Figure 13-3.

Projected financial results for the water fund is presented in Table 13-3. Note that all the projected values are in 2023-24 dollars and will require indexing for CPI for the future years. More detailed financial output statements are presented in Appendix E.

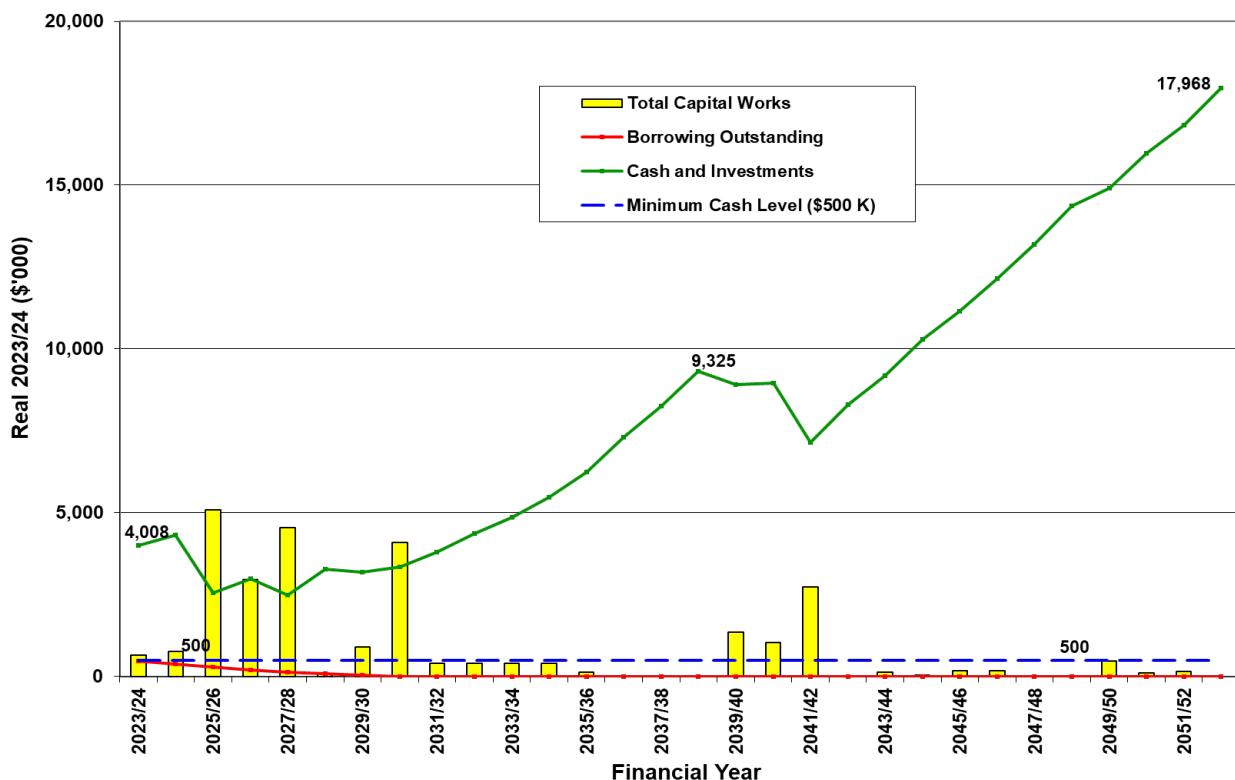


Figure 13-3: Cash and borrowing outstandings projections - Water supply

13.3.2 Sensitivity of financial projections – Water supply

Following sensitivities of the water fund financial model forecasts for the preferred strategy were analysed:

- No government grant/ subsidy available for the Balranald and Euston filtered water supply scheme upgrade capital works.
- Only 50% of the forecast growth occurs in the long-term.

The impacts of these variables on the water supply TRB forecasts, borrowing outstandings and cash levels for water fund are summarised in the following figures.

The sensitivity analysis demonstrate that the water supply TRB forecasts are not sensitive to lower assessment growth rates but very sensitive to the non-availability of grants/ subsidy. In the absence of availability of grants/ subsidy as expected, funding of the scheme upgrade projects need to be done by taking out new loans to the tune of \$10 Million and the servicing of these loans impact as the increase in the forecast TRBs as presented in Figure 13-4 and Figure 13-5.

Table 13-3: Projected Financial Results – Water supply

2023/24 (\$'000)	Revenue and Expenses			Capital Transactions		Financial Position				System Assets			Typical Residential Bills	
	Financial Year	Total Revenue	Total Expenses	Operating Result (Before Grants)	Acquisition of Assets	Principal Loan Payments	Cash and Investments	Borrowings	Total Assets	Total Liabilities	Net Assets Committed	Current Replacement Cost	Less: Accumulated Depreciation	Written Down Current Cost
2023/24	2,057	1,274	783	645	79	4,008	480	15,654	550	15,104	19,837	8,720	11,117	785
2024/25	2,194	1,199	995	759	80	4,308	384	16,272	454	15,818	20,046	8,442	11,605	785
2025/26	4,567	1,350	3,217	5,091	82	2,542	288	19,225	360	18,865	24,088	7,722	16,366	785
2026/27	4,558	1,360	3,198	2,954	84	2,992	195	22,117	269	21,848	26,942	7,992	18,950	785
2027/28	5,304	1,527	3,778	4,551	68	2,476	120	25,688	196	25,492	30,584	7,506	23,078	785
2028/29	2,072	1,479	594	94	37	3,279	79	25,950	157	25,793	30,584	7,833	22,751	785
2029/30	2,123	1,590	533	900	37	3,187	39	26,247	118	26,129	30,584	7,356	23,228	785
2030/31	5,480	1,571	3,909	4,086	38	3,341	0	29,880	81	29,799	34,269	7,430	26,839	785
2031/32	2,214	1,718	497	400	0	3,800	0	30,055	83	29,972	34,269	7,505	26,765	785
2032/33	2,270	1,644	626	400	0	4,373	0	30,293	84	30,209	34,269	7,579	26,689	785
2033/34	2,325	1,749	576	400	0	4,860	0	30,462	86	30,376	34,269	7,655	26,614	785
2034/35	2,381	1,673	708	400	0	5,462	0	30,691	88	30,603	34,269	7,730	26,540	785
2035/36	2,451	1,802	649	137	0	6,245	0	30,754	89	30,665	34,269	8,068	26,201	785
2036/37	2,528	1,725	803	0	0	7,294	0	30,819	91	30,728	34,269	8,543	25,726	785
2037/38	2,602	1,859	743	0	0	8,247	0	30,783	93	30,690	34,269	9,018	25,251	785
2038/39	2,678	1,778	900	0	0	9,325	0	30,788	96	30,692	34,269	9,494	24,775	785
2039/40	2,715	1,915	800	1,350	0	8,915	0	31,247	97	31,150	34,268	8,619	25,650	785
2040/41	2,758	1,833	924	1,040	0	8,957	0	31,668	99	31,569	34,509	8,297	26,211	785
2041/42	2,755	2,015	740	2,737	0	7,156	0	32,758	101	32,657	37,246	8,815	28,431	785
2042/43	2,822	1,936	886	0	0	8,298	0	32,713	103	32,610	37,246	9,333	27,913	785
2043/44	2,891	2,085	806	130	0	9,190	0	32,637	105	32,532	37,246	9,720	27,526	785
2044/45	2,962	1,989	973	49	0	10,301	0	32,560	107	32,453	37,246	10,189	27,056	785
2045/46	3,024	2,141	883	185	0	11,148	0	32,465	109	32,356	37,246	10,522	26,724	785
2046/47	3,090	2,046	1,044	171	0	12,143	0	32,400	111	32,289	37,417	11,042	26,375	785
2047/48	3,155	2,202	953	0	0	13,184	0	32,158	113	32,045	37,417	11,563	25,854	785
2048/49	3,222	2,099	1,123	0	0	14,361	0	31,949	115	31,834	37,417	12,084	25,333	785
2049/50	3,273	2,266	1,007	474	0	14,914	0	31,926	117	31,809	37,891	12,611	25,280	785
2050/51	3,313	2,155	1,157	104	0	15,972	0	31,719	118	31,601	37,891	13,035	24,857	785
2051/52	3,351	2,309	1,043	153	0	16,830	0	31,464	119	31,345	37,891	13,409	24,482	785
2052/53	3,394	2,195	1,199	0	0	17,968	0	31,145	120	31,025	37,891	13,936	23,955	785

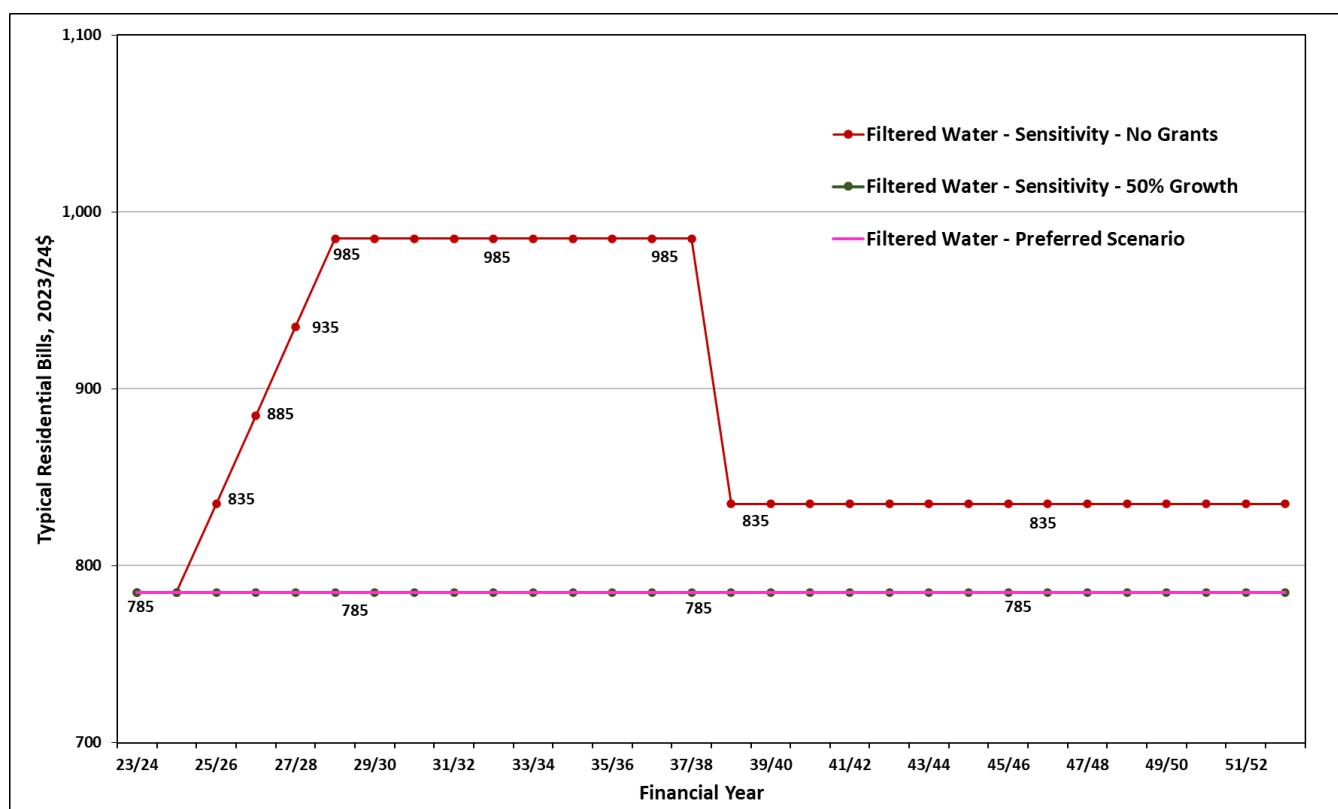


Figure 13-4: Sensitivity of TRB forecasts – Filtered water supply

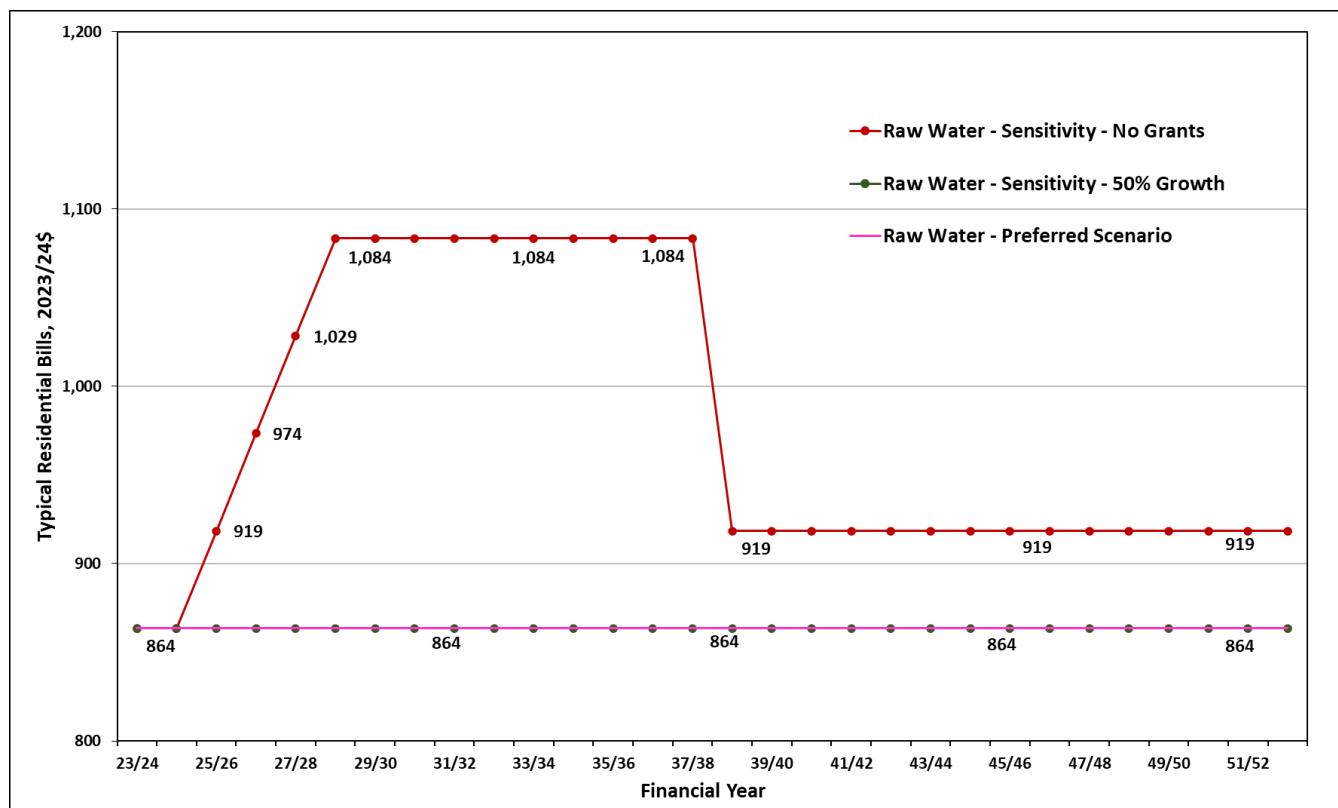


Figure 13-5: Sensitivity of TRB forecasts – Raw water supply

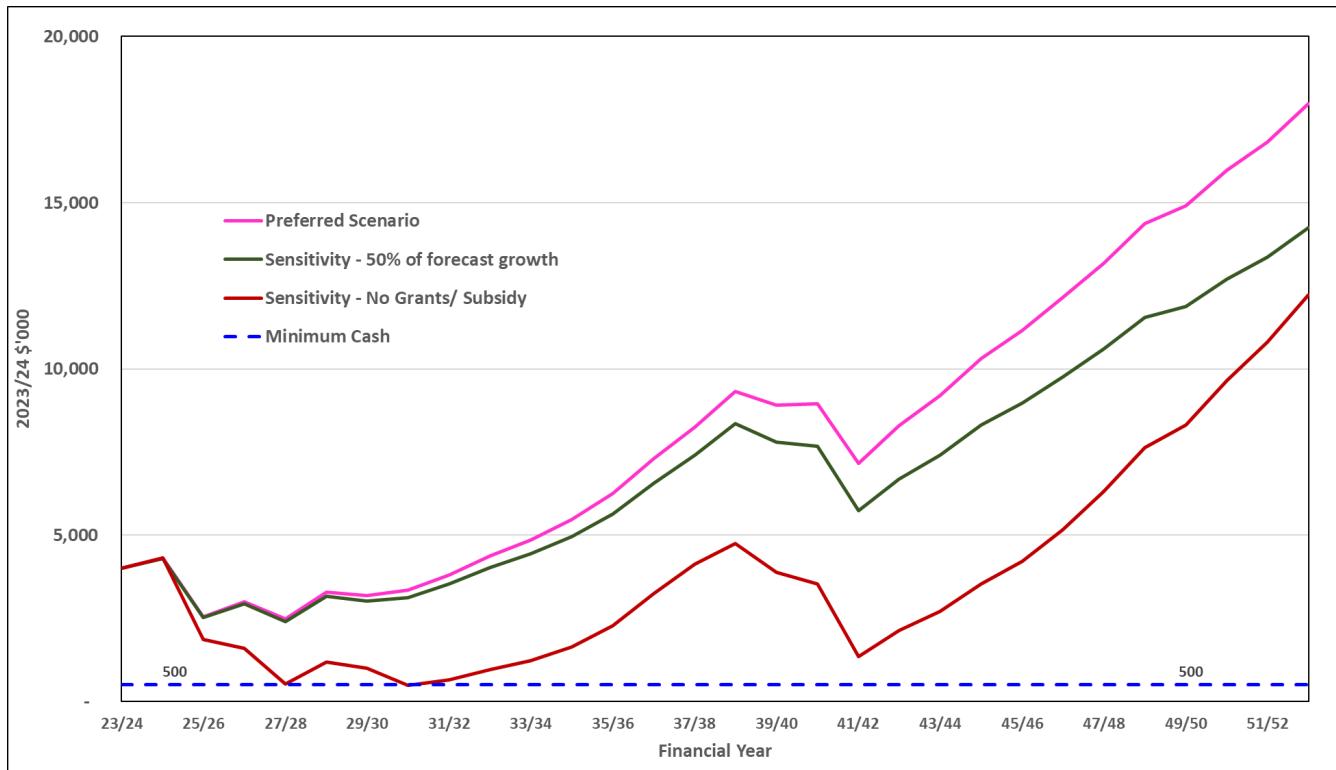


Figure 13-6: Sensitivity of Cash & Investments – Water supply

13.4 Financial model outcomes – Sewerage

13.4.1 Projected financial position

All costs and revenues in the input data and the model outcomes are in 2023-24 dollars unless stated otherwise, and CPI should be applied annually for the forecast years. The financial projections should be reviewed annually with respect to material changes to the proposed capital works program and/or to any of the underlying assumptions.

The preferred IWCM strategy of Council's sewer fund financial model considers availability of government grants/ subsidy for the Balranald and Euston STP works planned during the forecast period. Accordingly, the Typical Residential Bill (TRB) forecasts for the Council's sewerage service customers of both Balranald and Euston sewerage schemes for the next 30 years is presented in Figure 13-7.

The financial models demonstrate that the annual residential sewerage charge of \$698 p.a. (\$745 p.a. in 2025-26 dollars) can be maintained at that level for all the remaining years of the 30-year forecast period.

Council's sewer fund has no outstanding borrowing as of 30 June 2023. The model forecasts demonstrate that with the recommended price path, all the planned capital works can be funded internally by the Council, and no new loans will be required. The forecast levels of TRBs is sufficient to maintain liquidity with a minimum level of cash and investment of \$500 K in the sewer fund throughout the forecast period.

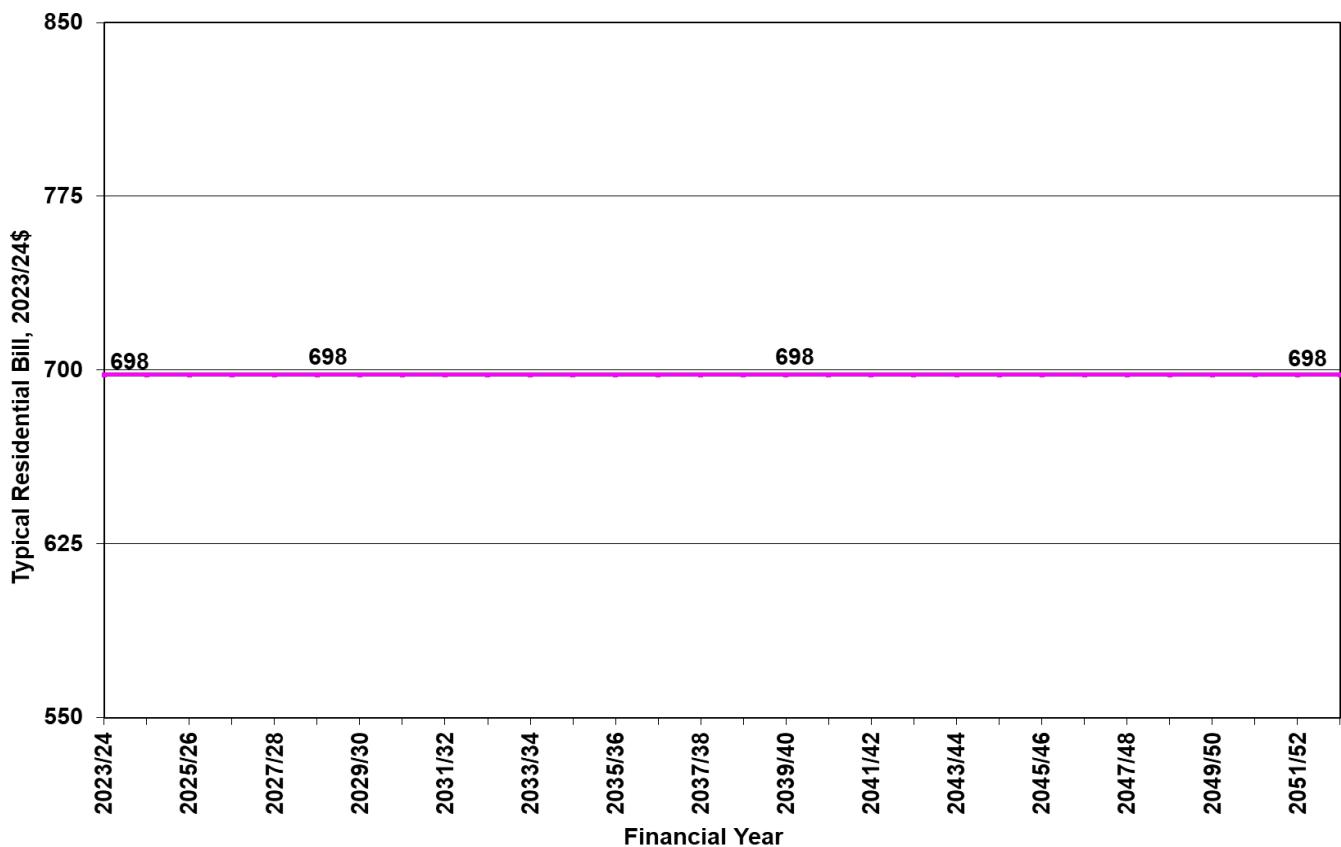


Figure 13-7: Typical Residential Bill - Sewerage

The levels of cash and borrowing outstandings during the forecast period are presented in Figure 13-8. Projected financial results for the water fund is presented in Table 13-3.

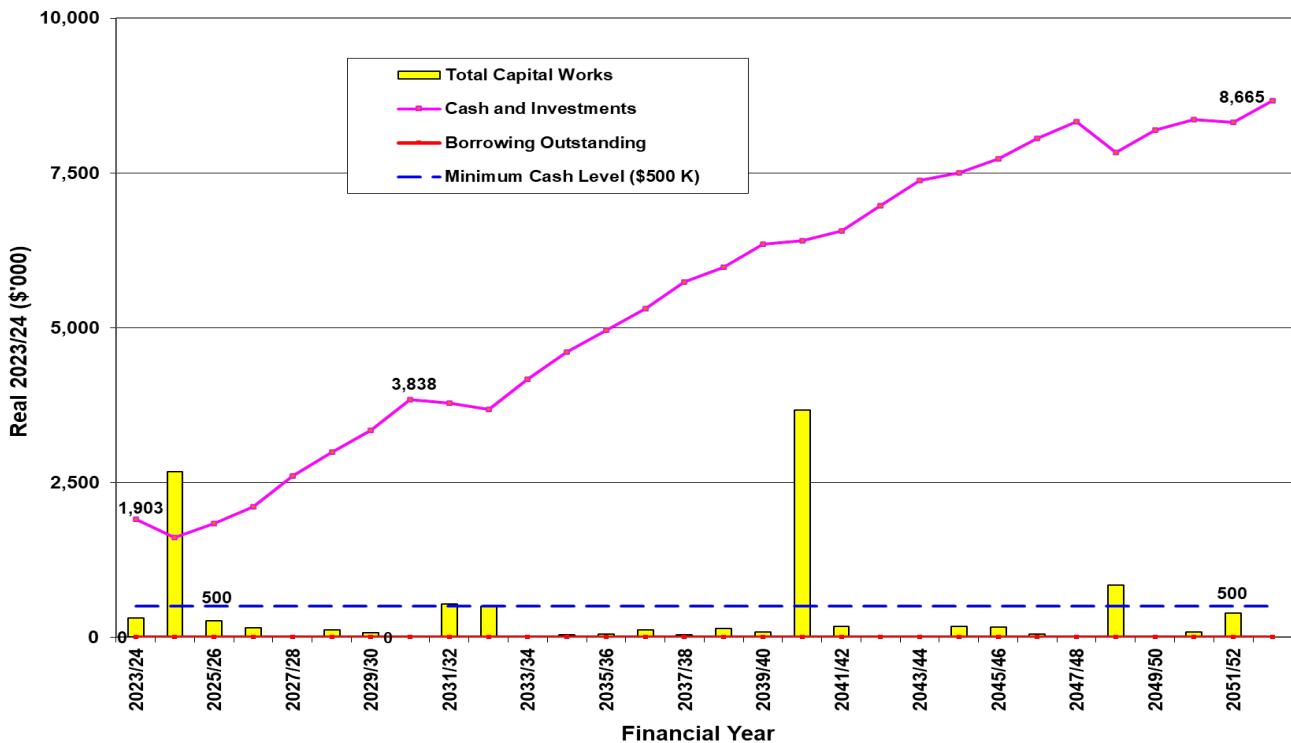


Figure 13-8: Cash and borrowing outstandings projections - Sewerage

Note that all the projected values are in 2024-25 dollars and will require indexing for CPI for the future years. More detailed financial output statements are presented in Appendix E.

Table 13-4: Projected Financial Results – Sewerage

Financial Year	Revenue and Expenses			Capital Transactions		Financial Position				System Assets			Typical Residential Bills	
	Total Revenue	Total Expenses	Operating Result (Before Grants)	Acquisition of Assets	Principal Loan Payments	Cash and Investments	Borrowings	Total Assets	Total Liabilities	Net Assets Committed	Current Replacement Cost	Less: Accumulated Depreciation	Written Down Current Cost	
2023/24	974	684	290	307	0	1,903	0	12,677	12	12,665	14,325	3,820	10,505	698
2024/25	2,858	654	2,204	2,668	0	1,607	0	14,804	12	14,792	16,414	3,457	12,957	698
2025/26	979	667	312	263	0	1,832	0	15,054	12	15,042	16,415	3,408	13,007	698
2026/27	998	740	257	149	0	2,110	0	15,239	13	15,226	16,414	3,474	12,940	698
2027/28	1,018	681	337	0	0	2,606	0	15,492	13	15,479	16,414	3,689	12,726	698
2028/29	1,043	689	354	111	0	2,989	0	15,744	13	15,731	16,414	3,791	12,623	698
2029/30	1,060	763	297	70	0	3,343	0	15,925	14	15,911	16,414	3,936	12,478	698
2030/31	1,082	702	380	0	0	3,838	0	16,176	14	16,162	16,414	4,149	12,265	698
2031/32	1,090	708	382	537	0	3,780	0	16,411	14	16,397	16,414	3,826	12,588	698
2032/33	1,092	789	303	500	0	3,683	0	16,566	15	16,551	16,414	3,540	12,874	698
2033/34	1,105	708	398	0	0	4,166	0	16,818	15	16,803	16,414	3,753	12,661	698
2034/35	1,125	715	410	37	0	4,610	0	17,066	15	17,051	16,413	3,929	12,485	698
2035/36	1,142	801	340	50	0	4,955	0	17,226	15	17,211	16,414	4,092	12,322	698
2036/37	1,161	735	426	111	0	5,312	0	17,460	15	17,445	16,414	4,193	12,220	698
2037/38	1,176	743	434	37	0	5,739	0	17,685	15	17,670	16,413	4,369	12,044	698
2038/39	1,191	834	356	134	0	5,978	0	17,821	16	17,805	16,413	4,448	11,965	698
2039/40	1,204	762	442	79	0	6,350	0	18,031	16	18,015	16,413	4,582	11,831	698
2040/41	4,513	840	3,674	3,666	0	6,401	0	21,459	16	21,443	20,079	4,844	15,236	698
2041/42	1,220	937	284	169	0	6,559	0	21,495	16	21,479	20,079	4,937	15,142	698
2042/43	1,237	860	377	0	0	6,974	0	21,617	16	21,601	20,079	5,199	14,880	698
2043/44	1,251	870	381	0	0	7,379	0	21,727	16	21,711	20,079	5,461	14,618	698
2044/45	1,259	972	287	175	0	7,503	0	21,732	16	21,716	20,079	5,549	14,530	698
2045/46	1,268	888	380	159	0	7,729	0	21,822	15	21,807	20,079	5,651	14,427	698
2046/47	1,282	900	382	50	0	8,060	0	21,907	16	21,891	20,079	5,864	14,215	698
2047/48	1,291	1,008	283	0	0	8,331	0	21,881	16	21,865	20,079	6,126	13,953	698
2048/49	1,285	920	365	844	0	7,829	0	21,926	17	21,909	20,079	5,544	14,535	698
2049/50	1,298	928	370	0	0	8,194	0	21,992	17	21,975	20,079	5,805	14,273	698
2050/51	1,303	1,035	267	79	0	8,366	0	21,945	17	21,928	20,079	5,988	14,091	698
2051/52	1,299	941	358	386	0	8,315	0	21,983	17	21,966	20,079	5,864	14,215	698
2052/53	1,318	947	371	0	0	8,665	0	22,036	17	22,019	20,079	6,126	13,953	698

13.4.2 Sensitivity of financial projections – Sewerage

Following sensitivities of the sewer fund financial model forecasts for the preferred strategy were analysed:

- No government grant/ subsidy available for the upgrades of Balranald and Euston STPs.
- Only 50% of the forecast growth occurs in the long-term.

The analysis demonstrated that there are no impacts of these variables on the sewerage TRB forecasts. In the absence of availability of grants/ subsidy as expected by the Council, funding of the new

Balranald oxidation pond treatment system will need to be part-funded by a new loan of \$1.0 Million. The impact on cash levels for sewer fund for the sensitivity cases is presented in the following figure.

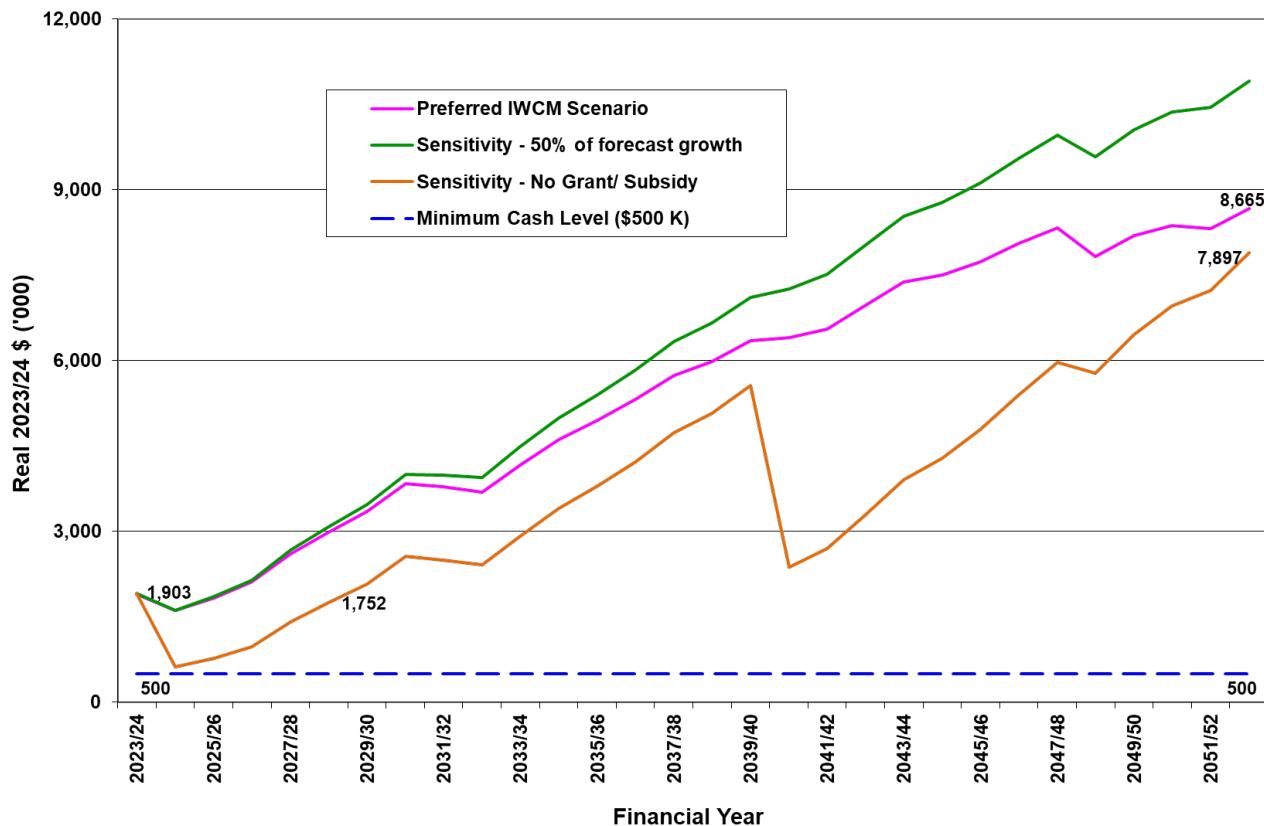


Figure 13-9: Sensitivity of Cash and Investments – Sewerage

14. References

NSW Public Works (December 2020). Integrated Water Cycle Management Strategy – Issues Paper, Report No. WSR-19054. Report prepared for Baranald Shire Council.

NSW Public Works (August 2025). Integrated Water Cycle Management Strategy – Options Assessment and Scenario Analysis, Report No. WSR-21001. Report prepared for Baranald Shire Council.

Appendix A Present Value Cost Analysis

A.1 Water supply scenarios

A.2 Sewerage scenarios

Appendix B 30-year Capital Works Programs – Water Supply

- B.1 30-year Water capital works plan – Baseline**
- B.2 30-year Water capital works plan – Scenario 1**
- B.3 30-year Water capital works plan – Scenario 2**
- B.4 30-year Water capital works plan – Scenario 3**

Appendix C 30-year Capital Works Programs – Sewerage

- C.1 30-year Sewerage capital works plan – Baseline**
- C.2 30-year Sewerage capital works plan – Scenario 1**
- C.3 30-year Sewerage capital works plan – Scenario 2**

Appendix D Financial Model Input Data

D.1 Financial model input data – Water Supply

D.2 Financial model input data – Sewerage

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Historical Operating Statement

FINMOD
DEPARTMENT OF
COMMERCE

2021/22* 2022/23*

EXPENSES

Management Expenses	90	261
Administration	90	261
Engineering and Supervision		
Operation and Maintenance Expenses	480	521
Operation Expenses		
Maintenance Expenses	332	387
Energy Costs	60	30
Chemical Costs	65	76
Purchase of Water	23	28
Depreciation	287	145
System Assets	287	145
Plant & Equipment		
Interest Expenses	43	36
Other Expenses	15	52
TOTAL EXPENSES	915	1015

REVENUES

Rates & Service Availability Charges	807	890
Residential	598	669
Non-Residential	209	221
User Charges	762	710
Sales of Water : Residential	619	558
Sales of Water : Non-Residential	143	152
Extra Charges	19	6
Interest Income		90
Other Revenues	71	74
Grants	7	6
Grants for Acquisition of Assets		
Pensioner Rebate Subsidy	7	6
Other Grants		
Contributions	0	0
Developer Charges		
Developer Provided Assets		
Other Contributions		
TOTAL REVENUES	1666	1776
OPERATING RESULT	751	761
OPERATING RESULT (less Grants for Acq of Assets)	751	761

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Historical Statement of Financial Position

FINMOD
DEPARTMENT OF
COMMERCE

2021/22* 2022/23*

Cash and Investments	2968	3670
Receivables	296	315
Inventories		

Property, Plant & Equipment	9901	10599
System Assets (1)	9664	10378
Plant & Equipment	237	221

Other Assets		34
--------------	--	----

TOTAL ASSETS	13199	14584
---------------------	--------------	--------------

LIABILITIES

Bank Overdraft		
Creditors	71	67
Borrowings	633	559
Provisions		

TOTAL LIABILITIES	704	626
--------------------------	------------	------------

NET ASSETS COMMITTED	12495	13958
-----------------------------	--------------	--------------

EQUITY

Accumulated Operating Result	6052	6813
Asset Revaluation Reserve	6443	7145

TOTAL EQUITY	12495	13958
---------------------	--------------	--------------

(1) Notes to System Assets

Current Replacement Cost	17460	18915
Less: Accumulated Depreciation	7796	8537
Written Down Current Cost	9664	10378

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

FINMOD
DEPARTMENT OF
COMMERCE

Base Forecast Data

	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	2046/47	2047/48			
Financial Data																												
Inflation Rate - General (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50			
Inflation Rate - Capital Works (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50			
Borrowing Interest Rate for New Loans (%)																												
Investment Interest Rate (%)	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			
Number of Assessments																												
Growth Rate (%)																												
Residential Assessments	1.25	1.24	2.00	2.56	2.49	2.43	2.37	2.32	2.22	2.17	2.12	2.08	2.08	2.48	2.42	2.36	2.31	2.26	2.21	2.16	2.11	2.07	2.03	1.99	1.95	1.91		
Non-Residential Assessments	0.69	0.68	0.68	0.68	0.67	0.67	0.66	0.66	0.65	0.65	0.65	0.64	0.64	0.64	0.63	0.63	0.63	0.62	0.62	0.61	0.61	0.61	0.60	0.60	0.59			
Total Assessments	1.17	1.16	1.81	2.30	2.24	2.19	2.15	2.10	2.02	1.98	1.94	1.90	1.90	2.26	2.21	2.16	2.11	2.07	2.03	1.99	1.95	1.91	1.87	1.84	1.81	1.77		
Number of New Assessments																												
Residential																												
Residential	22	22	36	47	47	47	47	47	46	46	46	46	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	
Non-Residential	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	2	2	2
Total New Assessments	24	24	38	49	49	49	49	49	48	48	48	48	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	
Projected Number of Assessments																												
Residential																												
Residential	1781	1803	1839	1886	1933	1980	2027	2074	2120	2166	2212	2258	2314	2370	2426	2482	2538	2594	2650	2706	2762	2818	2874	2930	2986			
Non-Residential	292	294	296	298	300	302	304	306	308	310	312	314	316	318	320	322	324	326	328	330	332	334	336	338	340			
Total Projected Assessments	2073	2097	2135	2184	2233	2282	2331	2380	2428	2476	2524	2572	2630	2688	2746	2804	2862	2920	2978	3036	3094	3152	3210	3268	3326			
Backlog Assessments																												
Residential																												
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	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	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	0	0	0
Developer Charges / Vacant Assessments (Values in 2023/24 \$)																												
Developer Charges \$/Assessment																												
Residential																												
Residential	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Non-Residential	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Number of Vacant Residential Assessments																												
Average Charge of Vacant Assessments	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	
% of Occupied Assessments	55	55	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Depreciation of Existing Plant and Equipment (Values in 2023/24 \$'000)																												
Current Replacement Cost of System Assets																												
Override	19577																											
Written Down Current Cost of System Assets																												
Override	10741																											
Annual Depreciation of Existing System Assets																												
Override	150																											
Written Down Value of Plant and Equipment																												
Override	221																											
Annual Depreciation of Existing Plant and Equipment																												
Equipment	22	22	22	22	22	22	22	22	22	22	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

FINMOD
DEPARTMENT OF
COMMERCE

Base Forecast Data

	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	2046/47	2047/48	
Existing Loan Payments (Values in Inflated \$'000)																										
Existing Loan Payments : Principal (Total:559)	79	83	88	93	78	44	46	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Existing Loan Payments : Interest (Total:125)	32	27	22	17	12	8	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Capital Works Program (Values in 2023/24 \$'000)																										
Subsidised Scheme (Total:14215)	260	210	3754	2569	3278	0	0	3317	0	0	0	0	0	0	0	0	0	240	6	0	0	0	0	154	0	
Other New System Assets (Total:4101)	0	0	288	285	364	0	0	369	0	0	0	0	0	0	0	0	0	0	0	2731	0	0	0	0	17	0
Renewals (Total:8894)	385	550	1049	100	908	94	900	400	400	400	400	400	137	0	0	0	1350	800	0	0	130	49	185	0	0	0
Total Capital Works (Total:27210)	645	760	5091	2954	4550	94	900	4086	400	400	400	137	0	0	0	0	1350	1040	2737	0	130	49	185	171	0	0
Grant For Acquisition of Assets (% of Subsidised Scheme)	34.62	92.86	68.97	100.00	100.00	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	
Grant For Acquisition of Assets (\$ (Total:12038)	90	195	2589	2569	3278	0	0	3317	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 2023/24 \$'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	

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Revised/Additional Forecast Data

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48	
OMA / Revenue Overrides (Values in 2023/24 \$'000)																										
Administration	273	276	281	287	293	299	305	311	317	323	329	335	343	351	359	367	375	383	391	399	407	415	423	431	439	
Override	352	274	362	285	379	298	395	311	412	323	428	336	446	351	466	366	485	381	505	396	525	412	544	427	564	
Engineering and Supervision	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	
Override	0	0	0	0	39	49	71	73	74	108	110	112	114	117	119	122	125	127	130	132	147	150	152	155	158	161
Maintenance Expenses	405	410	417	427	437	447	457	467	476	485	494	503	514	525	536	547	558	569	580	591	602	613	624	635	646	
Override	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	
Energy Costs	31	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	
Override	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	
Chemical Costs	80	81	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126	
Override	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	
Purchase of Water	29	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	
Override	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	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	
Override	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 Revenue	77	78	79	81	83	85	87	89	91	93	95	97	99	101	103	105	107	109	111	113	115	117	119	121	123	
Override	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
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	
Override	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	
Override	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 Overrides (Values in 2023/24 \$'000)																										
Calculated from Scheme Data	24	24	38	49	49	49	49	49	49	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
Override	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 (Values in Inflated \$)																										
Pensioner Rebate per Pensioner (\$)	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50		
Override	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 (%)	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00		
Override	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 Pensioner Assessments	127	128	131	134	137	141	144	147	151	154	157	161	165	169	172	176	180	184	188	192	196	200	204	208	212	
Override	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	
Percentage of Pensioners (%)	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11		
Override	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	11	11	11	12	12	12	13	13	13	14	14	14	15	15	15	15	16	16	16	17	17	18	18	18	19	
Pensioner Rebate Subsidy	6	6	6	7	7	7	7	7	7	8	8	8	8	8	8	8	9	9	9	9	10	10	10	10	10	
Revenue Split (%)																										
Residential Rates	39.71	39.76	39.83	39.93	40.05	40.18	40.28	40.40	40.51	40.60	40.69	40.78	40.87	40.95	41.05	41.12	41.21	41.28	41.35	41.43	41.49	41.57	41.63	41.70	41.76	
Override	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 Rates	13.41	13.35	13.29	13.16	13.03	12.90	12.78	12.65	12.54	12.44	12.33	12.23	12.13	12.04	11.94	11.86	11.77	11.68	11.60	11.52	11.44	11.36	11.29	11.22	11.14	
Override	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	
Sales of Water: Residential	36.90	36.95	36.99	37.11	37.22	37.32	37.43	37.53	37.62	37.71	37.80	37.89	37.97	38.05	38.13	38.20	38.27	38.35	38.42	38.48	38.55	38.61	38.68	38.74	38.80	
Override	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	
Sales of Water: Non-Residential	9.20	9.16	9.12	9.03	8.94	8.85	8.77	8.68	8.60	8.53	8.46	8.39	8.32	8.26	8.19	8.13	8.07	8.01	7.96	7.90	7.85	7.80	7.74	7.69	7.65	
Override	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	0.78	0.78	0.77	0.77	0.76	0.75	0.74	0.74	0.73	0.72	0.72	0.71	0.71	0.70	0.69	0.69	0.68	0.68	0.67	0.67	0.66	0.66	0.65	0.65		
Override	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 Non-Residential Revenue (%)	22.61	22.51	22.41	22.19	21.97	21.75	21.55	21.33	21.14	20.97	20.79	20.62	20.45	20.30	20.13	19.99	19.84	19.69	19.56	19.42	19.29	19.16	19.03	18.91	18.79	
Total Residential Revenue (%)	76.61	76.71	76.82	77.04	77.27	77.50	77.71	77.93	78.13	78.31	78.49	78.67	78.84	79.00	79.18	79.32	79.48	79.63	79.77	79.91	80.04	80.18	80.31	80.44	80.56	
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Revised/Additional Forecast Data

FINMOD
DEPARTMENT OF
COMMERCE

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 2046/47 2047/48

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Revised/Additional Forecast Data

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48
New Loan Payment Overrides (Values in Inflated \$'000)																									
Standard Loan Payments: Principal	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
Standard Loan Payments: Interest	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
Structured Loan Payments: Principal	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
Structured Loan Payments: Interest	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
Capitalised Interest	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 Loan Payments: Principal Override	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 Loan Payments: Interest Override	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
Capitalised Interest Override	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

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

Historical Operating Statement

FINMOD
DEPARTMENT OF
COMMERCE

2021/22* 2022/23*

EXPENSES

Management Expenses	80	264
Administration	80	264
Engineering and Supervision		
Operation and Maintenance Expenses	134	131
Operation Expenses		
Maintenance Expenses	117	109
Energy Costs	17	22
Chemical Costs		
Depreciation	180	180
System Assets	180	180
Plant & Equipment		
Interest Expenses		
Other Expenses	14	3
TOTAL EXPENSES	408	578

REVENUES

Rates & Service Availability Charges	694	761
Residential	476	489
Non-Residential	218	272
Trade Waste Charges	11	8
Other Sales and Charges		
Extra Charges	8	39
Interest Income		
Other Revenues	29	32
Grants	6	6
Grants for Acquisition of Assets		
Pensioner Rebate Subsidy	6	6
Other Grants		
Contributions	0	0
Developer Charges		
Developer Provided Assets		
Other Contributions		
TOTAL REVENUES	748	886
OPERATING RESULT	340	308
OPERATING RESULT (less Grants for Acq of Assets)	340	308

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

Historical Statement of Financial Position

FINMOD
DEPARTMENT OF
COMMERCE

2021/22* 2022/23*

Cash and Investments	1252	1715
Receivables	60	78
Inventories		
Property, Plant & Equipment	9554	10244
System Assets (1)	9329	10033
Plant & Equipment	225	211
Other Assets		88
TOTAL ASSETS	10954	12037
LIABILITIES		
Bank Overdraft		
Creditors	15	12
Borrowings		
Provisions		
TOTAL LIABILITIES	15	12
NET ASSETS COMMITTED	10939	12025
EQUITY		
Accumulated Operating Result	3704	4078
Asset Revaluation Reserve	7235	7947
TOTAL EQUITY	10939	12025
(1) Notes to System Assets		
Current Replacement Cost	12765	13841
Less: Accumulated Depreciation	3436	3808
Written Down Current Cost	9329	10033

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

FINMOD
DEPARTMENT OF
COMMERCE

Base Forecast Data

	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	2046/47	2047/48		
Financial Data																											
Inflation Rate - General (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50		
Inflation Rate - Capital Works (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50		
Borrowing Interest Rate for New Loans (%)																											
Investment Interest Rate (%)	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		
Number of Assessments																											
Growth Rate (%)																											
Residential Assessments	0.61	0.61	1.09	1.32	1.30	1.29	1.27	1.25	1.24	1.22	1.21	1.19	1.39	1.38	1.36	1.34	1.32	1.30	1.29	1.27	1.25	1.24	1.22	1.21	1.19		
Non-Residential Assessments	0.00	0.61	0.00	0.60	0.00	0.60	0.00	0.60	0.00	0.59	0.00	0.59	0.00	0.58	0.00	0.58	0.00	0.58	0.00	0.57	0.00	0.57	0.00	0.57	0.00		
Total Assessments	0.51	0.61	0.91	1.20	1.09	1.17	1.06	1.15	1.04	1.12	1.02	1.10	1.18	1.25	1.15	1.22	1.12	1.20	1.10	1.17	1.07	1.14	1.05	1.12	1.03		
Number of New Assessments																											
Residential	5	5	9	11	11	11	11	11	11	11	11	11	13	13	13	13	13	13	13	13	13	13	13	13	13	13	
Non-Residential	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0		
Total New Assessments	5	6	9	12	11	12	11	12	11	12	11	12	13	14	13	14	13	14	13	14	13	14	13	14	13		
Projected Number of Assessments																											
Residential	819	824	833	844	855	866	877	888	899	910	921	932	945	958	971	984	997	1010	1023	1036	1049	1062	1075	1088	1101		
Non-Residential	165	166	166	167	167	168	168	169	169	170	170	171	171	172	172	173	173	174	174	175	175	176	176	177	177		
Total Projected Assessments	984	990	999	1011	1022	1034	1045	1057	1068	1080	1091	1103	1116	1130	1143	1157	1170	1184	1197	1211	1224	1238	1251	1265	1278		
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			
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			
Developer Charges / Vacant Assessments (Values in 2023/24 \$)																											
Developer Charges \$/Assessment																											
Residential	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Non-Residential	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Number of Vacant Residential Assessments	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
Average Charge of Vacant Assessments	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
% 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 2023/24 \$'000)																											
Current Replacement Cost of System Assets	14325																										
Written Down Current Cost of System Assets		10384																									
Annual Depreciation of Existing System Assets		186																									
Written Down Value of Plant and Equipment		211																									
Annual Depreciation of Existing Plant and Equipment		22	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

FINMOD
DEPARTMENT OF
COMMERCE

Base Forecast Data

	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	2046/47	2047/48
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 2023/24 \$'000)																									
Subsidised Scheme (Total:5180)	0	1881	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3299	0	0	0	0	0	0	0
Other New System Assets (Total:576)	0	209	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	367	0	0	0	0	0	0	0
Renewals (Total:4825)	307	578	263	149	0	111	70	0	537	500	0	37	50	111	37	134	79	0	169	0	0	175	159	50	0
Total Capital Works (Total:10581)	307	2668	263	149	0	111	70	0	537	500	0	37	50	111	37	134	79	3666	169	0	0	175	159	50	0
Grant For Acquisition of Assets (% of Subsidised Scheme)	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	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grant For Acquisition of Assets (\$ Total:5180)	0	1881	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3299	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 2023/24 \$'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

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

Revised/Additional Forecast Data

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48
OMA / Revenue Overrides (Values in 2023/24 \$'000)																									
Administration	275	277	280	283	286	289	292	295	298	301	304	307	311	315	319	323	327	331	335	339	343	347	351	355	359
Override	337	279	284	355	297	304	378	317	323	402	335	342	427	358	365	455	381	389	484	405	412	513	428	436	542
Engineering and Supervision	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
Override	0	0	8	9	9	9	9	9	9	10	10	10	10	10	11	11	11	30	30	31	32	32	33	34	34
Maintenance Expenses	113	114	115	116	117	118	119	120	121	122	123	124	125	127	128	130	131	133	134	136	137	139	140	142	143
Override	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
Energy Costs	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Override	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
Chemical Costs	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
Override	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	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Override	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 Revenue	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Override	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 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
Override	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
Override	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 Overrides (Values in 2023/24 \$'000)																									
Calculated from Scheme Data	10	12	17	24	22	24	22	24	22	24	22	24	22	27	29	27	29	27	29	27	29	27	29	27	29
Override	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 (Values in Inflated \$)																									
Pensioner Rebate per Pensioner (\$)	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	
Override	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 (%)	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	
Override	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 Pensioner Assessments	126	127	128	130	131	133	135	136	138	140	141	143	145	147	149	151	153	155	157	159	161	163	165	167	169
Override	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
Percentage of Pensioners (%)	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	
Pensioner Rebate	11	11	11	11	11	12	12	12	12	12	13	13	13	13	13	13	14	14	14	14	14	14	15	15	
Pensioner Rebate Subsidy	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	
Revenue Split (%)																									
Residential Rates	63.72	63.72	63.99	64.19	64.65	64.83	65.26	65.44	65.82	65.96	66.34	66.46	66.82	66.93	67.28	67.38	67.72	67.81	68.13	68.23	68.52	68.60	68.90	69.26	
Override	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 Rates	31.96	31.96	31.71	31.53	31.10	30.92	30.52	30.36	30.00	29.87	29.52	29.41	29.07	28.97	28.65	28.55	28.24	28.15	27.86	27.77	27.49	27.42	27.14	27.07	26.81
Override	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
Trade Waste Charges	1.25	1.25	1.26	1.26	1.27	1.28	1.29	1.29	1.30	1.30	1.31	1.31	1.32	1.32	1.32	1.33	1.33	1.34	1.34	1.35	1.35	1.36	1.36	1.36	
Override	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 Sales and charges	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	
Override	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	3.07	3.07	3.04	3.02	2.98	2.97	2.93	2.91	2.88	2.87	2.83	2.82	2.79	2.78	2.75	2.74	2.71	2.70	2.67	2.66	2.64	2.63	2.60	2.57	
Override	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 Non-Residential Revenue (%)	33.21	33.21	32.97	32.79	32.37	32.20	31.81	31.65	31.30	31.17	30.83	30.72	30.39	30.29	29.97	29.88	29.57	29.49	29.20	29.11	28.84	28.77	28.50	28.43	28.17
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Total Residential Revenue (%)	63.72	63.72	63.99	64.19	64.65	64.83	65.26	65.44	65.82	65.96	66.34	66.46	66.82	66.93	67.28	67.38	67.72	67.81	68.13	68.23	68.52	68.60	68.90	69.26	

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

FINMOD
DEPARTMENT OF
COMMERCE

Revised/Additional Forecast Data

	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	2046/47	2047/48
New Loan Payment Overrides (Values in Inflated \$'000)																									
Standard Loan Payments: Principal	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
Standard Loan Payments: Interest	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
Structured Loan Payments: Principal	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
Structured Loan Payments: Interest	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
Capitalised Interest	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 Loan Payments: Principal Override	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 Loan Payments: Interest Override	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
Capitalised Interest Override	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

Appendix E Financial Model Output Data

E.1 Financial model output data – Water Supply

E.2 Financial model output data – Sewerage

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Operating Statement

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48
EXPENSES																									
Management Expenses	352	274	362	285	379	298	395	311	412	323	428	336	446	351	466	366	485	381	505	396	525	412	544	427	564
Administration	352	274	362	285	379	298	395	311	412	323	428	336	446	351	466	366	485	381	505	396	525	412	544	427	564
Engineering and Supervision	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
Operation and Maintenance Expenses	545	551	561	613	638	674	691	705	752	767	782	797	815	832	850	867	885	903	920	950	968	985	1003	1022	1039
Operation Expenses	0	0	0	39	49	71	73	74	108	110	112	114	117	119	122	125	127	130	132	147	150	152	155	158	161
Maintenance Expenses	405	410	417	427	437	447	457	467	476	485	494	503	514	525	536	547	558	569	580	591	602	613	624	635	646
Energy Costs	31	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Chemical Costs	80	81	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126
Purchase of Water	29	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Depreciation	291	293	350	390	441	440	440	492	491	492	475	475	475	475	475	475	475	475	518	518	518	518	518	520	521
System Assets	269	271	330	370	422	422	422	475	475	475	475	475	475	475	475	475	475	518	518	518	518	518	520	521	521
Plant & Equipment	22	21	21	20	19	19	18	17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expenses	32	26	21	15	10	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Expenses	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
TOTAL EXPENSES	1274	1199	1350	1360	1527	1479	1590	1571	1718	1644	1749	1673	1802	1725	1859	1778	1915	1833	2015	1936	2085	1989	2141	2046	2202
REVENUES																									
Rates & Service Availability Charges	902	912	925	946	970	991	1014	1037	1059	1080	1101	1123	1150	1178	1205	1231	1258	1284	1311	1338	1365	1392	1417	1445	1471
Residential	674	683	694	712	732	750	770	790	808	827	845	864	887	910	933	955	978	1001	1024	1047	1070	1093	1115	1139	1161
Non-Residential	228	229	232	235	238	241	244	247	251	253	256	259	263	268	271	276	280	284	287	291	295	299	303	306	310
User Charges	783	792	803	823	844	862	883	903	923	942	961	981	1005	1029	1053	1077	1100	1125	1148	1172	1197	1220	1244	1267	1292
Sales of Water : Residential	627	635	644	662	681	697	716	733	751	768	785	803	824	846	867	888	909	931	951	972	994	1015	1036	1058	1079
Sales of Water : Non-Residential	156	157	159	161	163	165	168	170	172	174	176	181	184	186	189	191	194	197	200	203	205	207	210	213	213
Extra Charges	13	14	13	14	14	14	14	14	14	15	15	15	15	15	15	16	16	17	17	17	17	17	18	18	18
Interest Income	188	200	157	125	118	124	131	129	138	153	167	182	201	226	250	274	261	251	199	216	233	253	266	281	295
Other Revenues	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Grants	96	201	2594	2575	3284	6	6	3322	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	5	4
Grants for Acquisition of Assets	90	195	2589	2569	3278	0	0	3317	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pensioner Rebate Subsidy	6	6	6	6	6	6	6	6	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	4	
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	
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	
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	
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	
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	
TOTAL REVENUES	2057	2194	4567	4558	5304	2072	2123	5480	2214	2270	2325	2381	2451	2528	2602	2678	2715	2758	2755	2822	2891	2962	3024	3090	3155
OPERATING RESULT	783	995	3217	3198	3778	594	533	3909	497	626	576	708	649	803	743	900	800	924	740	886	806	973	883	1044	953
OPERATING RESULT (less Grants for Acq of Assets)	693	800	628	630	499	594	533	592	497	626	576	708	649	803	743	900	800	924	740	886	806	973	883	1044	953

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Cashflow Statement

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48	
Cashflow From Operating Activities																										
Receipts																										
Rates and Charges	1698	1718	1741	1783	1827	1867	1912	1954	1996	2037	2077	2119	2170	2223	2273	2324	2374	2426	2476	2527	2579	2629	2679	2730	2780	
Interest Income	188	200	157	125	118	124	131	129	138	153	167	182	201	226	250	274	261	251	199	216	233	253	266	281	295	
Other Revenues	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
Grants	96	201	2594	2575	3284	6	6	3322	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4
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	2057	2194	4567	4558	5304	2072	2123	5480	2214	2270	2325	2381	2451	2528	2602	2678	2715	2758	2755	2822	2891	2962	3024	3090	3155	
Payments																										
Management	352	274	362	285	379	298	395	311	412	323	428	336	446	351	466	366	485	381	505	396	525	412	544	427	564	
Operations (plus WC Inc)	557	563	575	628	653	690	707	721	768	783	799	813	833	850	869	886	904	922	939	970	988	1005	1024	1043	1060	
Interest Expenses	32	26	21	15	10	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other Expenses	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	
Total Payments from Operations	995	919	1014	985	1101	1054	1167	1095	1242	1169	1291	1214	1345	1269	1402	1321	1459	1374	1516	1439	1587	1492	1644	1547	1702	
Net Cash from Operations	1062	1275	3553	3573	4204	1018	957	4385	972	1101	1034	1166	1105	1260	1200	1357	1256	1384	1239	1384	1304	1470	1380	1543	1452	
Cashflow from Capital Activities																										
Receipts																										
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	
Payments																										
Acquisition of Assets	645	759	5091	2954	4551	94	900	4086	400	400	400	400	400	137	0	0	0	1350	1040	2737	0	130	49	185	171	0
Net Cash from Capital Activities	-645	-759	-5091	-2954	-4551	-94	-900	-4086	-400	-400	-400	-400	-137	0	0	0	-1350	-1040	-2737	0	-130	-49	-185	-171	0	
CashFlow from Financing Activities																										
Receipts																										
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	
Payments																										
Principal Loan Payments	79	80	82	84	68	37	37	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Net Cash from Financing Activities	-79	-80	-82	-84	-68	-37	-37	-38	0	0	0	0	0	0	0	0										
TOTAL NET CASH	338	436	-1621	536	-415	887	20	262	572	701	634	766	968	1260	1200	1357	-94	343	-1498	1384	1173	1421	1195	1372	1452	
Current Year Cash	338	435	-1620	536	-415	887	20	262	572	701	634	766	968	1260	1200	1357	-94	343	-1498	1384	1173	1421	1195	1372	1452	
Cash & Investments @Year Start	3670	3872	4162	2456	2891	2392	3168	3080	3228	3672	4225	4695	5277	6034	7047	7968	9009	8614	8654	6914	8017	8880	9953	10771	11732	
Cash & Investments @Year End	4008	4307	2542	2992	2476	3279	3187	3341	3800	4373	4860	5462	6245	7294	8247	9325	8915	8957	7156	8298	9190	10301	11148	12143	13184	
Capital Works Fundina:																										
Internal Funding for New Works (\$'000)	170	15	1453	285	364	0	0	369	0	0	0	0	0	0	0	0	0	240	2737	0	0	0	0	171	0	
Internal Funding for Renewals	385	550	1049	100	908	94	900	400	400	400	400	400	137	0	0	0	1350	800	0	0	130	49	185	0	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	90	195	2589	2569	3278	0	0	3317	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Capital Works	645	760	5090	2954	4551	94	900	4086	400	400	400	400	137	0	0	0	1350	1040	2737	0	130	49	185	171	0	

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Statement of Financial Position

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48
Cash and Investments	4008	4162	2373	2699	2158	2761	2593	2626	2886	3209	3445	3741	4133	4664	5095	5566	5141	4991	3853	4316	4619	5002	5230	5504	5774
Receivables	330	334	341	348	356	364	372	380	387	395	403	410	420	429	438	447	456	465	474	484	493	502	511	521	530
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	11316	11776	16511	19070	23175	22826	23282	26875	26782	26689	26614	26540	26201	25726	25251	24775	25650	26211	28431	27913	27526	27056	26724	26375	25854
System Assets (1)	11117	11605	16366	18950	23078	22751	23228	26839	26765	26689	26614	26540	26201	25726	25251	24775	25650	26211	28431	27913	27526	27056	26724	26375	25854
Plant & Equipment	199	171	145	120	97	75	55	35	17	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	15654	16272	19225	22117	25688	25950	26247	29880	30055	30293	30462	30691	30754	30819	30783	30788	31247	31668	32758	32713	32637	32560	32465	32400	32158
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	70	71	72	74	76	77	79	81	83	84	86	88	89	91	93	96	97	99	101	103	105	107	109	111	113
Borrowings	480	384	288	195	120	79	39	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	550	454	360	269	196	157	118	81	83	84	86	88	89	91	93	96	97	99	101	103	105	107	109	111	113
NET ASSETS COMMITTED	15104	15818	18864	21848	25492	25794	26129	29799	29972	30208	30376	30603	30664	30727	30690	30693	31150	31568	32656	32610	32532	32454	32356	32289	32045
EQUITY																									
Accumulated Operating Result	7596	8334	11269	14087	17388	17393	17338	20661	20459	20393	20279	20302	20264	20382	20436	20645	20746	20969	21000	21177	21267	21520	21675	21986	22195
Asset Revaluation Reserve	7508	7897	8317	8930	9665	10592	11537	12537	13732	14965	16238	17552	18908	20293	21701	23131	24583	26140	27787	29635	31513	33430	35381	37375	39411
TOTAL EQUITY	15104	15964	19033	22141	25810	26312	26723	30515	30887	31373	31791	32324	32777	33357	33842	34451	34924	35535	35960	36591	37104	37753	38274	38928	39456
(1) Notes to System Assets																									
Current Replacement Cost	19837	20046	24088	26942	30584	30584	30584	34269	34269	34269	34269	34269	34269	34269	34269	34269	34268	34509	37246	37246	37246	37246	37246	37417	37417
Less: Accumulated Depreciation	8720	8442	7722	7992	7506	7833	7356	7430	7505	7579	7655	7730	8068	8543	9018	9494	8619	8297	8815	9333	9720	10189	10522	11042	11563
Written Down Current Cost	11117	11605	16366	18950	23078	22751	23228	26839	26765	26689	26614	26540	26201	25726	25251	24775	25650	26211	28431	27913	27526	27056	26724	26375	25854

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Performance Indicators

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48	
Typical Residential Bills	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785	
Average Residential Bills (2023/24\$)	730	731	727	729	731	731	733	734	735	737	737	738	739	741	742	743	743	744	744	746	746	747	747	748	748	750
Mgmt Cost / Assessment (2023/24\$)	170	130	170	131	170	131	169	130	170	131	169	131	169	130	170	131	170	130	170	131	170	131	169	131	169	
OMA Cost per Assessment (2023/24\$)	419	380	418	397	441	412	451	412	465	426	464	425	465	425	464	424	464	424	463	428	467	427	466	427	466	
Operating Sales Margin (%)	30.19	34.80	27.01	27.87	20.55	24.46	20.38	22.84	17.26	22.32	18.96	23.95	19.91	25.08	20.98	26.05	21.97	26.86	21.17	25.72	21.57	26.56	22.38	27.17	22.99	
Economic Real Rate of Return (%)	4.75	5.32	2.98	2.72	1.69	2.09	1.74	1.73	1.34	1.77	1.54	1.98	1.71	2.24	1.95	2.53	2.10	2.57	1.90	2.40	2.08	2.66	2.31	2.89	2.54	
Debt Service Ratio	0.06	0.05	0.05	0.05	0.04	0.02	0.02	0.02	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	0.03	0.02	0.02	0.01	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	22.66	31.67	31.59	42.06	48.75	89.13	132.00	377.50	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 (%)	4.63	5.12	4.27	4.05	3.63	2.31	2.05	4.36	1.65	2.07	1.89	2.31	2.11	2.61	2.41	2.92	2.56	2.92	2.26	2.71	2.47	2.99	2.72	3.22	2.96	
Cash and Investments (2023/24\$'000)	4008	4308	2542	2992	2476	3279	3187	3341	3800	4373	4860	5462	6245	7294	8247	9325	8915	8957	7156	8298	9190	10301	11148	12143	13184	
Debt outstanding (2023/24\$'000)	480	384	288	195	120	79	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Net Debt (2023/24\$'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	

Balranald SC Water Fund Financial Model 2024 : IWCM Water - Preferred

Summary Report of Assumptions and Results

FINMOD
DEPARTMENT OF
COMMERCE

	2023/24	2027/28	2032/33	2037/38	2042/43	2047/48	2052/53
Inflation Rates - General (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Inflation Rates - Capital Works (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Borrowing Interest Rate (%)	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Term of New Loans (years)	20	20	20	20	20	20	20
Investment Interest Rate (%)	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Growth Rate - Residential (%)	1.25	2.49	2.17	2.36	2.11	1.91	1.08
Developer Charges per Assessment - Residential (2023/24 \$)	1000	1000	1000	1000	1000	1000	1000
Subsidised Scheme Capital Works (\$m)	0.26	3.28	0.00	0.00	0.00	0.00	0.00
Grants on Acquisition of Assets (\$m)	0.09	3.28	0.00	0.00	0.00	0.00	0.00
Renewals (\$m)	0.39	0.91	0.40	0.00	0.00	0.00	0.00
Renewals (%)	1.94	2.97	1.17	0.00	0.00	0.00	0.00
Cash and Investments (\$m)	4.01	2.16	3.21	5.09	4.32	5.77	6.63
Borrowing Outstanding (\$m)	0.48	0.12	0.00	0.00	0.00	0.00	0.00
Mgmt Cost / Assessment	170	170	131	170	131	169	131
Debt Equity Ratio	0.03	0.00	0.00	0.00	0.00	0.00	0.00
OMA Cost Per Assessment	419	441	426	464	428	466	431
Economic Real Rate of Return (%)	4.75	1.69	1.77	1.95	2.40	2.54	3.57
Return on Capital (%)	4.63	3.63	2.07	2.41	2.71	2.96	3.85
Net Debt (\$m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt Service Ratio	0.06	0.04	0.00	0.00	0.00	0.00	0.00
Average Residential Bills	730	731	737	742	746	750	753
Typical Residential Bills (2023/24\$)	785	785	785	785	785	785	785

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

Operating Statement

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48
EXPENSES																									
Management Expenses	337	279	284	355	297	304	378	317	323	402	335	342	427	358	365	455	381	389	484	405	412	513	428	436	542
Administration	337	279	284	355	297	304	378	317	323	402	335	342	427	358	365	455	381	389	484	405	412	513	428	436	542
Engineering and Supervision	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
Operation and Maintenance Expenses	136	137	147	149	148	150	150	152	153	155	156	158	158	160	162	164	165	186	187	190	192	194	196	199	201
Operation Expenses	0	0	8	9	9	9	9	9	9	10	10	10	10	10	11	11	11	30	30	31	32	32	33	34	34
Maintenance Expenses	113	114	115	116	117	118	119	120	121	122	123	124	125	127	128	130	131	133	134	136	137	139	140	142	143
Energy Costs	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Chemical Costs	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	208	235	234	234	233	232	231	230	229	229	213	213	213	213	213	213	212	213	262	262	262	262	262	262	262
System Assets	186	214	215	215	214	214	214	214	214	214	213	213	213	213	213	213	213	212	262	262	262	262	262	262	262
Plant & Equipment	22	20	20	19	18	18	17	17	16	15	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	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
TOTAL EXPENSES	684	654	667	740	681	689	763	702	708	789	708	715	801	735	743	834	762	840	937	860	870	972	888	900	1008
REVENUES																									
Rates & Service Availability Charges	810	817	823	832	838	849	854	863	870	880	887	897	905	917	925	937	946	958	967	979	987	998	1008	1019	1028
Residential	539	544	551	558	566	575	582	589	598	605	614	622	630	640	649	658	667	678	686	696	705	713	723	732	741
Non-Residential	271	273	273	274	273	274	272	274	273	274	275	275	275	277	277	279	279	281	280	283	282	285	285	287	287
Trade Waste Charges	11	11	11	11	11	11	11	12	12	12	12	12	13	13	13	13	13	13	14	14	14	14	14	15	14
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	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27	27	27	27	27	27	27	27	28	28
Interest Income	88	84	80	89	104	119	130	143	144	136	142	154	161	168	175	178	183	179	178	183	187	185	184	186	186
Other Revenues	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Grants	6	1887	6	5	5	6	6	6	5	5	5	5	5	4	4	4	4	3304	4	4	4	4	4	4	4
Grants for Acquisition of Assets	0	1881	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	6	6	6	5	5	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
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	974	2858	979	998	1018	1043	1060	1082	1090	1092	1105	1125	1142	1161	1176	1191	1204	4513	1220	1237	1251	1259	1268	1282	1291
OPERATING RESULT	290	2204	312	257	337	354	297	380	382	303	398	410	340	426	434	356	442	3674	284	377	381	287	380	382	283
OPERATING RESULT (less Grants for Acq of Assets)	290	323	312	257	337	354	297	380	382	303	398	410	340	426	434	356	442	374	284	377	381	287	380	382	283

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

Cashflow Statement

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48	
Cashflow From Operating Activities																										
Receipts																										
Rates and Charges	847	854	861	869	876	886	892	901	908	918	925	935	944	957	965	977	986	999	1007	1020	1028	1040	1049	1062	1070	
Interest Income	88	84	80	89	104	119	130	143	144	136	142	154	161	168	175	178	183	179	178	183	187	185	184	186	186	
Other Revenues	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Grants	6	1887	6	5	5	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4
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	0
Total Receipts from Operations	974	2858	979	998	1018	1043	1061	1082	1091	1093	1106	1127	1143	1162	1177	1192	1205	4514	1222	1239	1252	1261	1270	1284	1293	
Payments																										
Management	337	279	284	355	297	304	378	317	323	402	335	342	427	358	365	455	381	389	484	405	412	513	428	436	542	
Operations (plus WC Inc)	139	140	149	152	151	153	154	155	156	158	160	161	161	164	166	168	168	190	191	194	197	198	200	203	205	
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	0
Other Expenses	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Total Payments from Operations	479	422	436	510	451	461	535	475	481	563	498	505	592	526	534	626	552	582	678	602	612	713	631	642	750	
Net Cash from Operations	495	2436	543	488	567	583	526	608	609	530	608	621	551	636	644	566	653	3933	544	637	641	548	639	642	543	
Cashflow from Capital Activities																										
Receipts																										
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	0
Payments																										
Acquisition of Assets	307	2668	263	149	0	111	70	0	537	500	0	37	50	111	37	134	79	3666	169	0	0	175	159	50	0	
Net Cash from Capital Activities	-307	-2668	-263	-149	0	-111	-70	0	-537	-500	0	-37	-50	-111	-37	-134	-79	-3666	-169	0	0	-175	-159	-50	0	
CashFlow from Financing Activities																										
Receipts																										
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	0
Payments																										
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	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		
TOTAL NET CASH	188	-232	280	339	567	472	456	608	72	30	608	584	501	525	607	433	574	266	375	637	641	373	480	592	543	
Current Year Cash																										
Cash & Investments @Year Start	188	-232	280	339	567	472	456	608	72	30	608	584	501	525	607	433	574	266	375	637	641	373	480	592	543	
Cash & Investments @Year End	1715	1839	1552	1771	2038	2517	2888	3230	3708	3653	3558	4025	4454	4787	5133	5545	5776	6135	6185	6338	6738	7130	7249	7468	7788	
Capital Works Funding:																										
Internal Funding for New Works (\$'000)	0	209	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	367	0	0	0	0	0	0	0	0
Internal Funding for Renewals	307	578	263	149	0	111	70	0	537	500	0	37	50	111	37	134	79	0	169	0	0	175	159	50	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	1881	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3299	0	0	0	0	0	0	0
Total Capital Works	307	2668	263	149	0	111	70	0	537	500	0	37	50	111	37	134	79	3666	169	0	0	175	159	50	0	

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

Statement of Financial Position

FINMOD
DEPARTMENT OF
COMMERCE

	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	2046/47	2047/48
Cash and Investments	1902	1603	1828	2102	2592	2965	3309	3792	3719	3603	4067	4491	4812	5146	5546	5760	6104	6126	6254	6637	7009	7100	7292	7588	7822
Receivables	81	81	82	83	84	85	86	87	88	89	90	91	92	93	95	96	96	98	99	100	101	102	103	104	106
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	10694	13120	13144	13054	12817	12694	12530	12298	12604	12874	12661	12485	12322	12220	12044	11965	11831	15236	15142	14880	14618	14530	14427	14215	13953
System Assets (1)	10505	12957	13007	12940	12726	12623	12478	12265	12588	12874	12661	12485	12322	12220	12044	11965	11831	15236	15142	14880	14618	14530	14427	14215	13953
Plant & Equipment	189	162	137	114	92	71	51	33	16	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	12677	14804	15054	15239	15492	15744	15925	16176	16411	16566	16818	17066	17226	17460	17685	17821	18031	21459	21495	21617	21727	21732	21822	21907	21881
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	12	12	12	13	13	13	14	14	14	15	15	15	15	15	15	16	16	16	16	16	16	16	16	15	16
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	12	12	12	13	13	13	14	14	14	15	15	15	15	15	15	16	15	16							
NET ASSETS COMMITTED	12665	14792	15042	15227	15479	15731	15911	16162	16396	16552	16803	17051	17211	17444	17670	17805	18016	21443	21480	21601	21712	21716	21807	21891	21865
EQUITY																									
Accumulated Operating Result	4368	6424	6519	6555	6671	6800	6867	7015	7160	7221	7374	7535	7620	7789	7960	8047	8216	11612	11503	11491	11484	11383	11378	11375	11274
Asset Revaluation Reserve	8298	8372	8528	8678	8822	8954	9078	9193	9297	9408	9525	9631	9728	9815	9896	9969	10036	10097	10270	10435	10585	10721	10850	10971	11080
TOTAL EQUITY	12666	14796	15046	15234	15493	15754	15945	16208	16456	16629	16899	17166	17348	17605	17856	18015	18252	21709	21773	21926	22069	22104	22228	22346	22354
(1) Notes to System Assets																									
Current Replacement Cost	14325	16414	16415	16414	16414	16414	16414	16414	16414	16414	16414	16413	16414	16414	16413	16413	16413	20079	20079	20079	20079	20079	20079	20079	20079
Less: Accumulated Depreciation	3820	3457	3408	3474	3689	3791	3936	4149	3826	3540	3753	3929	4092	4193	4369	4448	4582	4844	4937	5199	5461	5549	5651	5864	6126
Written Down Current Cost	10505	12957	13007	12940	12726	12623	12478	12265	12588	12874	12661	12485	12322	12220	12044	11965	11831	15236	15142	14880	14618	14530	14427	14215	13953

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

FINMOD
DEPARTMENT OF
COMMERCE

Performance Indicators

	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	2046/47	2047/48	
Typical Residential Bills	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	698	
Average Residential Bills (2023/24\$)	658	660	661	661	661	664	664	664	664	665	666	667	666	668	668	668	669	669	671	671	672	672	672	673	673	674
Mgmt Cost / Assessment (2023/24\$)	342	282	284	352	291	294	362	299	302	372	308	310	383	317	319	393	326	329	404	334	337	414	342	344	424	
OMA Cost per Assessment (2023/24\$)	481	420	430	499	436	439	506	443	445	516	450	453	524	459	461	535	467	486	561	492	494	571	498	502	581	
Operating Sales Margin (%)	22.80	26.73	25.75	18.47	25.55	25.50	17.94	25.27	25.14	17.43	26.51	26.38	18.23	26.06	25.80	17.62	25.37	18.85	10.17	18.44	18.23	9.58	18.09	17.90	8.80	
Economic Real Rate of Return (%)	1.89	1.82	1.76	1.29	1.82	1.86	1.33	1.93	1.89	1.29	2.02	2.05	1.45	2.12	2.14	1.49	2.19	1.28	0.70	1.31	1.33	0.71	1.36	1.38	0.70	
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		
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		
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		
Return on capital (%)	2.29	2.61	2.07	1.69	2.18	2.25	1.86	2.35	2.33	1.83	2.36	2.40	1.97	2.44	2.45	2.00	2.45	8.55	1.32	1.74	1.75	1.32	1.74	1.74	1.30	
Cash and Investments (2023/24\$'000)	1903	1607	1832	2110	2606	2989	3343	3838	3780	3683	4166	4610	4955	5312	5739	5978	6350	6401	6559	6974	7379	7503	7729	8060	8331	
Debt outstanding (2023/24\$'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 (2023/24\$'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	

Balranald Sc Sewer Fund Financial Model 2024 : IWCM Sewer - Preferred

Summary Report of Assumptions and Results

FINMOD
DEPARTMENT OF
COMMERCE

	2023/24	2027/28	2032/33	2037/38	2042/43	2047/48	2052/53
Inflation Rates - General (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Inflation Rates - Capital Works (%)	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Borrowing Interest Rate (%)	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Term of New Loans (years)	20	20	20	20	20	20	20
Investment Interest Rate (%)	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Growth Rate - Residential (%)	0.61	1.30	1.22	1.36	1.27	1.19	1.40
Developer Charges per Assessment - Residential (2023/24 \$)	1000	1000	1000	1000	1000	1000	1000
Subsidised Scheme Capital Works (\$m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grants on Acquisition of Assets (\$m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Renewals (\$m)	0.31	0.00	0.50	0.04	0.00	0.00	0.00
Renewals (%)	2.14	0.00	3.04	0.23	0.00	0.00	0.00
Cash and Investments (\$m)	1.90	2.59	3.60	5.55	6.64	7.82	7.97
Borrowing Outstanding (\$m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mgmt Cost / Assessment	342	291	372	319	334	424	354
Debt Equity Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OMA Cost Per Assessment	481	436	516	461	492	581	510
Economic Real Rate of Return (%)	1.89	1.82	1.29	2.14	1.31	0.70	1.47
Return on Capital (%)	2.29	2.18	1.83	2.45	1.74	1.30	1.68
Net Debt (\$m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt Service Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Residential Bills	658	661	665	668	672	674	676
Typical Residential Bills	698	698	698	698	698	698	698