

Community Wastewater Management Schemes Asset Management Plan

Draft 2022/23 Annual Review – Public Consultation

Background

The District Council of Tumby Bay Community Wastewater Management Schemes Infrastructure Asset Management Plan was adopted by Council on 27th February 2020. A minor review was undertaken in March 2022, and this represents the third minor review of the adopted plan. This annual review is limited to reviewing forward expenditure projections to identify significant changes or variations to the adopted plan that require consideration in the review of the Council's Long Term Financial Plan.

Operation and Maintenance Expenditure

General scheme operating and maintenance costs will continue to be indexed by CPI and this is currently deemed adequate. Costs associated with the operation of the upgraded treatment plant will be better known towards the end of the 22/23 financial year and will be further reviewed throughout the budget formulation process.

Planned expenditure is compared against actual/budget expenditure in Table 1.

Year	Planned Expenditure	Actual/Budgeted Expenditure	Comment
2019/20	\$418,600	\$395,400	
2020/21	\$394,800	\$357,700	
2021/22	\$403,700	\$407,200	
2022/23	\$412,700	\$417,200	
TOTAL	\$1,629,800	\$1,577,500	

Table 1 Planned vs actual/budget operations and maintenance expenditure. Note: Planned expenditure figures adjusted for inflation based on CPI adjustment (All Groups – Adelaide) adopted in LTFP reviews.

Capital Renewal Expenditure

A review of planned capital renewal expenditure for the first four years of the plan is summarised in Table 2.

Year	Planned Expenditure	Actual/Budgeted Expenditure	Comment
2019/20	\$42,900	\$22,400	Planned pump renewals not required as assets remain serviceable. Unplanned renewal of balance tank due to liner failure.
2020/21	\$0	\$0	
2021/22	\$0	\$0	
2022/23	\$5,100	\$0	Planned Pump renewals not required as assets remain serviceable
TOTAL	\$48,000	\$22,400	

Table 2 Planned vs actual/budget renewal expenditure. Note: Planned expenditure figures adjusted for inflation based on CPI adjustment (All Groups – Adelaide) adopted in LTFP reviews.

Planned renewals of mechanical components such as pumps, and valves are not undertaken unless the asset reaches end of serviceable life. Where actual asset lives are greater than the assumptions made in renewal planning, any unspent allocations are held in reserve until required. Assigned asset lives are reviewed periodically with asset re-valuations to identify trends that may require an adjustment of asset useful life assumptions.

New/Upgrade Expenditure

No new/upgrade expenditure was planned for the first four years of the plan.

The only planned upgrade expenditure in the life of the plan was the upgrade to the Tumby Bay Wastewater Treatment Plant hydraulic capacity, with a projected figure of \$1,500,000 in 2027/28. Ongoing township growth, coupled with a particularly busy peak tourist visitation period across December 2020 and January 2021 demonstrated the need for this upgrade was more urgent than was originally planned.

The planned upgrade was brought forward, with \$140,000 committed to design and approvals in 2020/21 and an allocation of \$1,160,000 made in 2021/22 for construction. This project was completed and commissioned in the second half of 2021.

Summary

This review shows that the District Council of Tumby Bay Community Wastewater Management Schemes operations, maintenance, and renewal works are meeting the objectives of the Asset Management Plan.

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Deputy CEO
January 2023

Infrastructure Asset Management Plan

Community Wastewater Management Systems (CWMS)

District Council of Tumby Bay

27 February 2020

Ref: 20190638R005RevC



Document History and Status

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A	Draft for Client Comment	KJS	RKE	RKE	14 November 2019
B	For Public Consultation	KJS	RKE	RKE	12 December 2019
C	Adopted 27/2/2020 – Motion Number 1sp/22020	KJS	RKE	RKE	27 February 2020

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Project: Infrastructure Asset Management Plan | Community Wastewater Management Systems (CWMS)
Client: District Council of Tumby Bay
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1 Introduction

1.1 Background

The District Council of Tumby Bay is situated to the north of Port Lincoln on the east coast of the Eyre Peninsula, is approximately 630km from Adelaide and covers an area of 261,950 hectares. The townships of Tumby Bay and Port Neill are located 45km and 85km north of Port Lincoln respectively. Tumby Bay has an approximate population of 1,400 and Port Neill has an approximate population of 150. Both towns have increased populations during the summer months.

Tumby Bay is the major centre of the Council area, Port Neill a small coastal town 40km north east of Tumby Bay, Ungarra a small agricultural based town located 28km north west of Tumby Bay and Lipson a small historic farming town located 12km north west of Tumby Bay.

Council provides Community Wastewater Management Systems (CWMS) to residential and commercial properties in the townships of Tumby Bay and Port Neill.

In Tumby Bay, the wastewater is collected through a pipe network with inspection points and nineteen pump stations. It is then treated at a wastewater treatment plant and then reused to irrigate several open space areas via subsurface irrigation assets. A storage lagoon situated to the north of town is also used to store treated wastewater prior to reuse by irrigation.

In Port Neill, the wastewater is also collected through a pipe network and two pumping stations that pump the wastewater to a lagoon situated to the north of town. Wastewater is pumped from the lagoon through a small filtration plant and to the Oval for reuse by subsurface irrigation.

An overview of the CMWS infrastructure assets covered by this asset management plan are shown in Table 1 and Figure 1.

Table 1 Assets covered by this plan

Asset Category	Dimension	Replacement Value
<i>Tumby Bay</i>		
Gravity Pipes	22,750m	\$4,018,111
Gravity Nodes	1,259 items	
Rising Mains	10,988m	\$1,219,218
Pump Station Assets (19)	97 items	\$1,828,287
Lagoon	2 lagoons	\$1,442,286
Wastewater Treatment Assets	6 tanks, 26 items	
Irrigation Pipes/Driplines	53,521m	\$1,536,200
Irrigation Items	639 items, 6km cabling, 1.5km hydraulic tubing	
Tumby Bay Total		\$10,134,103

Asset Category	Dimension	Replacement Value
Port Neill		
Gravity Pipes	8,276m	\$1,623,816
Gravity Nodes	372 items	
Rising Mains	2,278m	\$116,546
Pump Station Assets (2)	11 items	\$261,488
Lagoon	1 lagoon	\$408,204
Filtration Plant Assets	16 items	
Irrigation Pipes/Driplines	45,900m	\$380,445
Irrigation Items	64 items, 4.2km cabling	
Port Neill Total		\$2,790,498
Tumby Bay and Port Neill CWMS Current Replacement Cost		\$12,924,601

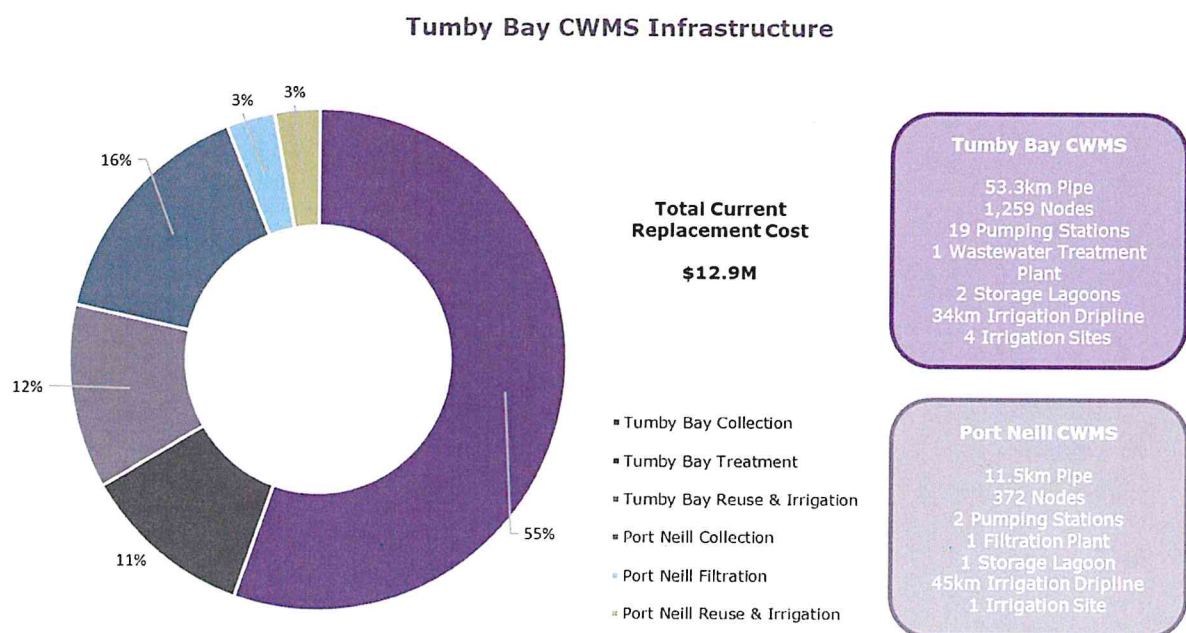


Figure 1 Distribution of CWMS Assets by Replacement Value as at 2019

1.2 Plan Framework

This CWMS infrastructure asset management plan is based on the fundamental structure of the IPWEA NAMS 3 Asset Management for Small, Rural or Remote Communities template and has been simplified to minimise the content to suit The District Council of Tumby Bay.

The District Council of Tumby Bay provides services for the community in part through the provision of infrastructure assets. Council have acquired these assets directly through construction by council staff or contractors and by donation of assets constructed by developers and others over time.

The goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Taking a life cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Managing risks associated with asset failures.
- Sustainable use of physical resources.

Key elements of the plan are:

- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand - how this will impact on future service delivery and how this is to be met.
- Life cycle management – how the organisation will manage its existing and future assets to provide the required services.
- Financial summary – what funds are required to provide the required services.
- Plan improvement and monitoring – how the plan will be monitored to ensure it is meeting the organisation's objectives.

This asset management plan is prepared under the direction of Council's Vision and Strategic Themes as described in the Strategic Plan 2020 – 2030.

Council's vision is:

"We are a district of vibrant, engaged communities. Our residents, businesses and visitors enjoy a relaxed lifestyle that our seaside and rural location affords, a pristine natural environment and a regional centre that is not compromised in character or services."

2 Levels of Service

The community generally expect that Council will provide an effective method for collection and disposal of wastewater which meets the required Australian and State legislative regulations applicable to CWMS assets. Council has defined service levels in two terms and provides the level of service objective, performance measure process and service target in Table 2 and Table 3.

Community Levels of Service relate to the service outcomes that the community wants in terms of reliability, responsiveness, amenity, safety and financing.

Table 2 Community Levels of Service

Key Performance Measure	Level of Service Objective	Performance Measure Process	Service Target
Reliability	Minimise interruption to service provision.	Reported service interruptions due to CWMS infrastructure failure.	<5 per year
	Collection system operation without blockage.	Reported or identified blockages.	<5 per year
	Maintenance of service during power outage.	Manage system in accordance with contingency plan to minimise and manage overflow.	Activation of contingency plan as required.
Responsiveness	Response to blockages and alarms within set timeframe.	Response to critical alarms and complaints.	Within 1 hour
Amenity	Maintain visual amenity of CWMS infrastructure.	Maintain equipment and land clear from weeds and debris.	Weed spraying of CWMS sites in conjunction with footpath spraying program.
	Control odour generation from pump stations, treatment plants and storage lagoons.	Reported odour complaints.	<5 per year
Safety	Ensure public safety around high risk system components including pump stations, manholes, treatment plant and storage lagoons.	All lockable infrastructure secured from public access.	No unauthorised access to CWMS infrastructure.
	Manage public access to sites irrigated with reclaimed water.	Irrigation operation in conformance with	Minimise risk to public health from public area irrigation.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Service Target
		Irrigation Management Plan.	
Financing	Ensure annual services charges meet requirements for compliant operations of scheme and planned asset renewals. Annual budget reporting in line with Council financial processes.	Adequate recording and reporting on costs and charges.	Charges cover operations, maintenance and renewal.

Technical Levels of Service support the community service levels and are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the council undertakes to best achieve the desired community outcomes.

Table 3 Technical Levels of Service

Key Performance Measure	Level of Service Objective	Performance Measure Process	Service Target
Quality	Treated effluent to comply with license conditions. Infrastructure compliant with current SA Health and EPA standards.	Quarterly sampling and testing by NATA accredited laboratory. Infrastructure compliant or plans for upgrade to meet compliant levels.	Within SA Health requirements for water quality.
Reliability	Ongoing operation of pump stations and treatment plant. Availability of treated effluent for irrigation.	System outage frequency and duration due to CWMS infrastructure failure. Acceptable quantity and quality of water to meet irrigation requirements.	<48 hours treatment plant downtime per annum. 90% of foreshore and town oval irrigation requirements met through reclaimed water.
Maintenance	System maintenance in accordance with component manufacturers' recommendations and Council Operations and Maintenance Plan.	Reporting	Records maintained of all system maintenance.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Service Target
Renewal	Planned asset renewal and upgrade undertaken to maintain system in compliant operational condition.	Asset management plan integrated with Long Term Financial Plan and annual budget process.	Updated plans adopted for budgeting and reviewed annually.
Capacity	Ensure adequate capacity for future growth forecasts.	System planning based on growth forecasts and development planning.	System catchment component plans completed and aligned to growth forecasts and development planning.
Safety	System free of preventable hazards	Assessment of hazardous components and tasks in accordance with Hazard Management Procedure.	No lost time injury associated with CWMS operations.

3 Future Demand

3.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc. Demand factor trends and impacts on service delivery are summarised in Table 4.

Table 4 Demand Factors, Projections and Impact on Services

Demand Driver	Present Position	Projection	Impact on Services
Growth in connections.	Tumby Bay: Recently installed connections through medium sized land division 12 new connections from 2016/2017 to 2017/2018. Port Neill: No significant growth in connections expected during next three years	Tumby Bay: Growth in accordance with historical background growth of approx. 8 allotments per annum.	New developer contributed infrastructure. Downstream impact on existing collection, transfer, treatment and storage infrastructure.
Population growth.	Tumby Bay: Historical background population growth of 0.8% per annum Port Neill: Historical background population growth of 0% per annum. Estimated annual growth of two systems 0.6%	Growth in accordance with historical background growth, noting potential impact of significant regional economic development including mining operations and regional export port.	New developer contributed infrastructure. Downstream impact on existing collection, transfer, treatment and storage infrastructure.
Regulatory change to CWMS standards and guidelines including SCOSA/OTR requirements under Water Industry Act	Tumby Bay and Port Neill: Schemes compliant with current regulatory requirements of ESCOSA, EPA and DHA.	Tumby Bay: Potential change to disinfection requirements may trigger treatment upgrade need. Timeframe, scope and cost currently unknown. Port Neill: No increased treatment or disposal requirements anticipated.	Forecast capital costs and timing included within this plan. Requirements not yet known.

3.2 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Council will determine the ability of the existing schemes to manage increased output for new developments within townships. Developers will be required to provide additional infrastructure for existing schemes and upgrade where necessary to ensure adequate wastewater disposal. Opportunities identified to date for demand management are shown in Table 5. Further opportunities will be developed in future revisions of this asset management plan.

Table 5 Demand Management Plan Summary

Service Activity	Demand Management Plan
Waste Water Collection	<ol style="list-style-type: none"> 1. Capacity assessment of each pump station 2. Evaluation of impact of new allotments on existing infrastructure. 3. Developer contributions per Council policy. 4. Negotiated developer system augmentations where required. 5. Planning to incorporate an average 0.6% per annum growth factor over asset life for Tumby Bay and Port Neill assets. 6. Significant population growth due to regional economic development projects to be assessed and negotiated during development assessment phases. 7. Incorporate in future iterations of the Asset Management Plan as requirements are known.

4 Life Cycle Management

The life cycle management plan details how Council plans to manage and operate the assets at the agreed levels of service (defined in Section 2) while optimising life cycle costs.

4.1 Background Data

The District Council of Tumby Bay's CWMS assets are located in the townships of Tumby Bay and Port Neill and the assets covered by this asset management plan are shown in Table 1.

The age profile of the assets shown by Current Replacement Cost (CRC) included in this plan is shown in Figure 2.

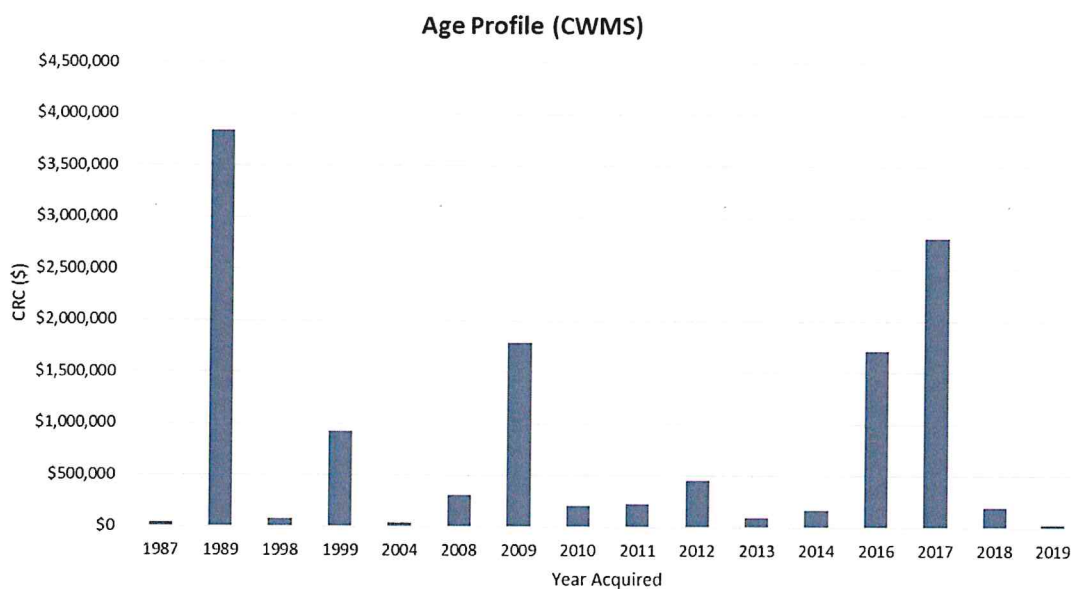


Figure 2 CWMS Asset Age Profile

The Tumby Bay system was first built in 1989 consisting of gravity pipes, rising mains, inspection points and pump stations. New assets were added to the system and the majority of the pumps have been replaced at the pump stations between 2004 and 2017. The wastewater treatment plant was constructed in 2009 along with the addition of new irrigation assets providing reuse options for Council. Capital renewal, upgrade and new additions have continued annually since 2009. A new storage lagoon was constructed to the north of the existing storage lagoon in 2016. While the majority of assets are long life assets there are a number of shorter life pump and wastewater treatment plant assets that while constructed on or after 1989 will feature in the 20 year plan for renewal.

The Port Neill CWMS system was built and commissioned in 2017. The system includes a gravity collection network with two pump stations and rising mains to the storage lagoon. A filtration plant and pump station situated adjacent to the storage lagoon transfers reuse water to the town oval for subsurface irrigation.

4.1.1 Asset Capacity and Performance

Council's services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 6. Council is addressing these known deficiencies.

Table 6 Known Service Performance Deficiencies

Location	Service Deficiency
Stormwater Infiltration	Despite efforts to identify and rectify stormwater intrusion into the CWMS collection system, increased flow is notable during significant rainfall events. Short term flow increases are accommodated within treatment plant design and operation.
Network	In Tumby Bay some of the flushing points have been buried due to local earthworks/roadworks however there are now an adequate number of points available for access. Ongoing exposure of flushing points is being undertaken as required.

4.1.2 Asset Condition

Asset condition information is only available for the pump motors and pump chambers located at the various pump station locations, the remaining life for all other assets is measured from the date of construction. As further information becomes available on the condition of all assets this will be included in this document. Condition will be measured using a 0-100 rating system as detailed in Table 7.

Table 7 Condition Scores

Condition Rating	Description
0	Very Good: <5years old no sign of deterioration
25	Good> 5years old no sign of deterioration
50	Poor > 5yrs signs of deterioration
75	Due for recondition / replacement
100	Immediate recondition / replacement required

An equivalent year of acquisition for condition based assets has been calculated (Expiry - Standard Life) for inclusion in the Age Profile shown in Figure 2.

4.1.3 Asset Valuations

The value of the CWMS assets recorded in the asset register as at 1 July 2019 covered by this asset management plan is shown below. Assets were last revalued at 1 July 2019.

Current Replacement Cost	\$12,924,601
Written Down Value	\$10,241,816
Annual Depreciation Expense	\$241,167

Depreciation expense shown is the 2019/2020 forecast as reported at the 1 July 2019 revaluation.

The current rate of consumption (annual depreciation / current replacement cost) for CWMS assets is 2%. This indicates on average over the life of the asset that 2% of the depreciable amount is consumed annually. The translation of this consumption rate into renewals is subject to a decision on funding, service level determination and condition.

4.2 Risk Management

An assessment of risks associated with service delivery from CWMS infrastructure assets has not been undertaken by Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, assessed as being 'Very High' - requiring immediate corrective action and 'High' - requiring prioritised corrective action will be identified with associated costs in future revisions of the plan.

This plan does not include a full risk assessment, however Council has identified that risks are primarily related to non-compliance (prosecution, public health impact and environmental degradation) and loss of skills as some of the specialist knowledge of the system operations is stored across only a few key people. Future iterations of the plan may consider these in more detail.

CWMS Operations are supported by Risk Management Plans developed to address public and environmental health risks associated with the re-use of treated effluent in public areas.

4.3 Required Expenditure

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agree level of service to the community over a 10 year medium term financial planning period, this provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

4.3.1 Routine Maintenance

Routine maintenance is the regular on-going 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. Maintenance includes reactive (unplanned), planned and specific maintenance work activities. Assessment and prioritisation of reactive maintenance is undertaken by operational staff using experience and judgement.

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock. At Tumby Bay one quarter of the septic tanks are desludged each year whilst at Port Neill all the septic tanks will be desludged every four years. The average annual operation and maintenance cost over the 2019/2020 financial year and the 10 year planning period (medium term) is \$400,509.

Table 8 Projected Operation and Maintenance Expenditure

Financial Year	Operation	Maintenance	Total
2019-20	\$59,800	\$358,800	\$418,600
2020-21	\$60,000	\$327,100	\$387,100
2021-22	\$60,200	\$328,000	\$388,200
2022-23	\$60,300	\$329,000	\$389,300
2023-24	\$60,500	\$362,500	\$423,000
2024-25	\$60,700	\$330,900	\$391,600
2025-26	\$60,900	\$331,900	\$392,800
2026-27	\$61,000	\$332,800	\$393,800
2027-28	\$61,200	\$366,400	\$427,600
2028-29	\$61,400	\$334,800	\$396,200
2029-30	\$61,600	\$335,800	\$397,400
Total	\$667,600	\$3,738,000	\$4,405,600

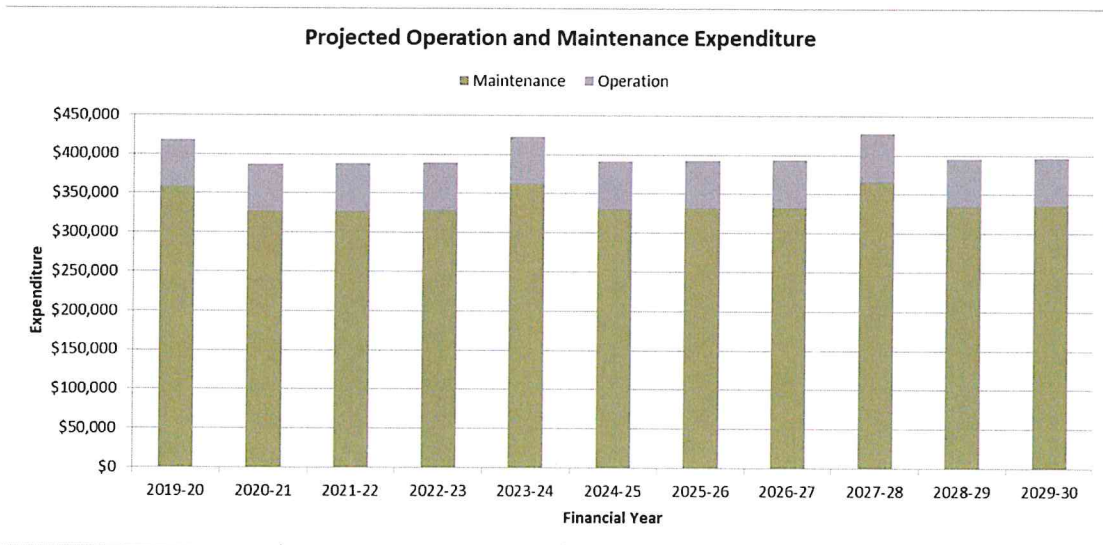


Figure 3 Projected Operations and Maintenance Expenditure

4.3.2 Capital Renewal

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered upgrade expenditure.

The renewal plan is based on the asset register and uses the renewal costs and renewal years for the assets using the acquisition year and useful life of each asset. Approximately \$400K is for pump replacement at the pumping stations and wastewater treatment plants. The remaining \$68K is for valve and instrumentation asset replacement at the treatment and irrigation sites. Actual replacement of assets will depend on the serviceability of these assets.

Longer life collection pipes and pits are not due for replacement during the 10 year planning period. As these assets age Council may plan to implement an inspection program for these assets to assess the condition and plan for renewal as required.

The costs associated with the renewals have been aggregated for each financial year over 2019/2020 and a 10 year planning period (medium term) and shown in Table 9 and Figure 4, the average annual capital renewal cost over the medium term is \$42,568.

Table 9 Required Capital Renewal Expenditure

Financial Year	Capital Renewal Expenditure
2019-20	\$42,930
2020-21	\$0
2021-22	\$0
2022-23	\$4,854
2023-24	\$118,731
2024-25	\$0
2025-26	\$0
2026-27	\$62,664
2027-28	\$0
2028-29	\$233,149
2029-30	\$5,918
Total	\$468,246

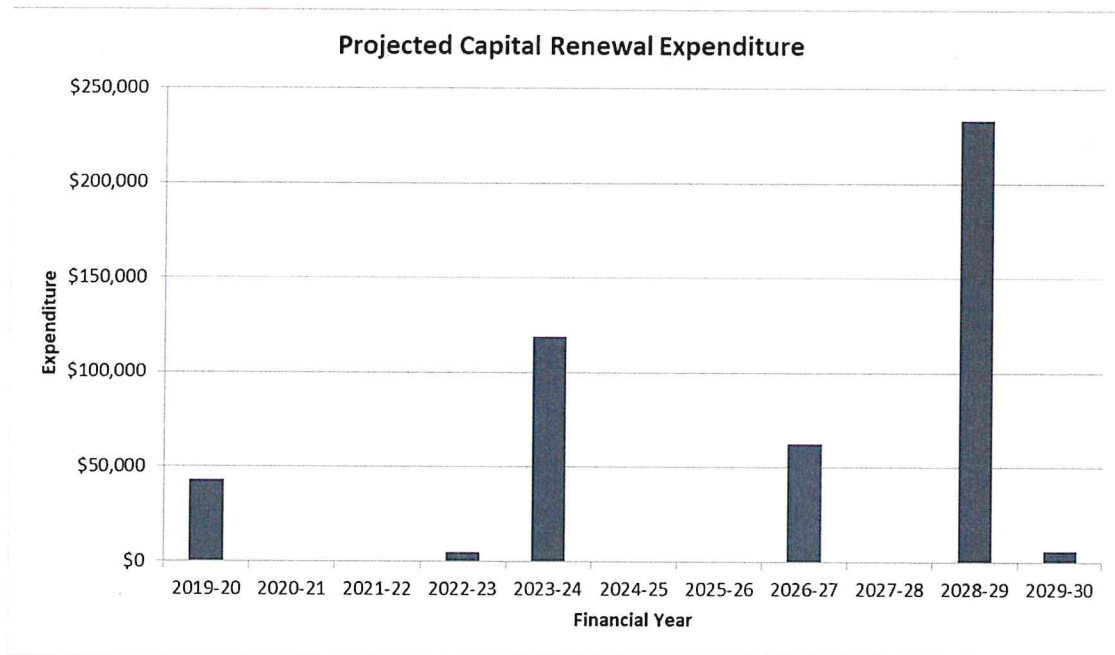


Figure 4 Projected Capital Renewal Expenditure

The Projected capital renewal program is shown in Appendix A.

4.3.3 Capital New/Upgrade and Acquisition

New/upgrade expenditure is major work that creates a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development.

The CWMS system for Port Neill was constructed during 2016 and commissioned in early 2017. There are currently no plans for any upgrade works for the Port Neill CWMS system.

At Tumby Bay, a new CWMS pumping station and associated gravity mains and rising mains were constructed during 2017/2018 to service several existing and approximately 42 future properties.

An allowance of \$1,500,000 for 2027/2028 has been assigned for the installation of a secondary aerator and associated transfer and disinfection upgrades at Tumby Bay Wastewater Treatment Plant. While the need for this upgrade has been identified, timing will be influenced by monitoring of population and wastewater flow changes, regulatory changes and plant performance.

The costs associated with the upgrades have been aggregated for each financial year for 2019/2020 and over a 10 year planning period (medium term) and shown in Table 9 and Figure 4. The average annual capital renewal cost over the medium term is \$136,364.

Table 10 Budgeted New/Upgrade Expenditure

Financial Year	Capital Upgrade Expenditure
2019-20	\$0
2020-21	\$0
2021-22	\$0
2022-23	\$0
2023-24	\$0
2024-25	\$0
2025-26	\$0
2026-27	\$0
2027-28	\$1,500,000
2028-29	\$0
2029-30	\$0
Total	\$1,500,000

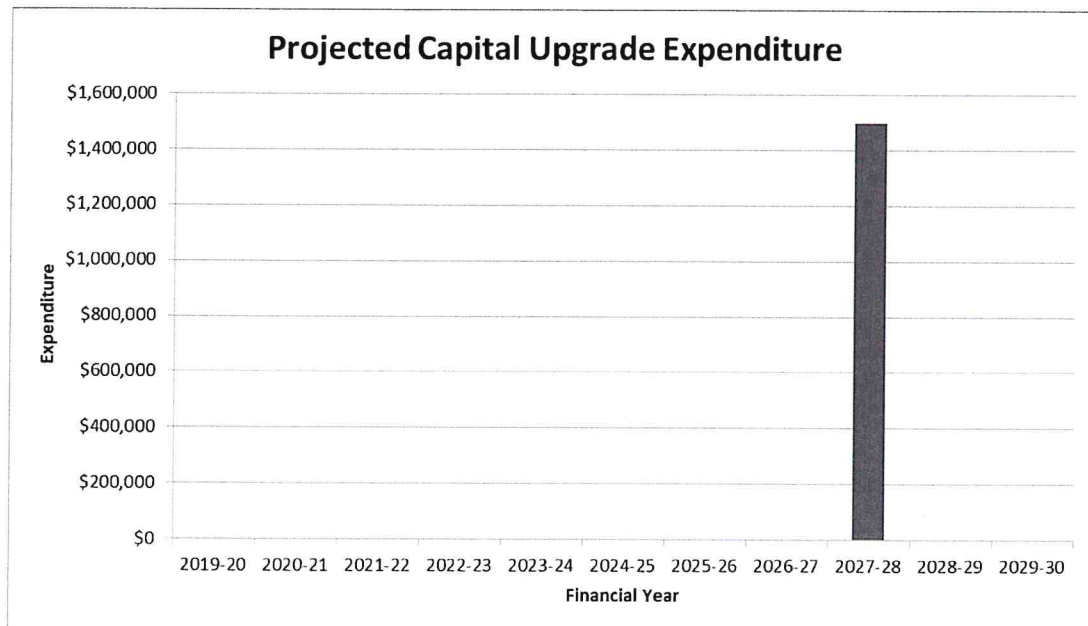


Figure 5 Budgeted New/Upgrade Expenditure

4.3.4 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Council has not identified any CWMS infrastructure assets to be disposed in the 10 year planning period (medium term).

4.3.5 Financial Projections

The financial projections are shown in Table 11 and Figure 6 for projected operating (operation and maintenance), capital renewal, capital upgrade and estimated budget funding.

Table 11 Operating and Capital Expenditure

Financial Year	Operation and Maintenance	Capital Renewal	Capital Upgrade	Estimated Budget Funding
2019-20	\$418,600	\$42,930	\$0	\$461,530
2020-21	\$387,100	\$0	\$0	\$387,100
2021-22	\$388,200	\$0	\$0	\$388,200
2022-23	\$389,300	\$4,854	\$0	\$394,154
2023-24	\$423,000	\$118,731	\$0	\$541,731
2024-25	\$391,600	\$0	\$0	\$391,600
2025-26	\$392,800	\$0	\$0	\$392,800
2026-27	\$393,800	\$62,664	\$0	\$456,464
2027-28	\$427,600	\$0	\$1,500,000	\$1,927,600
2028-29	\$396,200	\$233,149	\$0	\$629,349
2029-30	\$397,400	\$5,918	\$0	\$403,318
Total	\$4,405,600	\$468,246	\$1,500,000	\$6,373,846

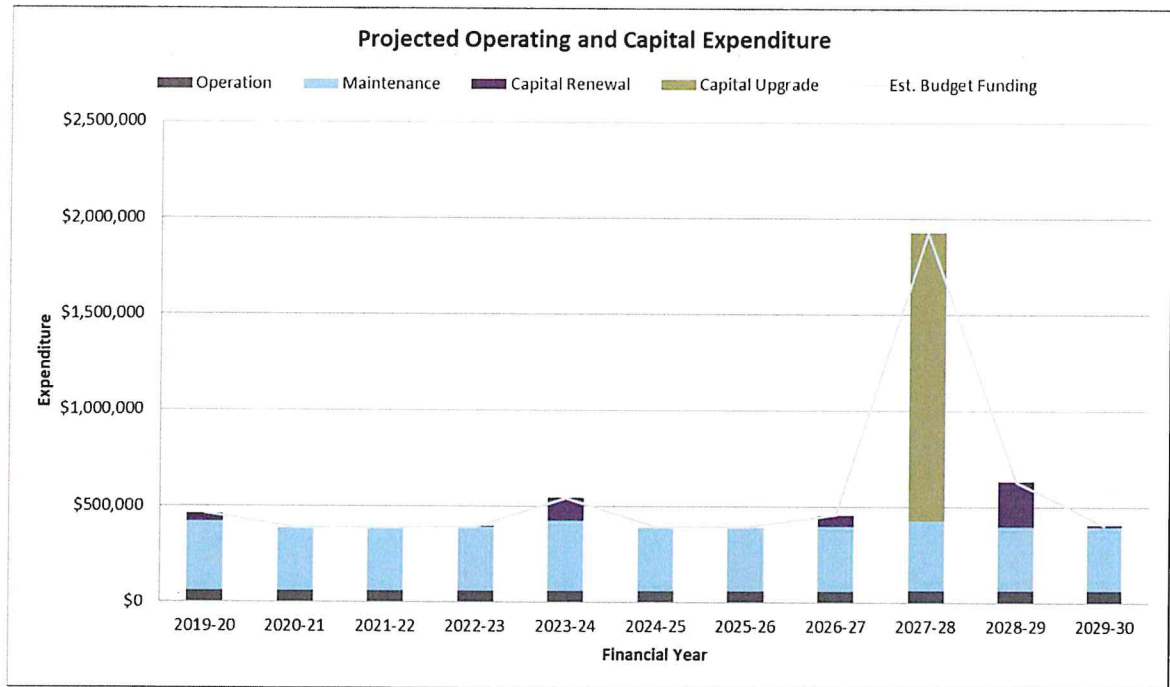


Figure 6 Projected Operating and Capital Expenditure over the Medium Term (10 Years)

The average projected operations, maintenance and capital expenditure required over the 10 year planning period is \$579,441 per year.

5 Plan Improvement and Monitoring

The following tasks have been identified for improving future versions of the plan. Council should assign responsibilities and resources to these tasks as part of the endorsement of the plan.

Table 12 Tasks identified for improving future versions of the plan

Task No.	Task	Responsibility
1.	Conduct a risk assessment workshop in order to develop a critical risk and treatment plan for inclusion in future iterations of the plan.	Council
2.	The CWMS assets renewal plan is currently based on the age and standard useful lives of the assets for most assets. As the assets age a condition based approach to determining the remaining lives of the assets will assist in renewal planning. Regular inspections of the assets at the pumping stations and treatment facilities and inspection of a sample of the longer life assets is recommended.	Council

This asset management plan will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

This plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

6 References

District Council of Tumby Bay Strategic Plan 2020-2030

District Council of Tumby Bay Annual Business Plan 2017-2018

IPWEA, 2006, NAMS.PLUS3 Asset Management, Institute of Public Works Engineering Australia, Sydney, www.ipwea.org

IPWEA, 2011, Asset Management for Small, Rural or Remote Communities Practice Note, Institute of Public Works Engineering Australia, Sydney, www.ipwea.org

District Council of Tumby Bay CWMS Asset Valuation & Methodology 1 July 2019 (20190638R003RevA)

Appendix A – Projected 10 Year Capital Renewal

Tumby Bay and Port Neill CWMS Projected 10 Year Capital Renewal Program

Town	Asset ID	Sub Category	Asset Name	Useful Life (years)	Planned Renewal Year	Renewal Cost (\$)
Tumby Bay	1,740	Mechanical	Pump Motor 1 for Pump Station 2 in West Tce	15	2019-20	\$4,854
Tumby Bay	1,756	Mechanical	Pump Motor 2 for Pump Station 2 in West Tce	15	2019-20	\$4,854
Tumby Bay	1,757	Mechanical	Pump Motor 2 for Pump Station 5 in Tumby Tce (opposite Seabreeze Hotel)	15	2019-20	\$8,952
Tumby Bay	1,758	Mechanical	Pump Motor 2 for Pump Station 8 in Dutton Tce	15	2019-20	\$4,854
Tumby Bay	1,759	Mechanical	Pump Motor 2 for Pump Station 9 in Robert St	15	2019-20	\$4,854
Tumby Bay	1,741	Mechanical	Pump Motor 1 for Pump Station 11 in Graham Smelt Causeway (Corner of Lawrie St McCallum St)	15	2019-20	\$4,854
Tumby Bay	1,755	Mechanical	Pump Motor 2 for Pump Station 11 in Graham Smelt Causeway (Corner of Lawrie St McCallum St)	15	2019-20	\$4,854
Tumby Bay	1,734	Mechanical	Pump Motor 1 for Pump Station 16 in Graham Smelt Causeway (Corner of Wandana Pl)	15	2019-20	\$4,854
				Subtotal 2019-20		\$42,930
Tumby Bay	1,752	Mechanical	Pump Motor 2 for Pump Station 4 in Excell St	15	2022-23	\$4,854
				Subtotal 2022-23		\$4,854
Tumby Bay	1,729	Mechanical	Pump Motor 1 for Pump Station 3 in Phyllis St	15	2023-24	\$4,854
Tumby Bay	1,751	Mechanical	Pump Motor 2 for Pump Station 3 in Phyllis St	15	2023-24	\$4,854
Tumby Bay	1,730	Mechanical	Pump Motor 1 for Pump Station 4 in Excell St	15	2023-24	\$4,854
Tumby Bay	1,731	Mechanical	Pump Motor 1 for Pump Station 6 in O'Connor St	15	2023-24	\$4,854
Tumby Bay	1,743	Mechanical	Pump Motor 2 for Pump Station 6 in O'Connor St	15	2023-24	\$4,854
Tumby Bay	1,742	Mechanical	Pump Motor 1 for Pump Station 7 in Butterfield St	15	2023-24	\$4,854
Tumby Bay	1,753	Mechanical	Pump Motor 2 for Pump Station 7 in Butterfield St	15	2023-24	\$4,854
Tumby Bay	1,733	Mechanical	Pump Motor 1 for Pump Station 8 in Dutton Tce	15	2023-24	\$4,854
Tumby Bay	1,725	Mechanical	Pump Motor 1 for Pump Station 9 in Robert St	15	2023-24	\$4,854
Tumby Bay	1,735	Mechanical	Pump Motor 1 for Pump Station 10 in West Tce (in Football Grounds)	15	2023-24	\$4,854
Tumby Bay	1,754	Mechanical	Pump Motor 2 for Pump Station 10 in West Tce (in Football Grounds)	15	2023-24	\$4,854
Tumby Bay	1,736	Mechanical	Pump Motor 1 for Pump Station 12 in Berryman St	15	2023-24	\$4,854
Tumby Bay	1,737	Mechanical	Pump Motor 1 for Pump Station 13 in Tumby Tce (Yacht Club)	15	2023-24	\$8,952
Tumby Bay	1,747	Mechanical	Pump Motor 2 for Pump Station 13 in Tumby Tce (Yacht Club)	15	2023-24	\$8,952
Tumby Bay	1,738	Mechanical	Pump Motor 1 for Pump Station 14 in Tumby Bay Caravan Park (Foreshire)	15	2023-24	\$4,854
Tumby Bay	1,748	Mechanical	Pump Motor 2 for Pump Station 14 in Tumby Bay Caravan Park (Foreshire)	15	2023-24	\$4,854
Tumby Bay	1,739	Mechanical	Pump Motor 1 for Pump Station 15 in Tumby Tce	15	2023-24	\$8,952
Tumby Bay	1,749	Mechanical	Pump Motor 2 for Pump Station 15 in Tumby Tce	15	2023-24	\$8,952
Tumby Bay	1,760	Mechanical	Pump Motor 2 for Pump Station 16 in Graham Smelt Causeway (Corner of Wandana Pl)	15	2023-24	\$4,854
Tumby Bay	2,022	Mechanical	Tsurimi 1.5kW Submersible Aerator at Tumby Bay Treatment Plant	15	2023-24	\$4,904
Tumby Bay	2,029	Mechanical	EBARA Supernatant Pump at Tumby Bay Treatment Plant	15	2023-24	\$3,009
Tumby Bay	2,030	Mechanical	Iwaki Hypochlorite Dosing Pump at Tumby Bay Treatment Plant	15	2023-24	\$2,200
				Subtotal 2023-24		\$118,731
Tumby Bay	1,732	Mechanical	Pump Motor 1 for Pump Station 1 in Elanora Ave	15	2026-27	\$8,952
Tumby Bay	1,745	Mechanical	Pump Motor 2 for Pump Station 1 in Elanora Ave	15	2026-27	\$8,952
Tumby Bay	1,726	Mechanical	Pump Motor 1 for Pump Station 5 in Tumby Tce (opposite Seabreeze Hotel)	15	2026-27	\$8,952
Tumby Bay	1,727	Mechanical	Pump Motor 1 for Pump Station 17 in McCallum St Pump Chamber 1	15	2026-27	\$8,952
Tumby Bay	1,750	Mechanical	Pump Motor 2 for Pump Station 17 in McCallum St Pump Chamber 1	15	2026-27	\$8,952
Tumby Bay	1,728	Mechanical	Pump Motor 1 for Pump Station 18 in Bawden St	15	2026-27	\$8,952
Tumby Bay	1,744	Mechanical	Pump Motor 2 for Pump Station 18 in Bawden St	15	2026-27	\$8,952
				Subtotal 2026-27		\$62,664
Tumby Bay	4,350	Mechanical	Single Stage Side Channel Blower VSD for SBR Aerator at Tumby Bay Treatment Plant	15	2028-29	\$65,605
Tumby Bay	9,304	Mechanical	UV Disinfection System at Tumby Bay Treatment Plant	10	2028-29	\$11,760
Tumby Bay	2,015	Civil	Shower/Eye Wash Station at Tumby Bay Treatment Plant	20	2028-29	\$4,484
Tumby Bay	2,017	Mechanical	M-324-120-AC Auto Spin Klin Disc Filter at Tumby Bay Treatment Plant	20	2028-29	\$15,802
Tumby Bay	2,018	Mechanical	Abtech 1200 Carbon Filter at Tumby Bay Treatment Plant	20	2028-29	\$30,112
Tumby Bay	2,020	Instrumentation	Quadbeam Turbidity Station at Tumby Bay Treatment Plant	20	2028-29	\$11,005
Tumby Bay	2,023	Mechanical	EBARA Above Ground Transfer Pump 1 at Tumby Bay Treatment Plant	20	2028-29	\$4,752
Tumby Bay	2,024	Mechanical	EBARA Above Ground Transfer Pump 2 at Tumby Bay Treatment Plant	20	2028-29	\$4,752
Tumby Bay	2,025	Mechanical	EBARA Above Ground Tertiary Pump 1 at Tumby Bay Treatment Plant	20	2028-29	\$6,052
Tumby Bay	2,026	Mechanical	EBARA Above Ground Tertiary Pump 2 at Tumby Bay Treatment Plant	20	2028-29	\$6,052
Tumby Bay	2,027	Mechanical	ITT Flygt Above Ground Irrigation Pump at Tumby Bay Treatment Plant	20	2028-29	\$6,052
Tumby Bay	2,028	Mechanical	EBARA Above Ground Fill Station Pump at Tumby Bay Treatment Plant	20	2028-29	\$6,052
Tumby Bay	2,033	Instrumentation	Flow Meter (<=DN150) at Tumby Bay Treatment Plant	20	2028-29	\$3,244

Tumby Bay and Port Neill CWMS Projected 10 Year Capital Renewal Program

Town	Asset ID	Sub Category	Asset Name	Useful Life (years)	Planned Renewal Year	Renewal Cost (\$)
Tumby Bay	2,034	Valve	Actuated Valve (DN80) at Tumby Bay Treatment Plant	20	2028-29	\$3,038
Tumby Bay	2,035	Valve	Actuated Valve (DN100) at Tumby Bay Treatment Plant	20	2028-29	\$3,038
Tumby Bay	2,036	Valve	Actuated Valve (DN150) at Tumby Bay Treatment Plant	20	2028-29	\$4,126
Tumby Bay	2,037	Valve	Air Release Valve at Tumby Bay Treatment Plant	20	2028-29	\$546
Tumby Bay	2,038	Valve	Control Valve (DN100) at Tumby Bay Treatment Plant	20	2028-29	\$3,038
Tumby Bay	2,243	Instrumentation	Irrigation Toro Modular Controller (TMC-424E) for Tumby Bay Foreshore (North End System)	20	2028-29	\$1,265
Tumby Bay	2,244	Instrumentation	Irrigation Toro Flow Meter (TFS-150) for Tumby Bay Foreshore (North End System)	20	2028-29	\$694
Tumby Bay	2,245	Instrumentation	Irrigation Toro Water Meter (40mm WMMJ-040-P100 class B ISO 4064) for Tumby Bay Foreshore (North End System)	20	2028-29	\$694
Tumby Bay	2,246	Valve	Irrigation RPZ Non Return Valve (Apollo Conbraco 4020T11) for Tumby Bay Foreshore (North End System)	20	2028-29	\$1,313
Tumby Bay	2,247	Mechanical	Irrigation Filter (SA500C) for Tumby Bay Foreshore (North End System)	20	2028-29	\$7,433
Tumby Bay	8,732	Valve	Irrigation 40mm Solenoid Valves for Tumby Bay Foreshore (North End System)	20	2028-29	\$2,540
Tumby Bay	8,733	Valve	Irrigation 40mm Ball Valve Flushing Point for Tumby Bay Foreshore (North End System)	20	2028-29	\$3,266
Tumby Bay	2,252	Instrumentation	Irrigation Toro Modular Controller (TMC-424E) for Tumby Bay Foreshore (South End System)	20	2028-29	\$1,265
Tumby Bay	2,253	Instrumentation	Irrigation Toro Flow Meter (TFS-150) for Tumby Bay Foreshore (South End System)	20	2028-29	\$694
Tumby Bay	2,254	Instrumentation	Irrigation Toro Water Meter (40mm WMMJ-040-P100 class B ISO 4064) for Tumby Bay Foreshore (South End System)	20	2028-29	\$694
Tumby Bay	2,255	Valve	Irrigation RPZ Non Return Valve (Apollo Conbraco 4020T11) for Tumby Bay Foreshore (South End System)	20	2028-29	\$1,313
Tumby Bay	2,256	Mechanical	Irrigation Filter (SA500C) for Tumby Bay Foreshore (South End System)	20	2028-29	\$7,433
Tumby Bay	8,737	Valve	Irrigation 40mm Solenoid Valves for Tumby Bay Foreshore (South End System)	20	2028-29	\$3,628
Tumby Bay	8,738	Valve	Irrigation 40mm Ball Valve Flushing Point for Tumby Bay Foreshore (South End System)	20	2028-29	\$3,991
Tumby Bay	8,698	Valve	Irrigation Diversion Valve (DN150) (CWMS-N-1246) in Carr Street	20	2028-29	\$4,126
Tumby Bay	8,699	Valve	Irrigation Scour Valve (DN150) (CWMS-N-1243) in Tresize street	20	2028-29	\$1,339
Tumby Bay	8,709	Valve	Irrigation Isolation Valve (DN90) (CWMS-N-1355) in Tumby Terrace	20	2028-29	\$612
Tumby Bay	8,710	Valve	Irrigation Isolation Valve (DN150) (CWMS-N-1356) in McCallum Street	20	2028-29	\$1,339
					Subtotal 2028-29	\$233,149
Tumby Bay	8,703	Valve	Irrigation Isolation Valve (DN150) (CWMS-N-1351) in Tresize Street	20	2029-30	\$1,339
Tumby Bay	8,704	Valve	Irrigation Isolation Valve (DN150) (CWMS-N-1352) in Tresize Strret	20	2029-30	\$1,339
Tumby Bay	8,707	Valve	Irrigation Air Release Valve (DN150) (CWMS-N-1344) in McCallum Street	20	2029-30	\$1,901
Tumby Bay	8,708	Valve	Irrigation Scour Valve (DN150) (CWMS-N-1345) in McCallum Street	20	2029-30	\$1,339
					Subtotal 2029-30	\$5,918
			Total 2019-20 and 10 Year Renewal Plan			\$468,246