



Cassowary Coast Regional Council

Marine Asset Management Plan



Document Control					
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This document is a modified version of the Nams Plus template. The information contained in this document is obtained from Nams Plus 3 web based program using data from Cassowary Coast Regional Council.

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1. Asset Management Plan Context

The Marine Asset Management Plan provides the financial and asset information only. It should be read in conjunction with:

- CCRC Asset Management Policy
- CCRC Asset Management Strategy
- CCRC What is Asset Management
- CCRC Asset Management Definitions
- CCRC Asset Management Portfolio
- CCRC Non Current Assets Disposal Policy
- Queensland Recreational Boating Facilities Demand Forecast 2016 (GHD)
- Perry Harvey Jetty Plan Management Strategies Options Report 2017 (Aecom)
- Memorandum of Understanding – Mission Beach Safer Boating Management Arrangements (ECM 1457699)

The objective of this Asset Management Plan is to provide a summarised view of the Marine Asset Status.

2. Asset Class

This plan covers the Marine asset class. There are currently no sub-classes defined within Marine. A future improvement in managing the Marine assets will be creating asset sub-classes.

The value of the assets is listed in Table 1 below:

Table 1: Marine Asset Values in 000's

Class	Quantity	Current Rep Cost	WDV	Accumulated Depreciation	Annual Depreciation
Marine	NA	\$35,485	\$23,328	\$12,156	\$802

The figures indicate that the average expected lives of assets is approximately 44 years (\$35,485/\$802). This appears to be a reasonable figure.

The average remaining lives is approximately 29 years (\$23,253/\$802).

This Marine Asset Class provides the following services to the community:

- Recreational boat ramps and pontoons
- Recreational fishing facilities
- Coastal protection structures
- Commercial Fishing Facilities
- Harbour facilities

The value of the capital cost per resident is approximately \$1200.

The value of the total annual ownership cost per annum is approximately \$68 per resident per annum. Note that this is based on projected costs not budget amounts.

TMR provide the following facilities within the region.

- Cowley Beach boat ramp
- Innisfail, Edith Street (Public jetty)
- Innisfail Boat ramp, Edith Street
- Innisfail Fishboard Jetty
- Cowley Beach Boat ramp, Bambarook Road
- Tully Heads Boat ramp, Esplanade
- Hull Drive Boat ramp, Carmoo, South Hull River
- Hull River Heads Boat ramp, Tully - Hull Road
- Kurrimine Beach Boat ramp, Bramble Street
- Maria Creek Boat ramp, Haydon Road, Kurrimine Beach
- Coconut Point Floating Walkway, Fern Avenue
- Coconut Point Boat ramp, Fern Avenue
- Fishers Creek Boat ramp, off the Bruce Highway
- Cardwell Boat ramp, Sheridan Street
- South Mission Beach Boat ramp, Kennedy Esplanade
- Clump Point Boat ramp, Clump Road Lookout Road
- Flying Fish Point Boat ramp, Flying Fish Point Road
- Mourilyan Harbor Boat Ramp and Facilities*

Relevant to the abovementioned facilities Council's role as the Facility Manager has operational obligations and undertakes maintenance on behalf of TMR as per the Transport Infrastructure (Public Marine Facilities) Regulation 2011 schedule 1 – (<https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TransInfPuMR11.pdf>).

These operational and maintenance activities include but not limited to:

- Inspection of facilities (identification of maintenance and condition);
- Cleaning and general maintenance of the facilities;
- Maintaining roads, parking facilities, amenities and gardens in the facility.

* Facility entirely operated by TMR with no Council involvement.

3. Indicators

3.1. General

There are two aspects to indicators on how the council is performing in managing the Marine network. The first is the financial aspects and the second is the condition aspects.

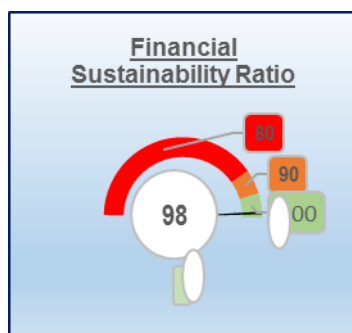
The Financial indicators show that the Marine Asset Management is not sustainable at current budget levels. Until the missing assets have been entered into the system no action should be taken.

3.2. Financial

The financial indicators provide a view on how CCRC is performing in the financial management of the assets.

Financial Sustainability Ratio

This ratio tells Council whether it can afford to own the assets they currently have over the long term. Values are per annum for a 10 year planning period. The current 10 year financial plan includes significant renewal costs associated with coastal protection structures. Due to the relatively small asset base in the marine class and the significant cost of the individual assets within the class renewal expenditure has significant peaks and troughs over time.



$$\text{Ratio} = \frac{\text{Planned Total Budget}}{\text{Required Total Expenditure}} = \frac{\$22.9\text{m}}{\$23.4\text{m}}$$

Council Value = 98%

Good = 90%

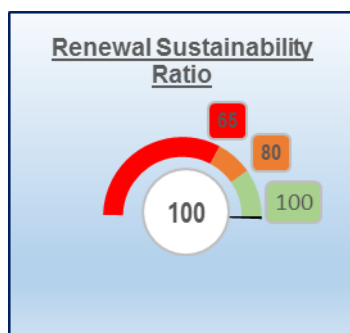
Acceptable = 80% to 90%

These values include all expenditure

The CCRC Financial Sustainability Ratio is 98%. This a very good value and demonstrates Council's commitment to fund renewal in the marine asset class.

Renewal Sustainability Ratio

This ratio tells council whether it can afford to renew assets as required over the long term. Values are per annum of a 10 year planning period. The required expenditure is obtained from technical analysis and planned expenditure is the budget from the Long Term Financial Plan.

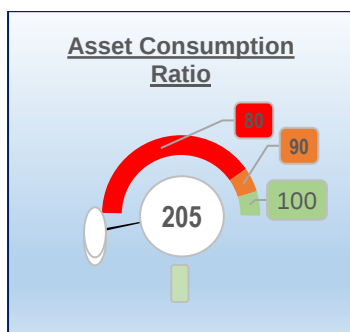


$$\text{Ratio} = \frac{\text{Planned Renewal Expenditure}^*}{\text{Required Renewal Expenditure}^*} = \frac{\$16.4\text{m}}{\$16.4\text{m}}$$

Council Value = 100%
 Good = 90%
 Acceptable = 80% to 90%

Asset Consumption Ratio

The Asset Consumption Ratio provides an indication whether renewals is keeping pace with consumption. The measure of consumption used by IPWEA is the annual depreciation of the asset. The difference between this indicator and the previous indicator is that the consumption is the theoretical renewal requirement defined by annual depreciation. It simply measured whether council renewal spending matches the depreciation.



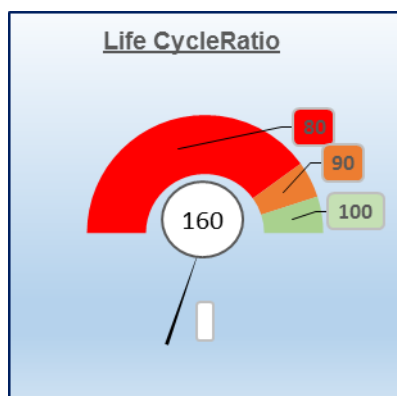
$$\text{Ratio} = \frac{\text{Renewal Rate}}{\text{Consumption Rate}} = \frac{4.6\%}{2.3\%}$$

Council Value = 205%
 Good = 90%
 Acceptable = 80% to 90%

This ratio indicates the planned significant renewal investment in the marine asset classes particularly in the seawalls area. As there are comparatively fewer assets in the marine class but many are high value the major investment over the next 10 years produces a very high asset consumption ratio.

Life Cycle Indicator

The life cycle indicator is a further view of Depreciation compared to Renewal expenditure. The Operations and Maintenance costs are included in this indicator. Values are per annum of a 10 year planning period.



$$\text{Ratio} = \frac{\text{Life Cycle Expenditure}^1}{\text{Life Cycle Costs}^2} = \frac{\$2.300\text{m}}{\$1.437\text{m}}$$

Council Value = 160%

Good = 90%

Acceptable = 80% to 90%

¹ Life Cycle Expenditure includes Operations, Maintenance and Renewal expenditure.

² Life Cycle Cost includes Operations, Maintenance and Depreciation expenditure.

Table 2 shows the Life Cycle Expenditure and Cost make up in \$000's.

	Life Cycle Cost	Life Cycle Expenditure
Operations	\$370	\$370
Maintenance	\$290	\$290
Renewal		\$1,640
Depreciation	\$777	
Total	\$1,437	\$2,300

Table 2: Life Cycle Expenditure and Cost

$$\begin{aligned} \text{Life Cycle Gap} &= \text{Life Cycle Cost} - \text{Life Cycle Expenditure} \\ &= \$1,437 - \$2,300 = -\$863 \end{aligned}$$

This negative gap represents that for the next 10 years Council will be expending more than the average annual cost. This is predominately due to a higher than average number of large renewal projects.

Rate of Annual Upgrade/New

This is a measure of the rate of growth of the infrastructure. It is the averaged increase on an annual basis for 10 years.

The Rate of Annual Asset Upgrade = 1.0%

The reason for this low growth must be analysed in terms of the low population growth as generally the growth in assets should match the Demand Forecast. Currently the demand forecast shows a negative growth or at best retaining current status quo. The population of the region is steady and the

level of marine infrastructure provision is generally considered adequate. This would indicate that the new asset expenditure should be limited.

3.3. Condition

The condition index is a snapshot of the current overall condition of the network. Council uses a 1 to 5 condition scale where condition 1 is like new and condition 5 is end of life. It is displayed as the value per condition. The average condition for the marine class is 2.5. An average condition rating of 3 typically indicates that for mature networks that the investment in renewals is generally keeping up with asset consumption. A lower value may indicate over investment, while a higher value may indicate underinvestment. When viewed together with the financial indicators above it will indicate whether the future investment needs to be adjusted.

Figure 1 below is an age profile of the Marine assets.

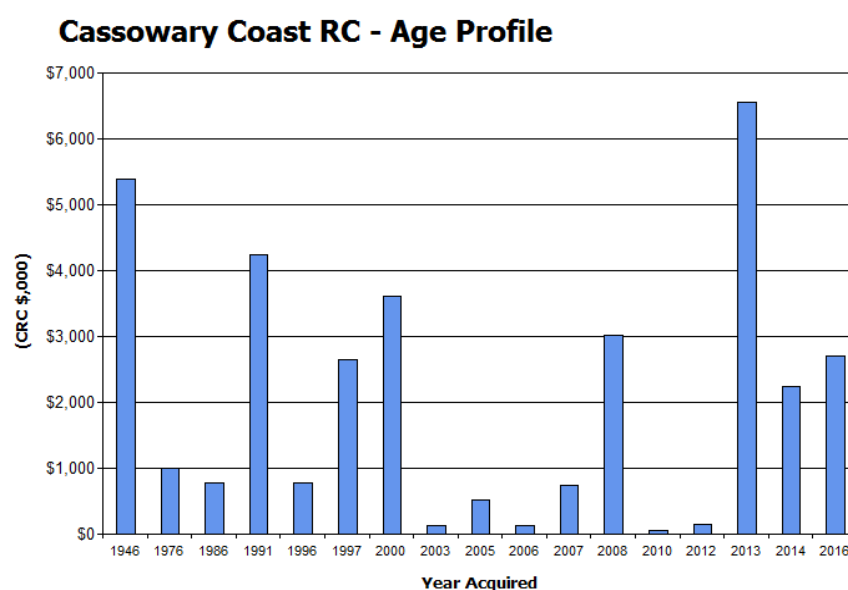


Figure 1: Asset Age Profile

Figure 2 below is the condition profile of the Marine assets.

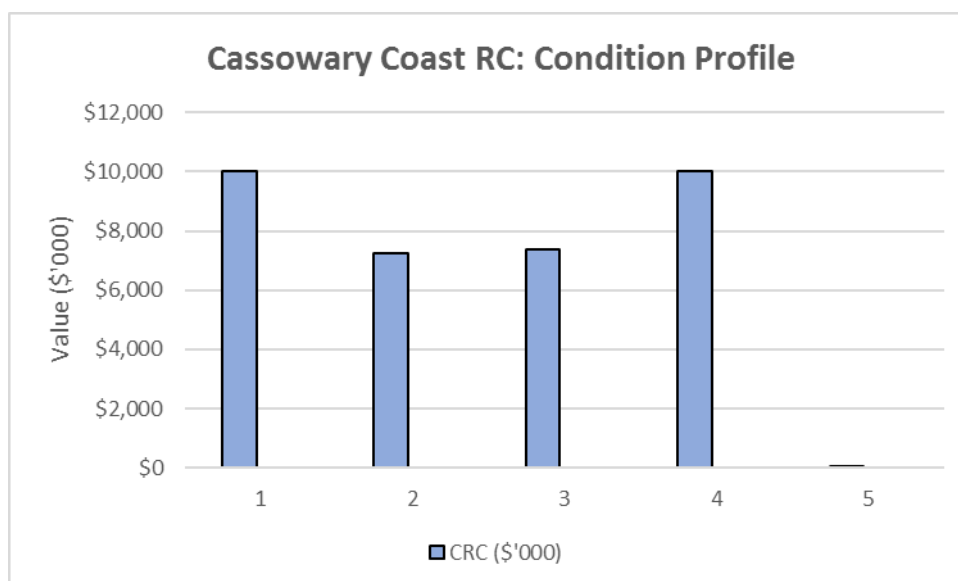


Figure 2: Asset Condition by Value

The recommended renewal / upgrade projects recommended exceeds the current replacement cost of all assets currently rated Condition State 4 or worse. This reflects the relatively short lifespan of some marine assets and two strategies:

- To upgrade seawalls owned by CCRC to current standards
- To invest on components of significant infrastructure to maximise useful life and minimise whole of life costs

Council's Renewal Priorities include:

- Seawalls
- Johnstone River revetment wall
- Strategic investment on Jetties and Wharf

4. Financial Expenditure

4.1. Total Costs

The Figure 3 below shows the total costs of owning and managing the Marine assets.

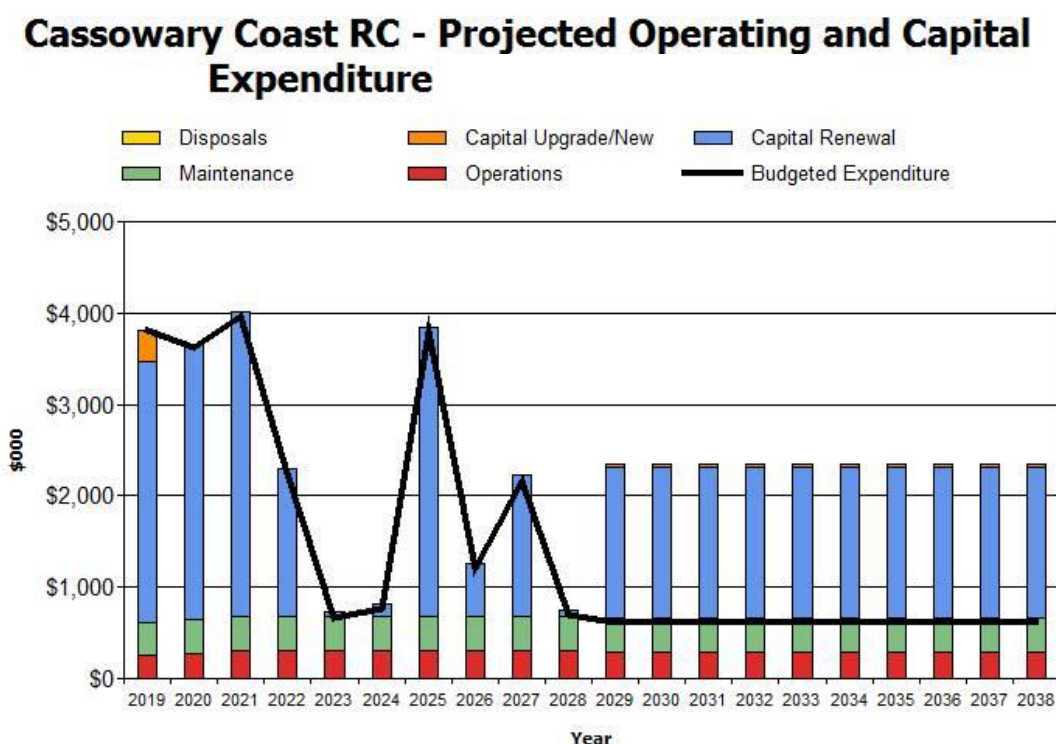


Figure 3: Total Marine Asset Costs

The above graph is created from the data in Table 3 below.

Table 3: Marine Assets Annual Costs

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Operations	\$247	\$272	\$297	\$297	\$297	\$297	\$297	\$297	\$297	\$297	\$2,895
Maintenance	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$3,700
Renewals	\$2,846	\$3,005	\$3,345	\$1,620	\$50	\$150	\$3,170	\$585	\$1,550	\$80	\$16,401
Upgrade	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,676
Total	\$3,813	\$3,647	\$4,012	\$2,287	\$717	\$817	\$3,837	\$1,252	\$2,217	\$747	\$23,346
Total Budget	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$22,920
Shortfall	-\$1,521	-\$1,355	-\$1,720	\$5	\$1,575	\$1,475	-\$1,545	\$1,040	\$75	\$1,545	Total

The cumulative 10 year costs are represented in the Table 4 and Figure 4 below

10 Year Expenditure	
Operations	\$2,895
Maintenance	\$3,700
Renewals	\$16,401
Upgrade	\$350
Total	\$23,346
Total Budget	\$22,920
Shortfall	-\$426

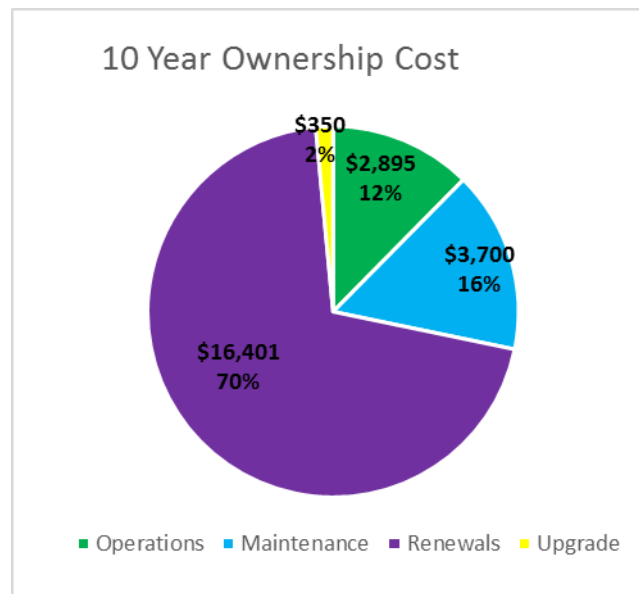


Table 4: Cumulative 10 Year Expenditure

Figure 4: Cumulative 10 Year Expenditure

The cumulative funding gap over 10 years is \$0.5 million. This represents the additional costs of management associated with the Meunga Creek Pontoon and the Mission Beach Safer Boating Project.

4.2. Renewal Expenditure

The following Figure 5 shows the renewal requirement compared to planned renewals

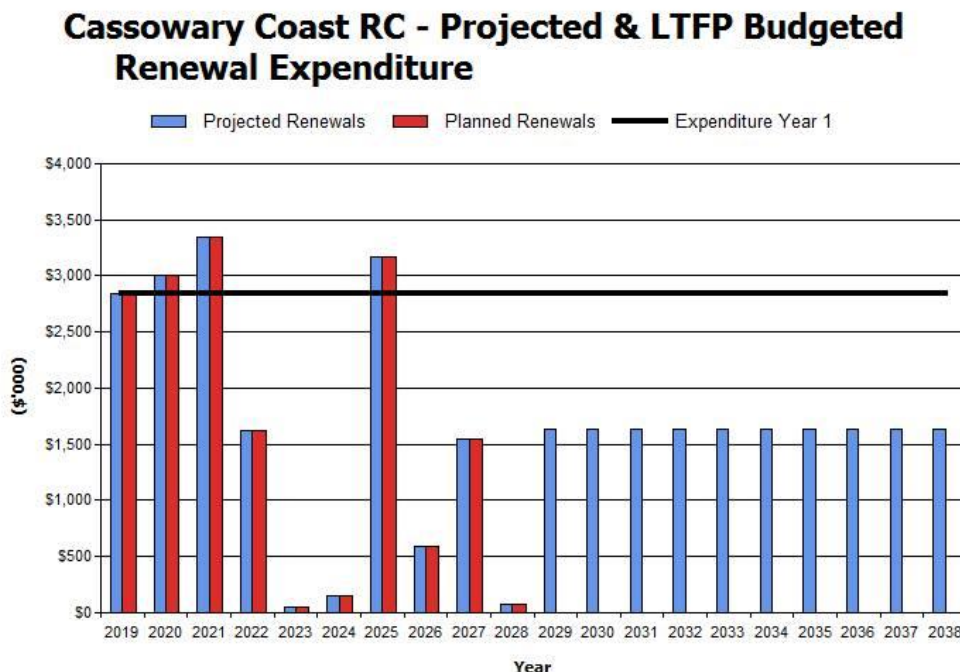


Figure 5: Renewals Projected vs Planned Costs

In the next 10 year period Council is fully funding its renewals for the marine class.

Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with the corresponding capital works program accommodated in the long term financial plan.

A gap between projected asset renewal/replacement expenditure and amounts accommodated in the LTFP indicates that further work is required on reviewing service levels in the Asset Management Plan (including possibly revising the LTFP) before finalising the Asset Management plan to manage required service levels and funding to eliminate any funding gap.

As Council's priorities and financial position change Council will manage the 'gap' by developing this Asset Management plan to provide guidance on future service levels and resources required to provide these services, review future services, service levels and costs with the community.

5. Basis of Plan

Certain factors combine to provide input to the standard of asset that council provides. The way Council manages its marine assets is influenced by Customer Service Levels, Technical Service Levels, Legislative Requirements and Other Factors. Details of these factors can be found in Appendix C or in Council's 'What is Asset Management' document.

6. Demand Forecast

6.1. General

The demand for services is driven by growth in population, growth in business, growth in tourism, reaction to technology changes and predicted climate change. Growth can be positive or negative. The following have been considered:

- Population and Tourism
- Climate change – Council is developing a Coastal Hazard Adaptation Strategy (CHAS) which will guide Council's decision making for infrastructure in relation to climate change
- New Assets
- Available Standards
- Over 4200 registered vessels within the Cassowary Coast
- Over 1000 registered vessels from outside of the Cassowary Coast utilising boating facilities in the CCRC region.
- Mission Beach Facilities. With the significant facilities to be delivered by Department of Transport and Main Roads (DTMR) at Clump Point and the ongoing uncertainty of future demand associated with the Dunk Island Resort the ongoing relevance of the Perry Harvey and Dunk Island Jetties must continue to be reviewed as recommended investment will vary with alternative long term use requirements.
- The condition of the canal leading to the Port Hinchinbrook boat ramp, outside of the management of CCRC, plays a significant role in the usability of the largest CCRC owned recreational facility and the future role of the Cardwell Jetty

The Department of Transport and Main Roads (TMR) have recently completed a needs assessment for recreational marine infrastructure throughout Queensland. The report recommends the expansion of the Mourilyan Harbour to 5 lanes and an additional car parking. (This is entirely a DTMR facility). It also recommends additional car parks at Port Hinchinbrook (This is entirely a CCRC facility) however this is not a project recommended to be funded in this AMP due to the uncertainty of the condition of the canal and the availability of land.

7. Future Projection

The following Table 5 shows the future financial requirements to manage the Marine Assets.

Table 5: Total Marine Costs

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Operations	\$247	\$272	\$297	\$297	\$297	\$297	\$297	\$297	\$297	\$297	\$2,895
Maintenance	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$3,700
Renewals	\$2,846	\$3,005	\$3,345	\$1,620	\$50	\$150	\$3,170	\$585	\$1,550	\$80	\$16,401
Upgrade	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,676
Total	\$3,813	\$3,647	\$4,012	\$2,287	\$717	\$817	\$3,837	\$1,252	\$2,217	\$747	\$23,346
Total Budget	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$2,292	\$22,920
Shortfall	-\$1,521	-\$1,355	-\$1,720	\$5	\$1,575	\$1,475	-\$1,545	\$1,040	\$75	\$1,545	Total

The future projections for new work do not include externally funded projects. These projects would include private development resulting in contributed assets, state funded projects and federal funded projects. Occasionally externally funded projects will arise.

- Meunga creek pontoon
- Johnstone river boat harbour mooring piles
- Cardwell jetty fender piles

While there is no initial outlay to council in creating the assets, there is an ongoing outlay in maintenance, operations and depreciation on an annual basis. External funding for capital projects needs to be analysed for ongoing affordability.

8. Risk

An assessment of risks¹ associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock' to the organisation. 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, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in Table 81. These risks are reported to management and Council.

Key Risks:

- Natural Disasters
- Climate Change – Currently 20% of the exposed to the ocean, coastal urban footprint are protected by seawalls within the region (4.4km protected, 17.3km unprotected). Many CCRC assets (water, sewer, transport and park) are unprotected
- Changing usage patterns associated with the new Clump Point boating facilities and the operations at Dunk Island Resort and the Dunk Island Spit
- Changing patterns of use associated with the usability of the Port Hinchinbrook boat ramp
- Expiry of "Subloo's Marina" lease in March 2028, noting that the current lessee is in receivership
- The renewal of the Johnstone River Revetment Wall is proposed for renewal. There are significant risks in delivering this project given the intention to deliver an Innisfail CBD upgrade within the same site and the existing services that will be effected during construction
- Community acceptance if asset disposal strategies are progressed
- Responsibility for routine asset inspections resides within infrastructure services while the resources to undertake these inspections reside within delivery services.

Risk Treatment: Delivery services will undertake routine inspections in accordance with documented requirements.

9. Next Steps

The next steps are summarised in Council's Asset Management Definitions Documents where they are common across all asset classes. The next steps specific to marine are listed in table 6 below.

9.1. Marine Next Steps – Improvement Plan

Table 6: Improvement Plan

Task	Responsibility	Timeline
Develop Policy and Fee Structure for Commercial Facilities and Moorings (Prior to Clump Point facilities becoming operational)	DIS	October 2018
Document existing Levels of Service, Intervention Levels and Response Times	DIS	2018
Strategic review of existing Levels of Service, Intervention Levels and Response Times to develop formal operations and maintenance plans	DIS	2018
Strategic review of Marine Facilities ongoing demand including stakeholder engagement	DIS	2020
Publish adopted level of service for Marine infrastructure in updated AMP	DIS /MAE	2019
Improve data on reactive vs planned vs operational expenditure	DDS	2019
Strategic review of Mission Beach facilities – prior to significant capital expenditure on either the Perry Harvey Jetty or the Dunk Island Jetty. Consideration of the usage of the new Clump Point facilities and the regional tourism benefits of Dunk Island.	DIS	2021
Development of Individual Management Strategies for all individual assets with a replacement cost greater than \$2 million.	DIS	2022

Task	Responsibility	Timeline
Plan for disposal of Daradgee Wharf – Current sole usage – Queensland Education	DIS	2018
Coastal protection ownership policy development	DIS	2020

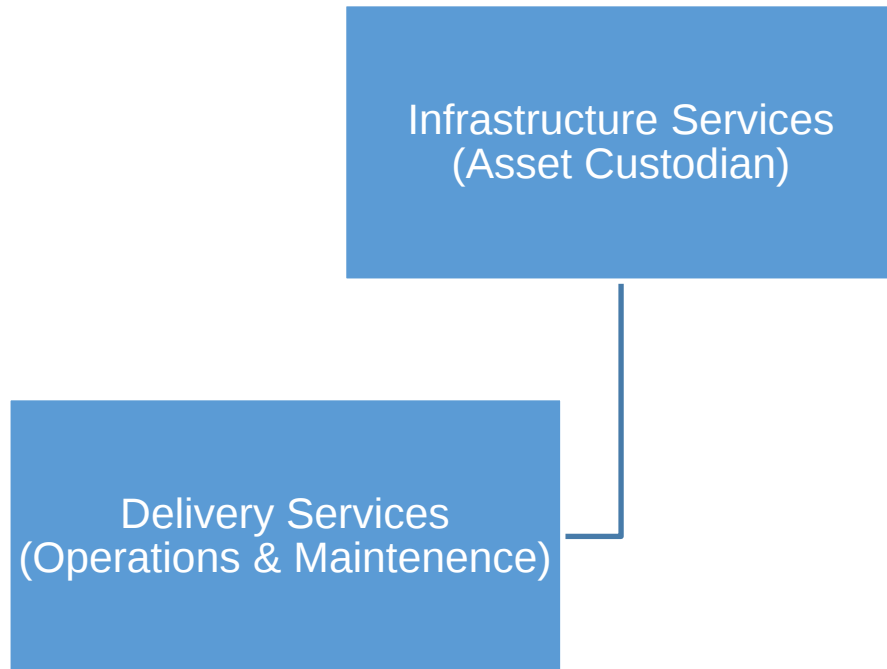
10. Plan maturity

The maturity of the Asset Management Plan is at Core level. For the effort and resource required to achieve Advanced level the benefits are questionable. The information obtain at core level provides significant challenges to Cassowary Coast Regional Council. Providing a higher level of detail will not increase the ability of CCRC to make decisions.

The level of confidence in the data is at medium to high. The staff involved with the compilation of the Marine Asset Plan have undergone training. This has resulted in a plan with high level of confidence in the outputs. Asset Information

A.1. Marine Organigram

The management of marine assets is the responsibility of the Director of Infrastructure Services. The organigram for the management of Marine Assets is shown below:



A.2. Asset List

Asset Number	Description	Current Asset Cost
1038672	Cardwell Victoria St (Ampitheatre) Seawall 1	97,455.00 \$
1081114	Flying Fish Point Elizabeth St (Residences 8-16) Seawall	678,662.00 \$
1081115	Mission Beach Clump Point (Boat Ramp) Seawall 3	336,527.00 \$
1081116	Mission Beach Clump Point (Boat Ramp) Seawall 2	384,088.00 \$
1081122	Cardwell Marine Pde (77) Sand Groyne	10,313.00 \$
1081123	Kurrimine Beach Robert Johnstone Pde (Boat Ramp) Car	125,678.00 \$
1081147	Bingil Bay Alexander Dr Seawall 1	2,642,827.00 \$
1004069	Cardwell Port Hinchinbrook (Boat Ramp) Boat Ramp	360,054.00 \$
1004080	Cardwell Port Hinchinbrook (Boat Ramp) Carpark	730,752.00 \$
1004105	Flying Fish Point Esplanade Seawall 1	5,384,428.00 \$
1004781	Cardwell Victoria St (Jetty) Seawall 2	61,483.00 \$
1028361	Flying Fish Point Elizabeth St (Toilet) Seawall 3	128,985.00 \$
1029708	Bingil Bay Alexander Dr Seawall 2	726,225.00 \$
1029709	Hull Heads Luff St (1-9) Seawall	468,068.00 \$
1081117	Tully Heads Taylor St (50-64) Seawall 1	745,850.00 \$
1081118	Tully Heads Taylor St (2-40) Seawall 2	2,124,275.00 \$
1081119	South Mission Kennedy Esp (BoatRamp-14) Seawall 2	1,811,636.00 \$
1081121	Kurrimine Beach Robert Johnstone Pde (North Boat Ramp	10,313.00 \$
1004075	South Mission Hull River (Jackey Jackey St) Boat Ramp	211,745.00 \$
1004076	Cardwell Meunga Ck Boat Ramp	197,748.00 \$
1029711	South Mission Kennedy Esp (14-26) Seawall 1	830,099.00 \$
1081038	Innisfail Boat Harbour Piles Mooring Fender Piles	540,000.00 \$
1081113	Cardwell Victoria St (Jetty) Seawall 3	17,198.00 \$
1081124	Innisfail Boat Harbour Gangways	138,240.00 \$
1081125	Mission Beach Alexander Dr Carpark Perry Harvey Jett	79,718.00 \$
1081148	Hull Heads Huxley St (Boat Ramp) Pontoon	331,727.00 \$
1004079	Cardwell Victoria St (Jetty) Jetty	3,169,383.00 \$
1004411	Mission Beach Clump Point (Boat Ramp) Pontoon	477,182.00 \$
1004412	Daradgee Daradgee Wharf Jetty	230,954.00 \$
1004415	Dunk Dunk Island Jetty	2,549,477.00 \$
1081029	Innisfail Boat Harbour Jetty Commercial Wharf	2,712,350.00 \$
1081035	Innisfail Boat Harbour Revetment Wall Retaining Wall	771,047.00 \$
1081036	Innisfail Boat Harbour Revetment Wall Ground Anchor	232,437.00 \$
1081037	Innisfail Boat Harbour Revetment Wall King Posts Orig	993,989.00 \$
1004073	South Mission Hull River (Jackey Jackey St) Pontoon	114,208.00 \$
1004074	Cardwell Port Hinchinbrook (Boat Ramp) Pontoon	404,148.00 \$
1004410	Hull Heads Huxley St (Boat Ramp) Fishing Pontoon	166,836.00 \$
1029695	Mission Beach Alexander Dr Jetty Perry Harvey Jetty	3,932,452.00 \$
1029702	Innisfail Boat Harbour Revetment Wall King Posts New	556,160.00 \$

A.3. Data used

NAMS.PLUS3 Asset Management				Cassowary Coast RC																																	
© Copyright. All rights reserved. The Institute of Public Works Engineering Australasia																																					
Marine 2019_S2_V1				Asset Management Plan																																	
First year of expenditure projections 2019 (financial yr ending)																																					
Marine 2019 Asset values at start of planning period <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Current replacement cost</td> <td style="text-align: right;">\$35,485 (000)</td> </tr> <tr> <td>Depreciable amount</td> <td style="text-align: right;">\$35,485 (000)</td> </tr> <tr> <td>Depreciated replacement cost</td> <td style="text-align: right;">\$23,328 (000)</td> </tr> <tr> <td>Annual depreciation expense</td> <td style="text-align: right;">\$802 (000)</td> </tr> </table> Calc CRC from Asset Register \$0 (000) This is a check for you.								Current replacement cost	\$35,485 (000)	Depreciable amount	\$35,485 (000)	Depreciated replacement cost	\$23,328 (000)	Annual depreciation expense	\$802 (000)																						
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Depreciated replacement cost	\$23,328 (000)																																				
Annual depreciation expense	\$802 (000)																																				
Planned Expenditures from LTFP 20 Year Expenditure Projections Note: Enter all values in current 2019 values <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #90EE90;"> <th>Financial year ending</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> <th>2024</th> <th>2025</th> <th>2026</th> <th>2027</th> <th>2028</th> </tr> <tr style="background-color: #90EE90;"> <th></th> <th>\$000</th> <th>\$000</th> <th>\$000</th> <th>\$000</th> <th>\$000</th> <th>\$000</th> <th>\$000</th> <th>\$000</th> <th>\$000</th> <th>\$000</th> </tr> </thead> </table> Operations and Maintenance Costs for New Assets <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>% of asset value</th> </tr> </thead> <tbody> <tr> <td>Additional operations costs</td> <td style="text-align: right;">0.70%</td> </tr> <tr> <td>Additional maintenance</td> <td style="text-align: right;">1.04%</td> </tr> <tr> <td>Additional depreciation</td> <td style="text-align: right;">2.26%</td> </tr> </tbody> </table> Planned renewal budget (information only) You may use these values calculated from your data or overwrite the links.								Financial year ending	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028		\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000		% of asset value	Additional operations costs	0.70%	Additional maintenance	1.04%	Additional depreciation	2.26%
Financial year ending	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028																											
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000																											
	% of asset value																																				
Additional operations costs	0.70%																																				
Additional maintenance	1.04%																																				
Additional depreciation	2.26%																																				
Expenditure Outlays included in Long Term Financial Plan (in current \$ values)																																					
Operations																																					
Operations budget	\$149	\$149	\$149	\$149	\$149	\$149	\$149	\$149	\$149	\$149																											
Management budget	\$92	\$92	\$92	\$92	\$92	\$92	\$92	\$92	\$92	\$92																											
AM systems budget	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6																											
Total operations	\$247	\$247	\$247	\$247	\$247	\$247	\$247	\$247	\$247	\$247																											
Maintenance																																					
Reactive maintenance budget	\$123	\$123	\$123	\$123	\$123	\$123	\$123	\$123	\$123	\$123																											
Planned maintenance budget	\$185	\$185	\$185	\$185	\$185	\$185	\$185	\$185	\$185	\$185																											
Specific maintenance items budget	\$62	\$62	\$62	\$62	\$62	\$62	\$62	\$62	\$62	\$62																											
Total maintenance	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370	\$370																											
Capital																																					
Planned renewal budget	\$2,846	\$3,005	\$3,345	\$1,620	\$50	\$150	\$3,170	\$585	\$1,550	\$80																											
Planned upgrade/new budget	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																											
Non-growth contributed asset value	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																											
Asset Disposals																																					
Est Cost to dispose of assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																											
Carrying value (DRC) of disposed assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																											
Additional Expenditure Outlays Requirements (e.g from Infrastructure Risk Management Plan)																																					
Additional Expenditure Outlays required and not included above	2019 \$000	2020 \$000	2021 \$000	2022 \$000	2023 \$000	2024 \$000	2025 \$000	2026 \$000	2027 \$000	2028 \$000																											
Operations	\$0	\$25	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50																											
Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																											
Capital Renewal	to be incorporated into Forms 2 & 2.1 (where Method 1 is used) OR Form 2B Defect Repairs (where Method 2 or 3 is used)																																				
Capital Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																											
User Comments #2																																					
Forecasts for Capital Renewal using Methods 2 & 3 (Form 2A & 2B) & Capital Upgrade (Form 2C)																																					
Forecast Capital Renewal from Forms 2A & 2B	2019 \$000	2020 \$000	2021 \$000	2022 \$000	2023 \$000	2024 \$000	2025 \$000	2026 \$000	2027 \$000	2028 \$000																											
	\$2,846	\$3,005	\$3,345	\$1,620	\$50	\$150	\$3,170	\$585	\$1,550	\$80																											
Forecast Capital Upgrade from Form 2C	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																											

A.4. Basis of Valuation

Table B1: Standard Lives, Costs and Contribution to Total Depreciation

Asset (Sub)Category	Typical Replacement Cost (unit rate and Unit of Measure)	Useful life	% contribution asset class depreciation
Boat Ramps	\$200-350k each	50 years	2%
Pontoons	\$200k-400k each	20 - 25 years	8%
Jetties	\$2-4m each	50 years	32%
Erosion Protection Works	\$5,600/lm	50 years	53%
Structures	\$5k-\$3m each	45years	2%
Piles	\$21k each	45 years	2%
Carparks	\$130/m2	25 years	1%

B. Financial Information

B.1. Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

B.2. Financial Statements and Projections

The financial projections are shown in Figure B1 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

Cassowary Coast RC - Projected Operating and Capital Expenditure

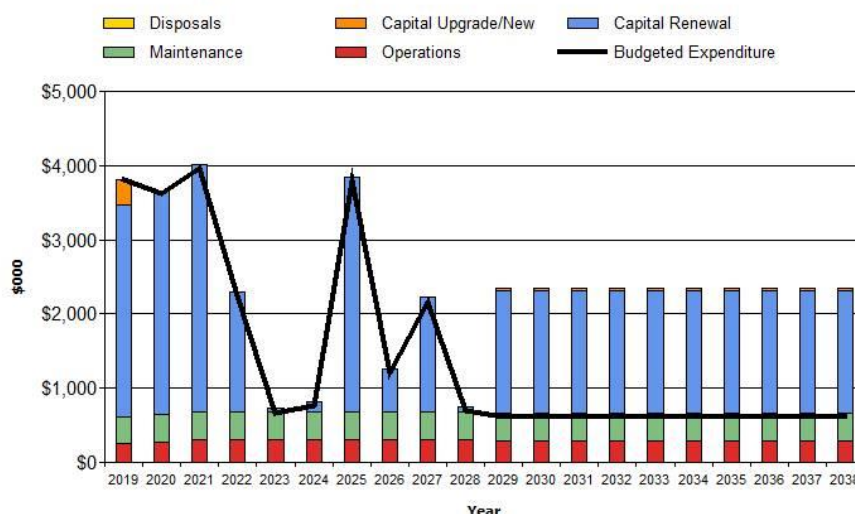


Figure B1: Projected Operating and Capital Expenditure

Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with **the corresponding** capital works program accommodated in the long term financial plan.

A gap between projected asset renewal/replacement expenditure and amounts accommodated in the LTFP indicates that further work is required on reviewing service levels in the Asset Management Plan (including possibly revising the LTFP) before finalising the asset management plan to manage required service levels and funding to eliminate any funding gap.

We will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services, and review future services, service levels and costs with the community.

Projected expenditures for long term financial plan are shown in Table B1.

Year End	Projected Renewals	LTFP Renewal Budget	Renwal Financing Shortfall (- gap, + surplus)	Cumulative Shortfall (- gap, + surplus)
30-Jun	(\$'000)	(\$'000)	(\$'000)	(\$'000)
2019	2846	2846	0	0
2020	3005	3005	0	0
2021	3345	3345	0	0
2022	1620	1620	0	0
2023	50	50	0	0
2024	150	150	0	0
2025	3170	3170	0	0
2026	585	585	0	0
2027	1550	1550	0	0
2028	80	80	0	0
2029	1640	0	-1640	-1640
2030	1640	0	-1640	-3280
2031	1640	0	-1640	-4920
2032	1640	0	-1640	-6560
2033	1640	0	-1640	-8201
2034	1640	0	-1640	-9841
2035	1640	0	-1640	-11481
2036	1640	0	-1640	-13121
2037	1640	0	-1640	-14761
2038	1640	0	-1640	-16401

Figure B1: Projected Expenditures for Long Term Financial Plan

Table B2 shows the projected expenditures for the 10 year long term financial plan. Expenditure projections are in 2019 real values.

Year	Operations	Maintenance	Projected Capital Renewal	Capital Upgrade/New	Disposals
2019	\$247	\$370	\$2,846	\$350	\$0
2020	\$274	\$374	\$3,005	\$0	\$0
2021	\$299	\$374	\$3,345	\$0	\$0
2022	\$299	\$374	\$1,620	\$0	\$0
2023	\$299	\$374	\$50	\$0	\$0
2024	\$299	\$374	\$150	\$0	\$0
2025	\$299	\$374	\$3,170	\$0	\$0
2026	\$299	\$374	\$585	\$0	\$0
2027	\$299	\$374	\$1,550	\$0	\$0
2028	\$299	\$374	\$80	\$0	\$0
2029	\$292	\$374	\$1,640	\$35	\$0
2030	\$292	\$374	\$1,640	\$35	\$0
2031	\$292	\$374	\$1,640	\$35	\$0
2032	\$293	\$375	\$1,640	\$35	\$0
2033	\$293	\$375	\$1,640	\$35	\$0
2034	\$293	\$376	\$1,640	\$35	\$0
2035	\$293	\$376	\$1,640	\$35	\$0
2036	\$294	\$376	\$1,640	\$35	\$0
2037	\$294	\$377	\$1,640	\$35	\$0
2038	\$294	\$377	\$1,640	\$35	\$0
All dollar values are in (\$'000)'s					

Table B2: Expenditure Projects

B.3. Funding Strategy

After reviewing service levels, as appropriate to ensure ongoing financial sustainability projected expenditures previously identified will be accommodated in the Council's 10 year long term financial plan.

B.4. Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Figure B2: Current Replacement Cost Projection shows the projected replacement cost asset values over the planning period in real values.

Cassowary Coast RC - Projected Asset Values

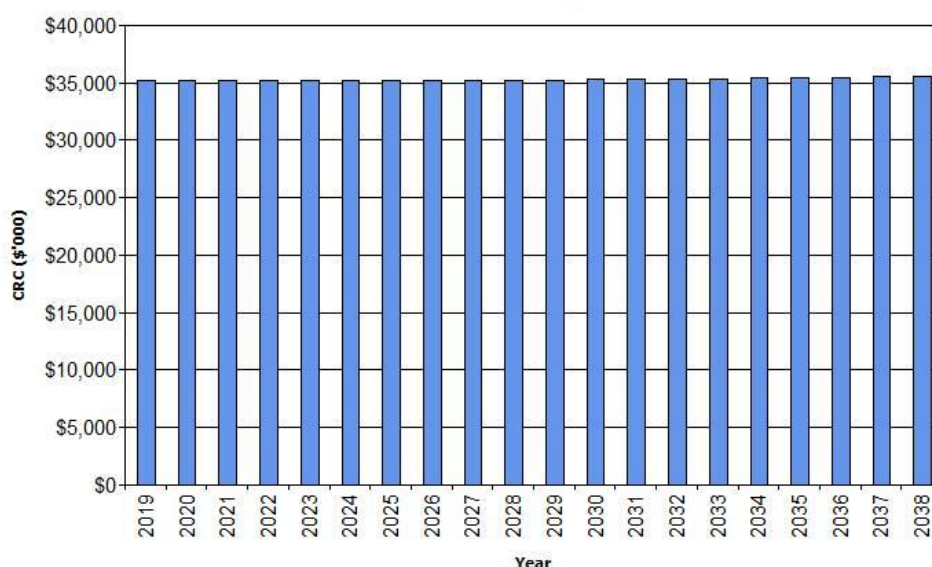


Figure B2: Current Replacement Cost Projection

The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in Figure B3. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.

Cassowary Coast RC - Projected Depreciated Replacement Cost

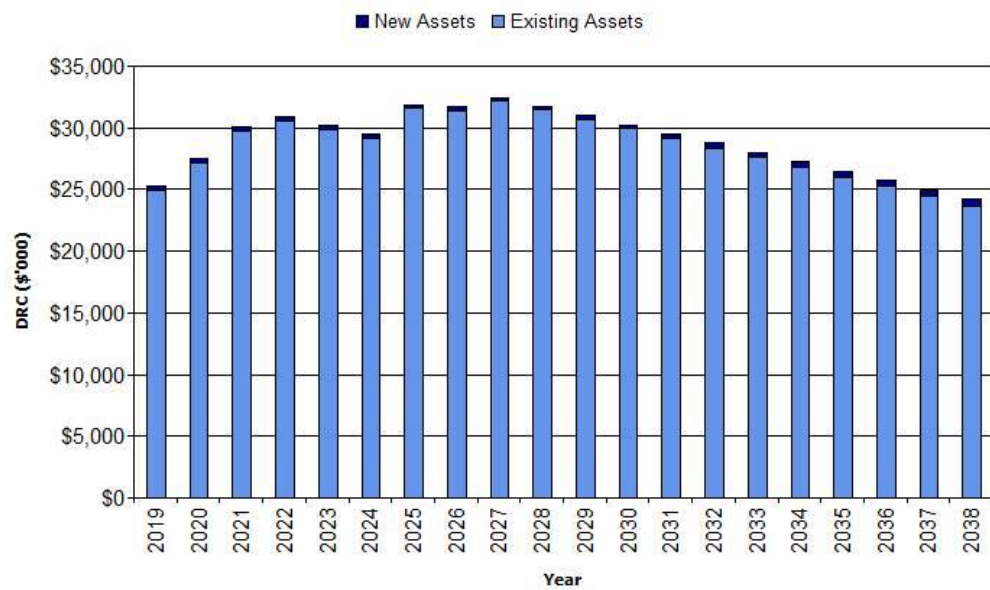


Figure B3: Projected Depreciated Replacement Cost

C. Demand Factors

C.1. Customer Levels of Service

The organisation's current and expected community service levels are understood by management throughout various documents. As part of the organisational restructure, the new organisation will develop levels of service in consultation with Council and the community.

C.2. Technical Levels of Service

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.

Technical levels of service will be developed as identified in the improvement plan. The agreed sustainable position will be developed and the position agreed by the Council/Board following community consultation and trade-off of service levels performance, costs and risk within resources available in the long-term financial plan.

C.3. Legislation

The following is the relevant legislation relation to the provision and ownership of Marine Assets.

Table C1: Legislation

Legislation	Requirement
Local Government Act 2009	The purpose of this Act is to provide for the way in which a local government is constituted and the nature and extent of its responsibilities and powers and a system of local government in Queensland that is accountable, effective, efficient and sustainable. Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Transport Infrastructure (Public Marine Facilities) Regulation 2011 schedule 1	https://www.legislation.qld.gov.au/view/pdf/inforce/current/sl-2011-0161
Marine Park Legislation	Some permits under State and Federal marine park permits for construction, maintenance and operations.

The organisation will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan linked to this Asset Management Plan.

C.4. Technology Change

Technology change has not made significant impact on the Marine assets. In the future its considered that alternative vessel design should be considered by operators to allow for passenger loading from ramps and beaches.

C.5. Marine 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. Demand management practices include non-asset solutions, insuring against risks and managing failures.