Redland
CITY COUNCIL

MINUTES

GENERAL MEETING

Wednesday, 15 September 2021

The Council Chambers
91 - 93 Bloomfield Street
CLEVELAND QLD

Order Of Business

GENERAL MEETING
HELD AT THE COUNCIL CHAMBERS, 91 - 93 BLOOMFIELD STREET, CLEVELAND QLD
ON WEDNESDAY, 15 SEPTEMBER 2021 AT 9.30AM

1 DECLARATION OF OPENING

The Mayor declared the meeting open at 9:30am and acknowledged the Quandamooka people, who are the traditional custodians of the land on which Council meets.

The Mayor also paid Council's respect to their elders, past and present, and extended that respect to other indigenous Australians who were present.

2 RECORD OF ATTENDANCE AND LEAVE OF ABSENCE

MEMBERS PRESENT: Cr Karen Williams (Mayor), Cr Wendy Boglary (Division 1), Cr Peter Mitchell (Division 2), Cr Paul Gollè (Division 3), Cr Lance Hewlett (Division 4), Cr Mark Edwards (Division 5), Cr Julie Talty (Deputy Mayor and Division 6), Cr Rowanne McKenzie (Division 7), Cr Tracey Huges (Division 8), Cr Adelia Berridge (Division 9), Cr Paul Bishop (Division 10)

EXECUTIVE LEADERSHIP TEAM: Andrew Chesterman (Chief Executive Officer), John Oberhardt (General Manager Organisational Services), Louise Rusan (General Manager Community & Customer Services), Group Manager City Assets, Bradley Salton (proxy for General Manager Infrastructure & Operations), Deborah Corbett-Hall (Chief Financial Officer), Andrew Ross (General Counsel).

MINUTES: Natalie Merlehan (Corporate Meetings & Registers Coordinator)

LEAVE OF ABSENCE

Nil

COUNCILLOR ABSENCES DURING THE MEETING

Cr Tracey Huges entered the meeting at 9:31am (during Item 1)

Cr Paul Bishop left the meeting at 10:08am and returned at 10:20am (during Item 6)

Cr Julie Talty left the meeting at 10:39am and returned at 10:42am (during Item 9)

Cr Tracey Huges left the meeting at 10:49am and returned at 10:53am (during item 13.1)

Cr Peter Mitchell left the meeting at 10:50am and returned at 10:53am (during item 13.1)

Cr Paul Bishop left the meeting at 10:57am before Item 14.1 and returned at 11:19am (before Item 15.1)

Cr Wendy Boglary left the meeting at 11:19am and returned at 11:21am (during Item 15.1)

Cr Rowanne McKenzie left the meeting at 11:21am and returned at 11:24am (during Item 15.1)

Cr Paul Gollè left the meeting at 11:22am and returned at 11:26am (during Item 15.1)

3 DEVOTIONAL SEGMENT

Pastor Peter Grieve of C3 Redland Bay, also a member of the Minister's Fellowship led Council in a brief Devotional segment.

4 RECOGNITION OF ACHIEVEMENT

4.1 REDLANDS COAST OLYMPIANS AND PARALYMPIANS ACHIEVEMENTS

Mayor Karen Williams recognised the Redlands Coast athletes who represented Australia with distinction at the 2020 Tokyo Olympic and Paralympic Games:

Our community is proud of the athletes for not only their prowess on the sporting fields and venues of Tokyo, but also for the fairness and respect that they displayed during competition.

They gave us some thrilling moments and some real insights into the determination and dedication required to be such elite athletes, not to mention a number of medals which are coming home to the Redlands Coast.

Para-swimming team members, Paige Leonhardt, who was acknowledged earlier this year as a Redlands Coast recipient of an Australia Day award, from Thornlands, and Jake Michel from Birkdale, who both won silver.

Paige, 20, brilliantly bagged her silver medal in the 100m butterfly final and gave her all to finish sixth in the 100m breaststroke and 200m individual medley finals.

Jake, 23, scored a silver medal in his one and only event, the men's 100m breaststroke. It took a world record by a Japanese opponent to relegate Jake narrowly to second place.

Earlier, former long-time Redlands Coast local Melissa Wu again showed her amazing ability as a diver, bringing home a bronze medal in the women's 10m platform final at the 2020 Tokyo Olympic Games.

I would also like to acknowledge BMX freestyler Logan Martin who has been a familiar face around Redland Bay where he has trained for many years and made history to become the first men's BMX freestyle gold medalist.

Other Redlands Coast athletes at the 2020 Tokyo Olympics included:

- *Mara Stransky of Russell Island who finished 14th in the Women's Laser Radial class.*
- *Cassiel Rousseau of Ormiston showed promise in the men's diving 10m platform, finishing 8th in the final.*
- *Taylor Worth of Birkdale made it to round 16 in the men's archery individual event.*
- *Alannah Mathews of Sheldon competed as part of the five-member rhythmic gymnastics group.*
- *Shannon Parry of Cleveland was part of the women's rugby sevens squad who unfortunately were unable to replicate their gold medal win in Rio 2016, losing to Fiji in the quarter finals.*
- *Emily Gielnik of Alexandra Hills was part of the Matildas Olympic squad who made it to the semi-finals and narrowly missed bringing home a bronze medal.*

The athletes' achievements were another reminder of the level of excellence being reached by sporting clubs right across Redlands Coast. Well done to all the coaches, supporters and, of course, the families who have helped these athletes to do us proud. Just imagine the long list of athletes we will have when we get to 2032 being able to be a host of a venue at the Olympics for Brisbane. It is very exciting that we can get to build on that list from the legacy of these people.

4.2 STAR COMMUNITY SERVICES

Mayor Karen Williams also recognised STAR Community Services 25th Anniversary:

Since their formation in 1996 STAR has come a long way. This month marks 25 years of wonderful contribution to the Redlands Coast community.

STAR is one of the most readily recognisable community organisations on Redlands Coast and one that continues to play a vital role in our community.

General Manager Patsy Wilshire and her management team and the STAR Board can certainly be proud of their achievements to date, and their ongoing role in improving the quality of life particularly for our elderly and disabled residents.

In 1996 the then Redland Shire Council recognised that a large percentage of older people and people with disabilities in the Redlands were without convenient and affordable transport services. In response, the Special Transport Assistance Redlands Association Incorporated – or STAR - was established.

Boasting an original 10 drivers and three office staff, the aim was to provide a quality, affordable transport service locally. STAR has been doing this and so much more for the past 25 years. They have touched thousands of families and made life that little better for many thousands of seniors and disabled residents by helping support them in their homes and fighting social isolation.

STAR's statistics are impressive:

- *Provides transport and care services to more than 8500 community members, with the support of almost 200 volunteers.*
- *They have a fleet of 73 vehicles supporting those with limited transport options*
- *Have performed more than 1.4 million trips to help community members on Redlands Coast and Ipswich enjoy an independent life*
- *Through Volunteering Redlands, STAR supports an ever-growing community of 800 volunteers*
- *Provides National Disability Insurance Scheme, Disability Support and aged care services*
- *In addition to Redlands Coast, STAR now services other areas including Logan City, Gold Coast, Darling Downs and Ipswich.*

Today STAR allows residents to enjoy the comforts of their own home while benefiting from care packages and support planned and delivered by expert care coordinators.

If the true measure of a community is how it cares for its most vulnerable then Redlands Coast measures highly indeed and that is thanks in part to the dedication, compassion and friendly smiles of all of those involved with STAR Community Services.

For 25 years, they really have shone among our brightest of stars and thoroughly deserve our community's heartfelt gratitude for making such a difference. Well done to STAR and thank you.

4.3 HEAR HERE

Mayor Karen Williams also recognised an initiative of Council the Hear Here Program:

When the Redland City Council undertook its Age Friendly City survey in 2018, we found that hearing loss was a significant barrier for older people to participate in our community.

We set out to help overcome this by ensuring our frontline service officers had the training and the tools to better communicate with and help people experiencing hearing loss.

Late last year, Council approached Better Hearing Australia, Brisbane and the Council of the Ageing, Queensland to develop, implement and distribute the Hear Here Council e-Learning Training Package which is a workforce learning module to improve local government's communication with customers affected by hearing loss.

Through this collaboration, the training package is now available to all 77 Councils across Queensland.

Funding for the program came from the Queensland Department of Communities, Disability Services and Seniors' Advancing Queensland Age-friendly Community Grants Program, with additional contributions from the project partners.

The Hear Here training package was guided by the lived experiences of residents with hearing loss and Council officers in a variety of customer service roles to ensure it accurately reflected typical scenarios in a local government setting.

The training was piloted at Redland City Council for four weeks, with 46 officers from the Integrated Customer Contact Centre, Redland City Libraries, Redland Performing Arts Centre and the Community Development Team being tested and evaluated.

All participants reported increased awareness and understanding of hearing loss, knowledge of communication techniques, and improved ability to communicate effectively.

The Hear Here package now forms part of Redland City Council's corporate training program and is available to all staff, as part of our commitment to becoming a better age-friendly city, where older people and others with hearing loss can be confident they can engage with Council services effectively. We certainly do not want any of our residents to feel isolated.

The work of Council's Community and Economic Development Group, especially Christine Potito who has been instrumental in imagining, collaborating and bringing this program to life has seen Hear Here recognised through being a finalist in the collaboration category at the LGMA Awards Queensland Awards for Excellence 2021.

Congratulations to Better Hearing Australia Brisbane, the Council of the Ageing and Christine for making a difference to not only our Redlands Coast community, but to local government areas across Queensland.

It is a particularly important time for us to be aware of this particularly as we are all wearing masks and how hard it is for those with hearing loss to participate in conversations in a pandemic worlds. So, congratulations to all involved.

4.4 ANN THOMPSON

Councilor Julie Talty recognised and gave condolences to Ann Thompson a motorsport pioneer:

Redlands Coast and the motorsport world is mourning the recent passing of racing legend and well-known local resident Ann Thomson.

Ann was part of the MG Car Club which is the parent club behind the Queensland Hillclimb facility in Mount Cotton. That facility has been holding national events for Australia and is recognised as one of the best Hillclimb facilities in the Country since 1968. Ann was a pioneer member of the MG Car Club and helped get that facility up and running.

Ann was a motorsport pioneer who led the way for other women to follow, as well as being a founding member of the MG Car Club of Queensland and a driving force behind the Mount Cotton and Queensland Hillclimb Championships, held on the Gramzow Road course at Mount Cotton.

She had a lifelong interest in and love of motor racing and in 2008 became just the second woman to be awarded life membership of the Confederation of Australian Motor Sport for her remarkable and exemplary service to the sport.

Ann did it all, both in and for Australian motor sport. She acquired her CAMS racing licence in 1956 and quickly gained the respect of her fellow competitors. Her stable of racing cars included a MGTC, Morgan+4, Healey BN2, Lotus 15, genuine racing Lotus Elan - one of only a few in Australia at the time – and a Cooper S.

Ann regularly competed at various east coast circuits, including Bathurst in 1969.

Renowned for her talent as a driver, she was also an active rally competitor in Mini, Cortina, Morris, Marina and XU1, to name a few, as well as a Holden Kingswood in the 1970 Round Australia Rally.

Somehow Ann also found the time to officiate as the clerk of the course for several State Championship Rallies and as a course checker for ARC events.

But her talent, expertise and experience were not limited to motor sport competition. An experienced businessperson, she served CAMS as its Queensland treasurer in the 1960s and later as assistant State Secretary. She was a State Councillor of CAMS for an amazing 38 years.

But of all her achievements Ann is known best locally for her involvement in creating, in conjunction with the MG Car Club of Queensland, the Mount Cotton Hillclimb, which is arguably the best Hillclimb venue in Australia.

Part of the course was located on Ann's property. Her ongoing support for the sport was such that she gifted her lot to the club in 2018.

While Ann's competition days were behind her in recent years, she continued to attend the Hillclimb for presentations.

It is planned to hold the Australian Hillclimb Championships at the Mount Cotton course next month, pandemic allowing.

Ann will not be there physically, but she will be there in spirit, urging on the competitors.

Ann was 97 when she passed. She will be sadly missed not just by the motorsport family, but by the Redlands Coast community.

Thank you Ann.

4.5 LIVE AND LOCAL – REDLANDS PERFORMING ARTS CENTRE

Cr Paul Bishop acknowledged the Live and Local Program at the Redlands Performing Arts Centre:

Last night, along with Councillor Wendy Boglary and Councillor Peter Mitchell, I attended the Live and Local Program at the Redlands Performing Arts Centre which celebrated local artists and musicians from across the Redlands, collaborating in partnership with local venues and businesses, with support by QMusic, through their Creative Alliance Live Music office and the Chamber of Commerce.

Live and Local is a COVID response to the difficulties artists have experienced and was an opportunity for them to find meaningful places where they can perform and be paid to bring value to the community. To have this supported by Council staff and the Live and Local Program is an example of the kind of collaboration which will get us through the pandemic, the kindness that is assisting artists who have been going through a difficult time whilst also adding meaningful engagement opportunities for people who come to local venues and want to support local talent.

This program allows for wonderful networking and collaboration opportunities across the Redlands and it was wonderful to see local businesses including The Bench at Cleveland and The Grandview Hotel, represented along with Craig Luxton from Birkdale. It was wonderful to see such healthy engagement and support by our officers. Thank you.

5 RECEIPT AND CONFIRMATION OF MINUTES

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/208

Moved by: **Cr Peter Mitchell**
Seconded by: **Cr Paul Gollè**

That the minutes of the General Meeting held on 18 August 2021 be confirmed.

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

6 DECLARATION OF PRESCRIBED CONFLICT OF INTERESTS AND DECLARABLE CONFLICT OF INTERESTS

6.1 DECLARABLE CONFLICT OF INTEREST – CR PAUL BISHOP

Councillor Paul Bishop declared a Declarable Conflict of Interest in Item 14.1 *Willard's Farm - State Heritage Listing Application*, stating that he has advocated on behalf of the community and its desire to uphold matters of potential heritage, cultural heritage and environmental significance associated with these lots and the unique property. Cr Bishop also stated that he informed the Birkdale Progress Association, who made an application for State Heritage Listing, and that he subsequently made two submissions and an oral presentation to the Queensland Heritage Council in support of the Heritage Listing. Councillor Bishop also stated that over the years he has recorded and shared an array of content by people associated with this site at his own expense.

Councillor Bishop considered his position and was firmly of the opinion that he could participate in the discussion and vote on the matter in the public interest at both future Statutory and Non-Statutory Meetings of Council.

A motion was put as follows:

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/209

Moved by: **Cr Wendy Boglary**
Seconded by: **Cr Peter Mitchell**

That Councillor Paul Bishop may participate in the meeting in relation to Item 14.1, including voting on the matter.

LOST 6/4

Crs Wendy Boglary, Lance Hewlett, Tracey Huges and Adelia Berridge voted FOR the motion.

Crs Peter Mitchell, Paul Gollè, Mark Edwards, Julie Talty, Rowanne McKenzie and Karen Williams, voted AGAINST the motion.

Cr Paul Bishop did not participate in the vote.

The motion was LOST as Council was of the opinion that Councillor Bishop had a greater interest in the matter than that of other people in the local government area.

6.2 DECLARABLE CONFLICT OF INTEREST – CR WENDY BOGLARY

Councillor Wendy Boglary declared a Declarable Conflict of Interest in Item 14.1 *Willard's Farm - State Heritage Listing Application*, stating that in 2020 she put through a submission in relation to these properties being added to the State Heritage Register.

Councillor Boglary considered her position and was firmly of the opinion that she could participate in the discussion and vote on the matter in the public interest at both future Statutory and Non-Statutory Meetings of Council.

A motion was put as follows:

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/210

Moved by: **Cr Lance Hewlett**
Seconded by: **Cr Mark Edwards**

That Councillor Wendy Boglary may participate in future Statutory Meetings (including voting on the matter) and Non-Statutory and Informal Meetings in relation to Item 14.1 Willard's Farm State Heritage Listing Application.

CARRIED 7/2

Crs Karen Williams, Peter Mitchell, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie and Adelia Berridge voted FOR the motion.

Crs Paul Gollè and Tracey Huges voted AGAINST the motion.

Cr Paul Bishop was not present when the motion was put.

Cr Wendy Boglary did not participate in the vote.

The motion was CARRIED as Council was of the opinion that Councillor Boglary had no greater interest in the matter than that of other people in the local government area.

7 MATTERS OUTSTANDING FROM PREVIOUS COUNCIL MEETINGS

7.1 OUTCOMES OF ECONOMIC NEEDS ASSESSMENT - SHORT STAY FACILITIES FOR SELF-CONTAINED RECREATIONAL VEHICLES AND CARAVANS ON THE REDLANDS COAST

At the General Meeting 19 May 2021 (Item 15.2 refers), Council resolved as follows:

1. *To note the contents of the report including the executive summary of the Economic Needs Assessment at Attachment 1.*
2. *To endorse Council's role as facilitator or advocate for the establishment of ~~a~~ short stay facilities for self-contained recreational vehicles and caravans.*
3. *To invite Expressions of Interest in accordance with s.228 of the Local Government Regulation 2012 from community or not-for-profit organisations to operate and manage a short stay facility for self-contained recreational vehicles and caravans for Council owned or managed land identified as preferred sites within the report.*
4. *That a report be brought back to Council outlining the outcomes of the Expressions of Interest process.*
5. *To continue to support and work with existing commercial campground and caravan park operators.*

A report will be brought to a future meeting of Council.

7.2 EXPRESSIONS OF INTEREST CAMPAIGN - REDLANDS COAST TOURIST AND COMMUNITY DESTINATION, MACARTHUR ST, ALEXANDRA HILLS

At the General Meeting 2 December 2020 (Item 19.2 refers), Council resolved as follows:

That Council resolves as follows:

1. *To note the outcomes of the Expressions of Interest Campaign for a Tourist Park and associated community uses that has now finished, and that no tourism-related proposals were received.*
2. *To hold discussions with proponents of non-tourism related purposes to understand how other proposals may fit into the planning for development of the land that align with Council's policies and plans.*
3. *To workshop with Councillors, the outcome of these discussions.*
4. *To provide a further report to Council in regards to the site upon completion of item 3 above.*
5. *That this report and attachments remain confidential to ensure proposed commercial arrangements and details pertaining to individuals are kept private, subject to maintaining the confidentiality of legally privileged and commercial in confidence information.*

A report will be brought to a future meeting of Council.

7.3 INVESTIGATIONS TO POTENTIALLY ACQUIRE ADDITIONAL LAND FOR SPORT AND RECREATION PURPOSES

At the General Meeting 18 December 2019 (Item 19.3 refers), Council resolved as follows:

That the petition be received and referred to the Chief Executive Officer for consideration and a report to the local government.

A report will be brought to a future meeting of Council.

7.4 NOTICE OF MOTION - MACLEAY ISLAND CAMP GROUND

At the General Meeting 18 August 2021 (Item 17.1 refers), Council resolved as follows:

That Council resolves as follows:

1. *That the Chief Executive Officer prepare a report to come back to Council by 15 December 2021 on the options for a proposed 12 month camping ground trial at 79 to 87 Coast Road, Sandpiper Beach, Macleay Island.*
2. *That the proposal is for a basic facility only catering for kayakers, mountain bikers and boaties with a maximum 3 day stay. The intention would be for a local community group to run the camping ground on behalf of Council.*
3. *That the report should consider planning scheme, local laws, risks and budget considerations.*

A report will be brought to Council by 15 December 2021.

8 MAYORAL MINUTE

Under section 6.9 of Council Meeting Standing orders, Mayor Karen Williams Moved the following:

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/211

Moved by: Cr Karen Williams

That Council resolves as follows:

1. **To write to the State Government and Seqwater and request that they support Council's existing concealed leaks policy by implementing a concealed leaks policy and associated processes to cover the State Government's bulk water component of water consumption in Redland City.**
2. **To seek support for the policy change from Redlands Coast Members of Parliament. Through a petition seeking public support to State Parliament to be published on Council's website and shared through media.**
3. **To request that any decision by the Government to provide a concealed leaks rebate be conveyed to Council by February 2022, to allow time for Council 2022-23 Budget deliberations.**
4. **Subject to the State Government implementing a bulk water rebate, Council considers any policy change to complement the State's bulk water rebate to further assist ratepayers.**

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

BACKGROUND

Redland City Council rates notices currently include a total cost for bulk water and distribution to ratepayers. The total is made up of State Government (bulk water) and Council (distribution) charges.

Council's component of the water charge on the rate notice (for distribution and retail) is 16.3 per cent for residential customers, with State Government bulk water costs comprising the remaining 83.7 per cent. Council acts as an agent for the State in collecting the 83.7 per cent State component and returning it to the State Government.

For residential properties the current total water price per kilolitre is $3.860, comprising:

- Council retail water price = $0.629 per kilolitre
- State bulk water price = $3.231 per kilolitre

Council regularly receives requests from ratepayers who have received higher rates notices because of the extra costs of increased water consumption caused by concealed leaks on their properties.

Council currently has a Concealed Leaks Policy as required under Section 19 of the *South East Queensland Customer Water and Wastewater Code*.

A residential customer can apply for a concealed leak remission (adjustment) on the Council component of the water charge and, if approved, an adjustment will be made to their rate account, which will appear as a line item on their next notice.

Currently the State Government does not have a policy to reimburse its bulk water costs to residents who have experienced a concealed leak. This is despite State-imposed bulk water charges increasing more than 10 per cent in the past two years and more than doubling since 2012. Council must by law pass on these costs to residents.

Council does not provide a remission on the State Government's bulk water consumption charge, believing that to be the responsibility of the State.

This Mayoral Minute is seeking a collaboration with the State Government by supporting a new State Government bulk water concealed leaks policy.

Since 2018, Council has unsuccessfully advocated to the State Government, calling on it to implement a reimbursement policy covering bulk water costs similar to that made available by Council.

9 PUBLIC PARTICIPATION

MOTION TO ADJOURN MEETING AT 10:34AM

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/212

Moved by: **Cr Paul Bishop**
Seconded by: **Cr Wendy Boglary**

That Council adjourn the meeting for a 15 minute public participation segment.

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

1. Ms Vicki Salisbury of Ormiston addressed Council regarding the details, logistics and environmental consequences of building a multi-million dollar development on Ramsar listed wetlands at Toondah Harbour.
2. Mr Raymond Davis of Redland Bay addressed Council regarding the public consultation and possible changes to the number of dogs allowed in the Redlands.

MOTION TO RESUME MEETING AT 10:50AM

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/213

Moved by: **Cr Mark Edwards**
Seconded by: **Cr Peter Mitchell**

That the meeting proceedings resume.

CARRIED 10/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Adelia Berridge and Paul Bishop voted FOR the motion.

Cr Tracey Huges was not present when the motion was put.

10 PETITIONS AND PRESENTATIONS

10.1 PETITION CR WENDY BOGLARY - TO IMPLEMENT A BAN ON ACCESS TO NEW HOUSING ESTATE FRANCIS STREET, ORMISTON

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/214

Moved by: **Cr Wendy Boglary**
Seconded by: **Cr Mark Edwards**

That the petition is of an operational nature and be received and referred to the Chief Executive Officer for consideration.

CARRIED 9/0

Crs Karen Williams, Wendy Boglary, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Adelia Berridge and Paul Bishop voted FOR the motion.

Crs Peter Mitchell and Tracey Huges were not present when the motion was put.

10.2 PETITION CR WENDY BOGLARY – TOONDAH HARBOUR, COMMUNITY ENGAGEMENT AND DEVELOPMENT IN RAMSAR WETLANDS

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/215

Moved by: **Cr Wendy Boglary**
Seconded by: **Cr Mark Edwards**

That the petition is of an operational nature and be received and referred to the Chief Executive Officer for consideration.

CARRIED 9/0

Crs Karen Williams, Wendy Boglary, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Adelia Berridge and Paul Bishop voted FOR the motion.

Crs Peter Mitchell and Tracey Huges were not present when the motion was put.

11 MOTION TO ALTER THE ORDER OF BUSINESS

Nil

12 REPORTS FROM THE OFFICE OF THE CEO

Nil

13 REPORTS FROM ORGANISATIONAL SERVICES

13.1 AUGUST 2021 MONTHLY FINANCIAL REPORT

Objective Reference: **A5672804**

Authorising Officer: **Deborah Corbett-Hall, Chief Financial Officer**

Responsible Officer: **Deborah Corbett-Hall, Chief Financial Officer**

Report Author: **Udaya Panambala Arachchilage, Corporate Financial Reporting Manager**

Attachments: **1. August 2021 Monthly Financial Report**

PURPOSE

To note the year to date financial results as at 31 August 2021.

BACKGROUND

Council adopts an annual budget and then reports on performance against the budget on a monthly basis. This is not only a legislative requirement but enables the organisation to periodically review its financial performance and position and respond to changes in community requirements, market forces or other outside influences.

ISSUES

Opening balances for 2021-22 financial year

The opening balances for the current financial year are still to be finalised and audited. As such, the financial position for the month of August may adjust over the coming months until Council receives Queensland Audit Office certification in September 2021.

Capital carryover budget 2020-21

Council adopted a carryover budget on 18 August 2021 to accommodate capital works straddling two financial years. The attached monthly financial report for August includes the carryover budget although as outlined above, the final audited 2020-21 balance sheet accounts will influence the opening balances and budgeted key performance indicators in 2021-22. Until the accounts have been finalised, the monthly financial report will reconcile to the financial management system.

Monitoring of the capital program progress

As mentioned in the risk management section below, the Executive Leadership Team reviews the progress of the capital program on a regular basis. Over the last eighteen months, the global pandemic has played a role in the procurement lead time, availability of contractors and price of materials. Constant focus, review and mitigation where possible is occurring by the organisation's senior leaders and these factors are considerations when management reviews the organisation risk registers.

STRATEGIC IMPLICATIONS

Council has either achieved or favourably exceeded the following key financial stability and sustainability ratios as at the end of August 2021. As this is only the first month of the year, trends will start to emerge as the first quarter progresses.

- Operating surplus ratio
- Net financial liabilities
- Level of dependence on general rate revenue
- Ability to pay our bills – current ratio
- Ability to repay our debt – debt servicing ratio
- Cash balance
- Cash balances – cash capacity in months
- Longer term financial stability – debt to asset ratio
- Operating performance
- Interest coverage ratio

The asset sustainability ratio did not meet the target at the end of August 2021 and continues to be a stretch target for Council with renewal spends of $1.98M and depreciation expense of $9.80M year to date on infrastructure assets. This ratio is an indication of how Council currently maintains, replaces and renews its existing infrastructure assets as they reach the end of their useful lives. Capital spend on non-renewal projects increases the asset base and therefore increases depreciation expense, resulting in a lower asset sustainability ratio.

Council's Capital Portfolio Prioritisation Administrative Directive demonstrates its commitment to maintaining existing infrastructure and the adoption of a renewal strategy for its existing assets ahead of 'upgrade' and/or 'new' works.

Legislative Requirements

The August 2021 financial report is presented in accordance with the legislative requirement of section 204(2) of the *Local Government Regulation 2012,* requiring the Chief Executive Officer to present the financial report to a monthly Council meeting.

Risk Management

The August 2021 financial report has been noted by the Executive Leadership Team and relevant officers who can provide further clarification and advice around actual to budget variances.

Financial

There is no direct financial impact to Council as a result of this report; however it provides an indication of financial outcomes at the end of August 2021.

People

Nil impact expected as the purpose of the attached report is to provide financial information to Council based upon actual versus budgeted financial activity.

Environmental

Nil impact expected as the purpose of the attached report is to provide financial information to Council based upon actual versus budgeted financial activity.

Social

Nil impact expected as the purpose of the attached report is to provide financial information to Council based upon actual versus budgeted financial activity.

Human Rights

There are no human rights implications for this report as the purpose of the attached report is to provide financial information to Council based upon actual versus budgeted financial activity.

Alignment with Council's Policy and Plans

This report has a relationship with the following items of Council's *Our Future Redlands – A Corporate Plan to 2026 and Beyond*:

Efficient and effective organisation objectives

7.1 Improve the efficiency and effectiveness of Council's service delivery to decrease costs, and enhance customer experience and community outcomes.

7.4 Demonstrate good governance through transparent, accountable processes and sustainable practices and asset management.

CONSULTATION

Consulted	Date	Comment
Council departmental officers	Year to date 31 August 2021	Consulted on financial results and outcomes
Financial Services Group officers	Year to date 31 August 2021	Consulted on financial results and outcomes
Executive Leadership Team and Senior Leadership Team	Year to date 31 August 2021	Recipients of variance analysis between actual and budget. Consulted as required

OPTIONS

Option One

That Council resolves to note the financial position, results and ratios for August 2021 as presented in the attached Monthly Financial Report.

Option Two

That Council resolves to request additional information.

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/216

Moved by: **Cr Mark Edwards**
Seconded by: **Cr Rowanne McKenzie**

That Council resolves to note the financial position, results and ratios for August 2021 as presented in the attached Monthly Financial Report.

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

Redland CITY COUNCIL

Monthly Financial Report

August 2021

CONTENTS

1. EXECUTIVE SUMMARY

This monthly report illustrates the financial performance and position of Redland City Council compared to its adopted budget at an organisational level for the period ended 31 August 2021. The year to date annual revised budget referred to in this report incorporates the changes from budget capital carryovers adopted by Council on 18 August 2021.

The opening balances for the current year are still to be finalised and audited. As such, the financial position for the month of August may adjust over the coming months until Council receives Queensland Audit Office (QAO) certification in September 2021.

Key Financial Highlights and Overview

Key Financial Results ($000)	Annual Revised Budget	YTD Budget	YTD Actual	YTD Variance	YTD Variance %	Status Favourable ✓ Unfavourable ✖
Operating Surplus / (Deficit)	43	20,291	**20,935**	644	3%	✓
Recurrent Revenue	310,942	68,267	**68,382**	115	0%	✓
Recurrent Expenditure	310,899	47,976	**47,447**	(529)	-1%	✓
Capital Works Expenditure	102,732	8,790	**7,844**	(946)	-11%	✓
Closing Cash & Cash Equivalents	196,457	233,731	**206,292**	(27,439)	-12%	✖

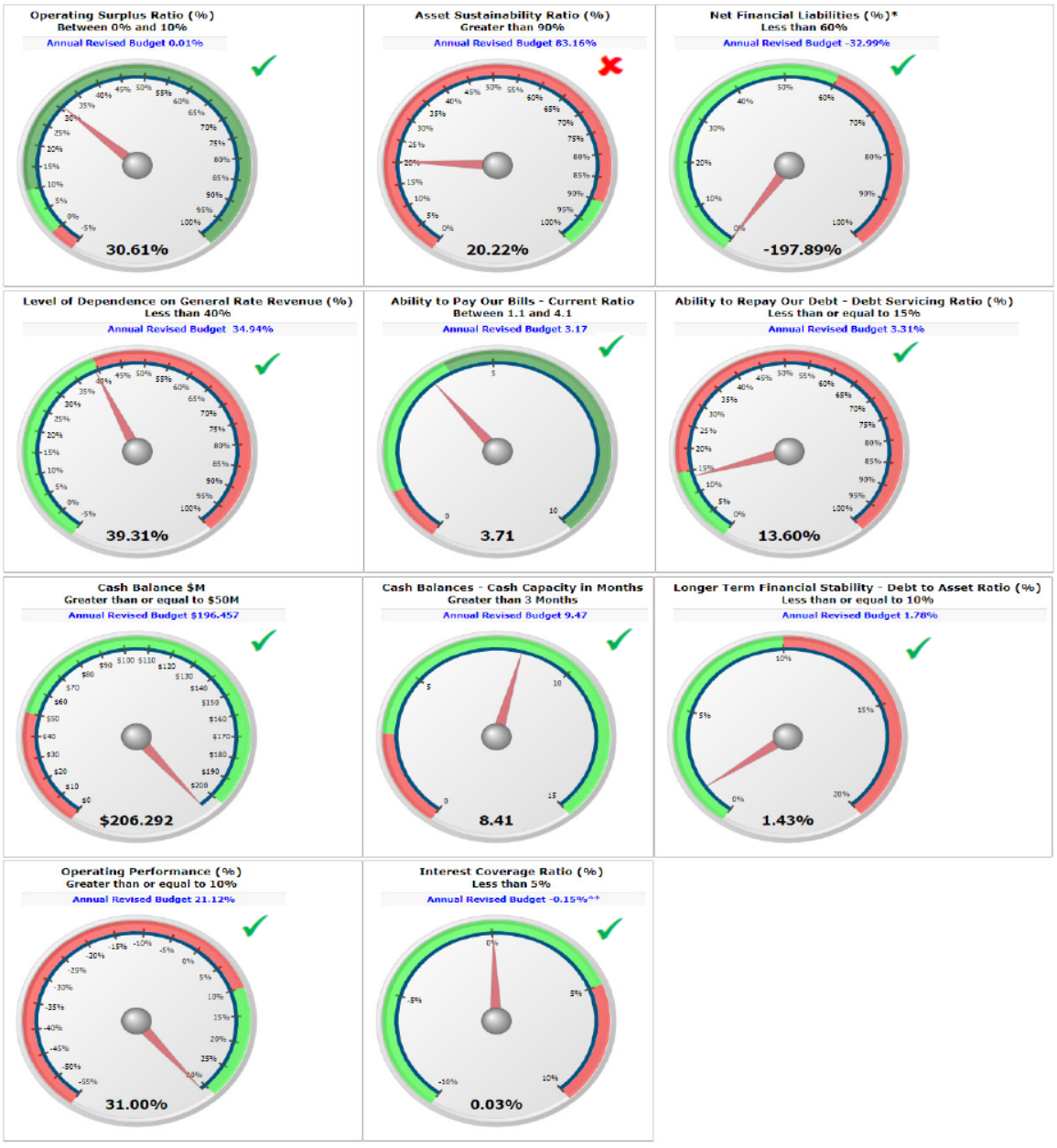
Council reported a year to date operating surplus of $20.93M which is favourable to budget by $644K due to less than budget recurrent expenditure resulting from a favourable variance in materials and services, as well as depreciation and ammortisation. As this is the second month of the year, trends will start to emerge as the first quarter progresses.

The Infrastructure and Operations (I&O) Department is actively monitoring the current FY 2021-22 capital works portfolio and have identified potential impacts leading to forecast underspend which may lead to increased carryover for FY 2022-23. Supply chain issues are currently being experienced, and material orders are being placed as soon as practicable. Market movements, trends and opportunities are being reviewed and monitored while mitigation strategies are developed to address identified risks. I&O will present a briefing to Council on the above mentioned strategies.

Council's cash balance is behind budget mainly due to higher than anticipated payments to suppliers and timing of rates collection. Constrained cash reserves represent 53% of the cash balance.

2. KEY PERFORMANCE INDICATORS

Target met Target exceeded Target not met



* The net financial liabilities ratio exceeds the target range when current assets are greater than total liabilities (and the ratio is negative)
** The interest coverage ratio exceeds the target range when interest revenue is greater than interest expense (and the ratio is negative)

3. STATEMENT OF COMPREHENSIVE INCOME

STATEMENT OF COMPREHENSIVE INCOME For the period ending 31 August 2021	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD **Actual** **$000**	YTD Variance $000
Recurrent revenue					
Rates charges	111,574	111,650	27,579	**27,645**	66
Levies and utility charges	170,378	170,378	35,189	**34,824**	(365)
Less: Pensioner remissions and rebates	(3,486)	(3,486)	(817)	**(859)**	(42)
Fees	15,337	15,337	2,877	**3,095**	218
Rental income	1,067	1,067	192	**203**	11
Interest received	2,037	2,037	326	**265**	(61)
Sales revenue	3,682	3,682	683	**824**	141
Other income	469	469	25	**92**	67
Grants, subsidies and contributions	9,496	9,808	2,213	**2,293**	80
Total recurrent revenue	310,554	310,942	68,267	**68,382**	115
Recurrent expenses					
Employee benefits	97,172	97,295	16,285	**16,457**	172
Materials and services	145,459	145,725	20,417	**20,132**	(285)
Finance costs	2,007	2,007	307	**312**	5
Depreciation and amortisation	67,563	67,563	11,261	**10,929**	(332)
Other expenditure	522	522	59	**13**	(46)
Net internal costs	(2,213)	(2,213)	(353)	**(396)**	(43)
Total recurrent expenses	310,511	310,899	47,976	**47,447**	(529)
OPERATING SURPLUS / (DEFICIT)	43	43	20,291	**20,935**	644
Capital revenue					
Grants, subsidies and contributions	22,133	28,638	2,975	**2,929**	(46)
Non-cash contributions	2,461	2,461	397	**-**	(397)
Total capital revenue	24,594	31,099	3,372	**2,929**	(443)
Capital expenses					
(Gain) / loss on disposal of non-current assets	289	289	5	**(294)**	(299)
Total capital expenses	289	289	5	**(294)**	(299)
TOTAL INCOME	**335,148**	**342,041**	**71,639**	**71,311**	**(328)**
TOTAL EXPENSES	**310,799**	**311,188**	**47,981**	**47,153**	**(828)**
NET RESULT	**24,349**	**30,853**	**23,658**	**24,158**	**500**
Other comprehensive income / (loss) **Items that will not be reclassified to a net result**					
Revaluation of property, plant and equipment	-	-	-	**-**	-
TOTAL COMPREHENSIVE INCOME	**24,349**	**30,853**	**23,658**	**24,158**	**500**

3. STATEMENT OF COMPREHENSIVE INCOME - CONTINUED

LEVIES AND UTILITY CHARGES ANALYSIS
For the period ending 31 August 2021

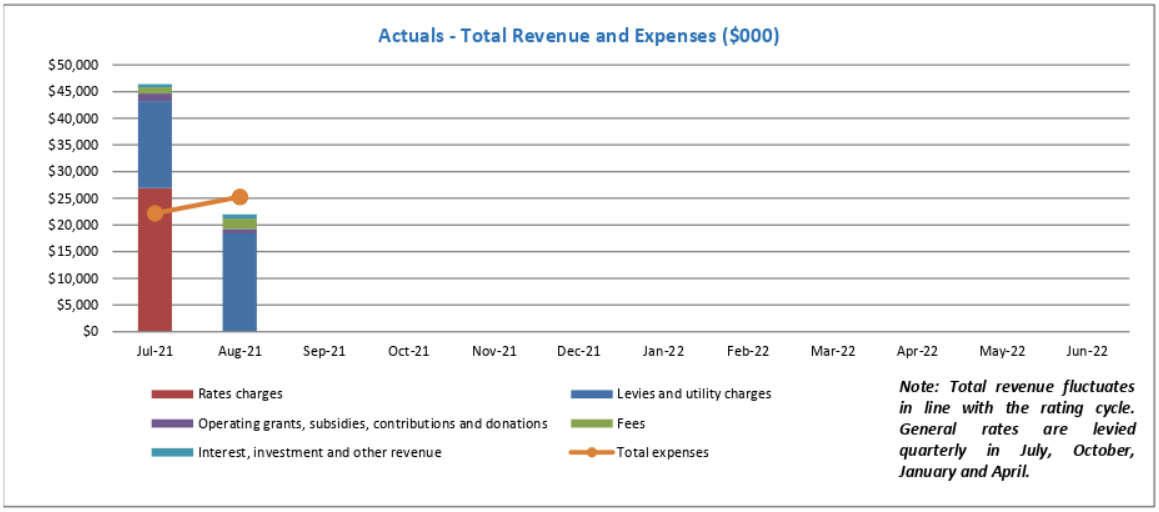
	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000	YTD Variance $000
Levies and utility charges					
Refuse collection rate charge	30,931	30,931	5,088	**5,138**	50
SES separate charge	514	514	128	**128**	-
Environment separate charge	10,802	10,802	2,601	**2,677**	76
Separate charge landfill remediation	3,473	3,473	927	**860**	(67)
Wastewater charges	50,354	50,354	12,376	**12,414**	38
Water access charges	20,949	20,949	5,208	**5,185**	(23)
Water consumption charges	53,355	53,355	8,861	**8,422**	(439)
Total levies and utility charges	**170,378**	**170,378**	**35,189**	**34,824**	**(365)**

MATERIALS AND SERVICES ANALYSIS
For the period ending 31 August 2021

	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000	YTD Variance $000
Materials and services					
Contractors	37,447	38,142	2,882	**3,579**	697
Consultants	2,775	3,030	280	**222**	(58)
Other Council outsourcing costs*	26,444	24,907	3,990	**3,632**	(358)
Purchase of materials	54,490	55,245	8,631	**8,124**	(507)
Office administration costs	7,194	7,195	2,019	**1,910**	(109)
Electricity charges	5,723	5,723	946	**927**	(19)
Plant operations	3,458	3,458	453	**441**	(12)
Information technology resources	3,685	3,665	603	**673**	70
General insurance	1,467	1,467	245	**246**	1
Community assistance**	1,716	1,836	258	**251**	(7)
Other material and service expenses	1,057	1,057	110	**127**	17
Total materials and services	**145,459**	**145,725**	**20,417**	**20,132**	**(285)**

** Other Council outsourcing costs are various outsourced costs including refuse collection and disposal, waste disposal, legal services, traffic control, external training, valuation fees, etc.*

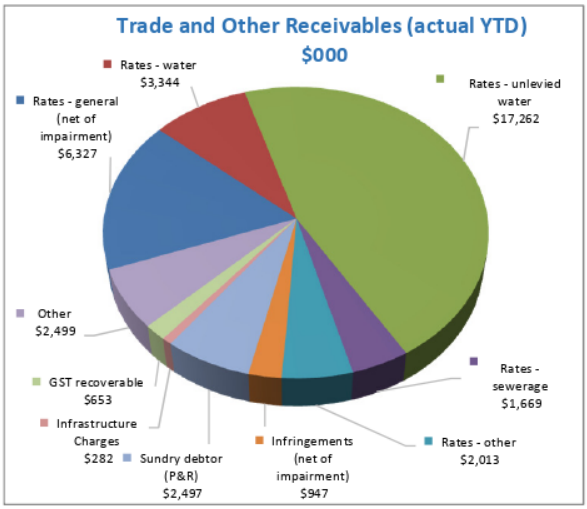
*** Community assistance costs represent community related costs including community grants, exhibitions and awards, donations and sponsorships.*

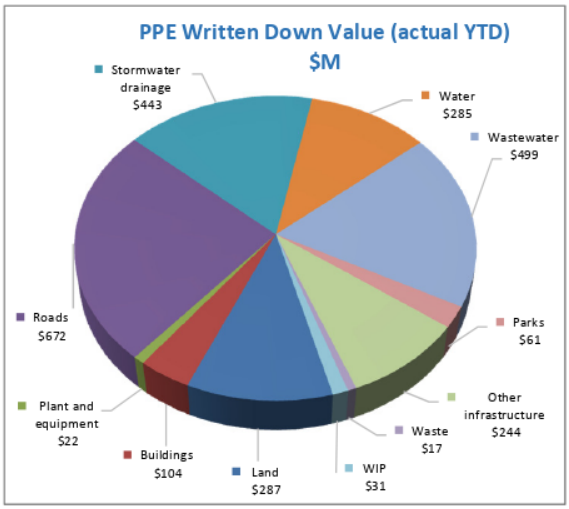


4. STATEMENT OF FINANCIAL POSITION

STATEMENT OF FINANCIAL POSITION As at 31 August 2021	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000
CURRENT ASSETS				
Cash and cash equivalents	198,990	196,457	233,731	**206,292**
Short-term investment - CBA	-	-	-	**10,000**
Trade and other receivables	42,672	43,012	44,841	**37,493**
Inventories	916	1,024	891	**898**
Other current assets	1,810	4,967	4,967	**4,376**
Total current assets	**244,389**	**245,460**	**284,430**	**259,059**
NON-CURRENT ASSETS				
Investment property	1,225	1,225	1,225	**1,225**
Property, plant and equipment	2,619,909	2,705,684	2,666,018	**2,664,925**
Intangible assets	1,135	1,160	1,612	**1,603**
Right-of-use assets	4,723	4,984	5,853	**5,852**
Other financial assets	73	73	73	**73**
Investment in other entities	12,657	12,657	12,657	**12,657**
Total non-current assets	**2,639,722**	**2,725,782**	**2,687,438**	**2,686,335**
TOTAL ASSETS	**2,884,111**	**2,971,242**	**2,971,868**	**2,945,394**
CURRENT LIABILITIES				
Trade and other payables	37,171	45,927	49,669	**31,905**
Borrowings - current	8,326	8,919	8,919	**8,919**
Lease liability - current	1,294	1,130	1,130	**1,130**
Provisions - current	15,270	15,791	16,785	**17,035**
Other current liabilities	1,911	5,758	20,530	**10,879**
Total current liabilities	**63,972**	**77,525**	**97,033**	**69,868**
NON-CURRENT LIABILITIES				
Borrowings - non-current	38,659	37,990	26,578	**26,500**
Lease liability - non-current	4,377	4,704	5,658	**5,567**
Provisions - non-current	21,539	22,676	21,446	**21,805**
Total non-current liabilities	**64,576**	**65,370**	**53,682**	**53,872**
TOTAL LIABILITIES	**128,547**	**142,895**	**150,715**	**123,740**
NET COMMUNITY ASSETS	**2,755,563**	**2,828,347**	**2,821,153**	**2,821,654**
COMMUNITY EQUITY				
Asset revaluation surplus	1,035,840	1,106,353	1,106,353	**1,106,353**
Retained surplus	1,619,513	1,623,314	1,608,890	**1,605,162**
Constrained cash reserves	100,210	98,681	105,910	**110,139**
TOTAL COMMUNITY EQUITY	**2,755,563**	**2,828,347**	**2,821,153**	**2,821,654**

4. STATEMENT OF FINANCIAL POSITION - CONTINUED





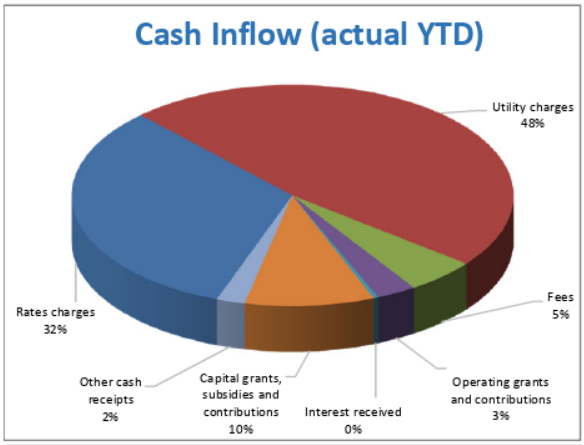
RIGHT-OF-USE ASSETS For the period ending 31 August 2021	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual Balance $000
Right-of-use asset				
Buildings	2,109	2,127	2,633	**2,635**
Land	2,435	2,533	2,859	**2,856**
Plant and Equipment	179	324	361	**361**
Closing balance	**4,723**	**4,984**	**5,853**	**5,852**

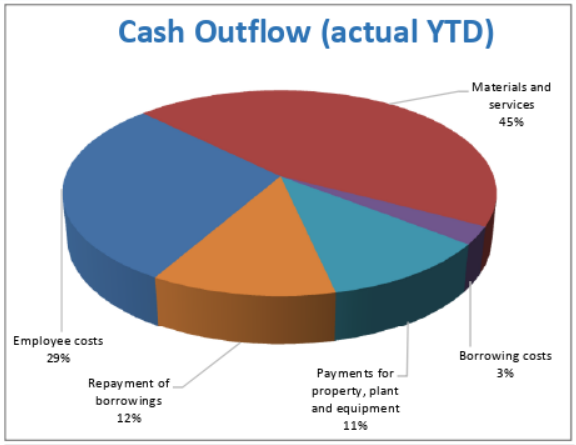
PROPERTY, PLANT AND EQUIPMENT (PPE) MOVEMENT* For the period ending 31 August 2021	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual Balance $000
PPE movement				
Opening balance (includes WIP from previous years)	2,614,439	2,667,979	2,667,979	**2,667,979**
Acquisitions and WIP in year movement	72,958	105,193	9,187	**7,844**
Depreciation in year	(65,977)	(65,977)	(10,996)	**(10,653)**
Disposals	(1,511)	(1,511)	(152)	**(245)**
Closing balance	**2,619,909**	**2,705,684**	**2,666,018**	**2,664,925**

** This table includes movement relating to property, plant and equipment only and is exclusive of intangible assets.*

5. STATEMENT OF CASH FLOWS

STATEMENT OF CASH FLOWS For the period ending 31 August 2021	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000
CASH FLOWS FROM OPERATING ACTIVITIES				
Receipts from customers	297,941	298,017	81,616	**68,348**
Payments to suppliers and employees	(246,606)	(246,995)	(32,939)	**(47,293)**
	51,334	**51,022**	**48,677**	**21,055**
Interest received	2,037	2,037	326	**266**
Rental income	1,067	1,067	192	**202**
Non-capital grants and contributions	14,109	14,421	2,073	**2,319**
Borrowing costs	(1,763)	(1,763)	(1,730)	**(1,769)**
Right-of-use assets interest expense	(131)	(131)	(22)	**(21)**
Net cash inflow / (outflow) from operating activities	**66,654**	**66,654**	**49,516**	**22,052**
CASH FLOWS FROM INVESTING ACTIVITIES				
Payments for property, plant and equipment	(70,498)	(102,732)	(8,790)	**(7,035)**
Proceeds from sale of property, plant and equipment	1,222	1,222	147	**539**
Capital grants, subsidies and contributions	22,133	28,638	2,975	**7,508**
Other cash flows from investing activities*	3,500	3,500	-	**3,500**
Net cash inflow / (outflow) from investing activities	**(43,642)**	**(69,372)**	**(5,668)**	**4,512**
CASH FLOWS FROM FINANCING ACTIVITIES				
Proceeds of borrowings	10,324	10,324	-	**-**
Repayment of borrowings	(7,243)	(7,243)	(7,166)	**(7,230)**
Right-of-use lease payment	(1,145)	(1,145)	(191)	**(282)**
Net cash inflow / (outflow) from financing activities	**1,936**	**1,936**	**(7,357)**	**(7,512)**
Net increase / (decrease) in cash held	**24,947**	**(782)**	**36,491**	**19,052**
Cash and cash equivalents at the beginning of the year	174,043	197,240	197,240	**187,240**
Cash and cash equivalents at the end of the financial year / period	**198,990**	**196,457**	**233,731**	**206,292**



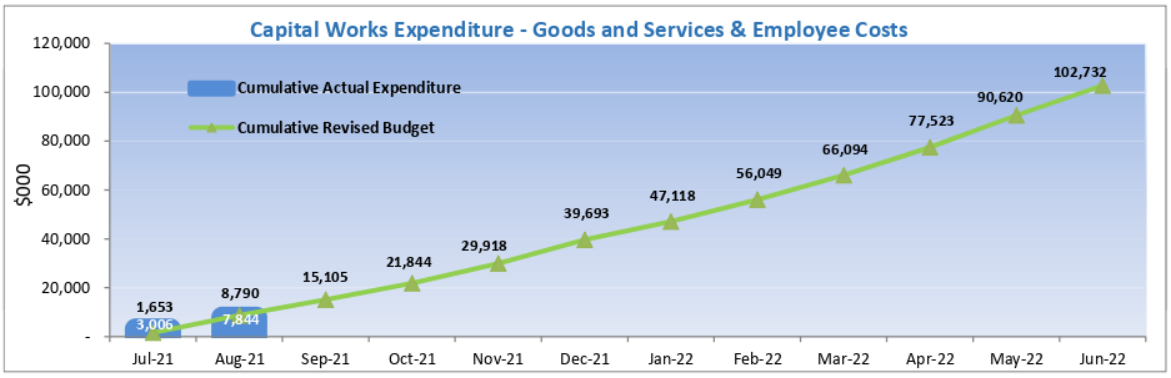


Total Cash Funding (Actual YTD)	**82,682**
Total Cash Funding (Annual Revised Budget)	359,226
% of Budget Achieved YTD	23%

Total Cash Expenditure (Actual YTD)	**63,630**
Total Cash Expenditure (Annual Reised Budget)	360,008
% of Budget Achieved YTD	18%

** Loan drawn down by RIC from February to June 2021 has been repaid in July 2021.*

6. CAPITAL EXPENDITURE

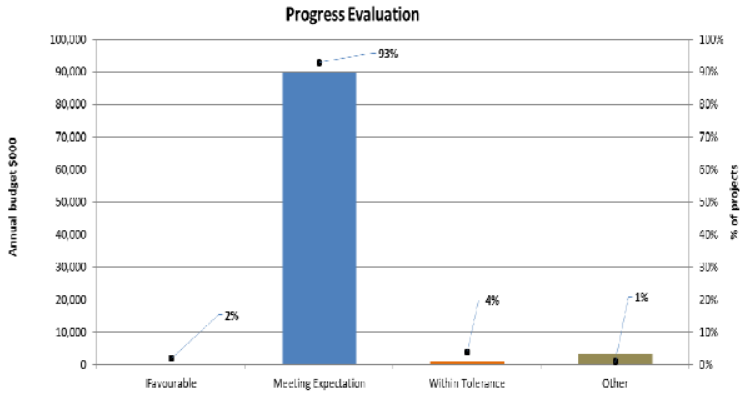


	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000	YTD Variance $000
Capitalised goods and services*	95,085	7,218	**6,532**	(686)
Capitalised employee costs	7,647	1,572	**1,312**	(260)
Total	**102,732**	**8,790**	**7,844**	**(946)**

** Excludes capital prepayments..*

7. PROGRAM AND PROJECT UPDATE

Favourable (budget under/schedule on track)	Meeting expectations (budget and schedule on track)	Within tolerance (either budget and schedule not on track)	Other (Schedule to be tracked)



Programs and projects are what Council uses to introduce change to achieve corporate outcomes. They allow new infrastructure, products, systems, procedures and services to be delivered. Projects may be undertaken on a standalone basis or as part of a program. Programs and projects may span multiple financial years.

Council is currently progressing more than 100 programs and projects.

Notable Projects

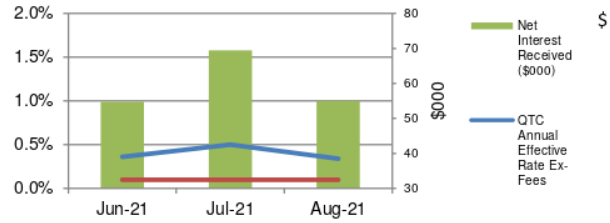
The status of two notable projects are as follows:

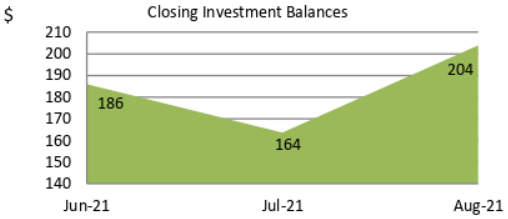
Project description	Progress
Sewerage Pump Station Wet Well Renewal Program - This program will renew various wet wells at different locations in the Redland City Council.	Meeting Expectations
Sewerage Pump Station #134 (Eastern end of Hardwood Drv, Mt Cotton) - This project will design Replacement of PVC Rising Mains for pumping station # 134.	Meeting Expectations

8. INVESTMENT & BORROWINGS REPORT

For the period ending 31 August 2021

INVESTMENT RETURNS - QUEENSLAND TREASURY CORPORATION (QTC)





Total QTC Investment at End of Month was $203.87M

Council investments are currently held predominantly in the Capital Guaranteed Cash Fund, which is a fund operated by the Queensland Treasury Corporation (QTC). In October 2020 $10M was invested in a term deposit of Commonwealth Bank of Australia (CBA) to maximise interest earnings.

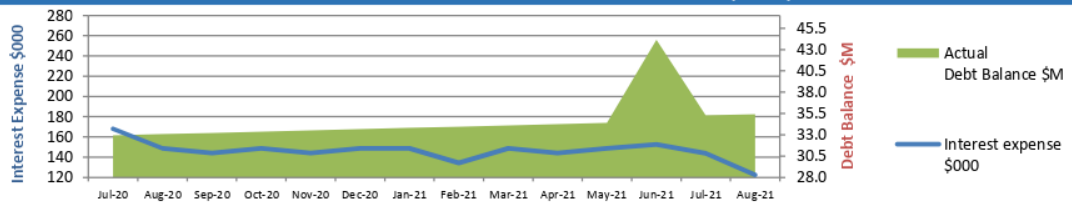
The movement in interest earned is indicative of both the interest rate and the surplus cash balances held, the latter of which is affected by business cash flow requirements on a monthly basis as well as the rating cycle.

Note: the Reserve Bank reduced the cash rate down to 0.10% during November 2020.

On a daily basis, cash surplus to requirements is deposited with QTC to earn higher interest as QTC is offering a higher rate than what is achieved from Council's transactional bank accounts. The current annual effective interest rate paid by QTC is 0.34%. Term deposit rates are being monitored to identify investment opportunities to ensure Council maximises its interest earnings.

Council adopted its Investment Policy (FIN-001-P) in June 2021 for the 2021/2022 financial year

BORROWINGS AND BORROWING COSTS (QTC)



The existing loan accounts were converted to fixed rate loans on 1 April 2016 following a QTC restructure of loans and policies. In line with Council's debt policy, debt repayment of $9.00M, being $7.23M principal and $1.77M interest has been made *annually* for 2021/2022 which will result in the loans being repaid approximately one year earlier.

The debt balance shows a decrease as the Annual Debt Service Payment (ADSP) was made during July 2021. Interest will accrue monthly on a daily balance until next ADSP in July 2022 which is reflected in the increasing debt balance.

In June 2021 borrowings of $9.61M were undertaken as part of Council's Capital Works Plan.

Total Borrowings at End of Month were $35.42M

Council adopted its Debt Policy (FIN-009-P) in June 2021 for the 2021/2022 financial year

BORROWINGS
For the period ending 31 August 2021

	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD **Actual Balance $000**
Borrowings				
Opening balance	(44,228)	(44,153)	(44,153)	**(44,153)**
Accrued interest on borrowings	(1,439)	(1,438)	(240)	**(265)**
Interest paid on borrowings	1,763	1,763	1,730	**1,769**
Principal repaid	7,243	7,243	7,166	**7,230**
Loan drawdown	(10,324)	(10,324)	-	**-**
Closing balance	**(46,985)**	**(46,909)**	**(35,497)**	**(35,419)**

9. CONSTRAINED CASH RESERVES

Reserves as at 31 August 2021	Purpose of reserve	Opening Balance $000	To Reserve $000	From Reserve $000	Closing Balance $000
Special Projects Reserve:					
Waste Levy Reserve	To fund Waste Levy Program	-	1,308	(358)	950
Raby Bay Revetment Wall Reserve	To fund Raby Bay revetment wall works program	4,265	-	(11)	4,254
Fleet Plant & Capital Equipment Reserve	To support the long term fleet replacement program	3,716	236	(117)	3,835
		7,981	**1,544**	**(486)**	**9,039**
Constrained Works Reserve:					
Public Parks Trunk Infrastructure Reserve	Capital projects for public parks trunk infrastructure	6,148	699	(388)	6,459
Land for Community Facilities Trunk Infrastruture Reserve	Land for community facilities trunk infrastructure	4,829	25	-	4,854
Water Supply Trunk Infrastructure Reserve	Upgrade, expansion or new projects for water supply trunk infrastructure	14,760	4	-	14,764
Sewerage Trunk Infrastructure Reserve	Upgrade, expansion or new projects for sewerage trunk infrastructure	11,165	59	(151)	11,073
Local Roads Trunk Infrastructure Reserve	Capital projects for local roads trunk infrastructure	36,517	1,214	(15)	37,716
Cycleways Trunk Infrastructure Reserve	Capital projects for cycleways trunk infrastructure	13,288	400	(234)	13,454
Stormwater Trunk Infrastructure Reserve	Capital projects for stormwater trunk infrastructure	9,898	100	-	9,998
Tree Planting Reserve	Acquisition and planting of trees on footpaths	169	13	(7)	175
Koala Tree off-set Planting Reserve	Acquisition and planting of trees for koala habitat	226	-	(10)	216
		97,000	**2,514**	**(805)**	**98,709**
Separate Charge Reserve:					
Environment Charge Maintenance Reserve	Ongoing conservation and maintenance operations	-	2,678	(1,279)	1,399
SES Separate Charge Reserve	On-going costs of maintaining the Redland SES	70	127	(62)	135
		70	**2,805**	**(1,341)**	**1,534**
Special Charge Reserve - Canals:					
Aquatic Paradise Canal Reserve*	Maintenance and repairs of Aquatic Paradise canals	758	-	-	758
Sovereign Waters Lake Reserve*	Maintenance and repairs of Sovereign Lake	431	-	-	431
1718 Raby Bay Canal Reserve	Service, facility or activity of works in respect of the canals of the Raby Bay canal estate	219	-	-	219
1718 Aquatic Paradise Canal Reserve	Service, facility or activity of works in respect of the canals of the Aquatic Paradise canal estate	(495)	-	-	(495)
1718 Sovereign Waters Lake Reserve	Service, facility or activity of works in respect of the lake	(56)	-	-	(56)
		857	**-**	**-**	**857**
TOTALS		**105,908**	**6,863**	**(2,632)**	**110,139**
		Closing cash and cash equivalents			**206,292**
		Reserves as percentage of cash balance			**53%**

**No interest charged for these reserves in August 2021 year to date due to low prevailing interest rate.*

10. CITY WATER STATEMENTS

CITY WATER SUMMARY OPERATING STATEMENT
For the period ending 31 August 2021

	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000	YTD Variance $000
Total revenue	128,647	128,647	27,124	**26,809**	(315)
Total expenses	76,264	76,465	11,440	**11,376**	(64)
Earnings before interest, tax and depreciation (EBITD)	52,382	52,182	15,684	**15,433**	(251)
External interest expense	224	224	37	**40**	3
Internal interest expense	15,139	15,139	2,523	**2,523**	-
Depreciation	24,711	24,711	4,119	**4,148**	29
Operating surplus / (deficit)	**12,309**	**12,109**	**9,005**	**8,722**	**(283)**

CITY WATER CAPITAL FUNDING STATEMENT
For the period ending 31 August 2021

	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000	YTD Variance $000
Capital contributions, donations, grants and subsidies	2,956	2,956	493	**400**	(93)
Net transfer (to) / from constrained capital reserves	1,019	1,019	(493)	**(57)**	436
Non-cash contributions	5,747	5,747	397	**-**	(397)
Funding from utility revenue	(2,699)	7,450	1,296	**688**	(608)
Total sources of capital funding	**7,023**	**17,173**	**1,693**	**1,031**	**(662)**
Contributed assets	2,379	2,379	397	**-**	(397)
Capitalised expenditure	3,982	14,132	958	**544**	(414)
Loan redemption	662	662	338	**487**	149
Total application of capital funds	**7,023**	**17,173**	**1,693**	**1,031**	**(662)**

11. CITY WASTE STATEMENTS

CITY WASTE OPERATING STATEMENT
For the period ending 31 August 2021

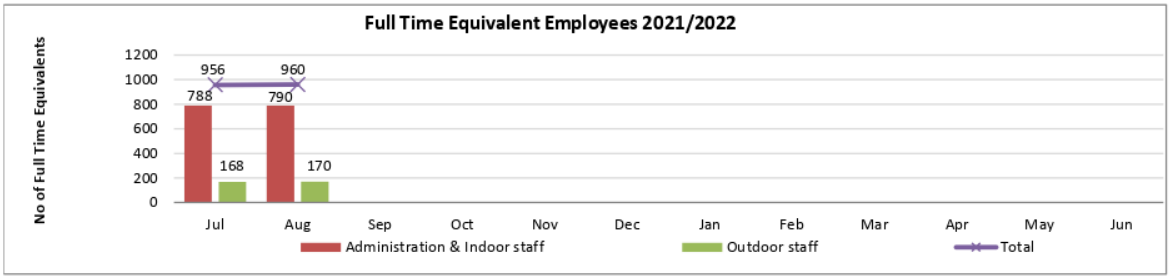
	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000	YTD Variance $000
Total revenue	33,057	33,057	6,695	**6,783**	88
Total expenses	24,137	24,138	4,654	**4,466**	(188)
Earnings before interest, tax and depreciation (EBITD)	8,920	8,919	2,041	**2,317**	276
External interest expense	7	7	1	**2**	1
Depreciation	423	423	70	**57**	(13)
Operating surplus / (deficit)	**8,490**	**8,489**	**1,970**	**2,258**	**288**

CITY WASTE CAPITAL FUNDING STATEMENT
For the period ending 31 August 2021

	Annual Original Budget $000	Annual Revised Budget $000	YTD Budget $000	YTD Actual $000	YTD Variance $000
Funding from utility revenue	755	1,005	423	**375**	(48)
Total sources of capital funding	**755**	**1,005**	**423**	**375**	**(48)**
Capitalised expenditure	600	850	301	**260**	(41)
Loan redemption	155	155	122	**115**	(7)
Total application of capital funds	**755**	**1,005**	**423**	**375**	**(48)**

12. APPENDIX: ADDITIONAL AND NON-FINANCIAL INFORMATION

Workforce Reporting



August 2021: Headcount	Employee Type			
Department Level	Casual	Full Time	Part Time	Total
Office of CEO and People and Culture	6	41	7	54
Organisational Services	3	199	25	227
Community and Customer Services	51	285	68	404
Infrastructure and Operations	8	349	17	374
Total	68	874	117	1,059

Note: Full Time Equivalent Employees includes all full time employees at a value of 1 and all other employees, at a value less than 1. The table above demonstrates the headcount by department. Following Ourspace, the table includes contract of service and temporary personnel. It includes casual staff in their non-substantive roles as at the end of the period where relevant.

Overdue Rates Debtors & Statistics

Days Overdue	Aug-21	% Overdue	Aug-20	% Overdue	$ Variance	% Variance
0 - 30	$6,240,423	7.4%	$7,929,802	9.5%	-$1,689,379	-2.1%
31 - 60	$2,554	5.6%	$0	0.0%	$2,554	5.6%
61 - 90	$4	0.0%	$2,616,681	3.1%	-$2,616,677	-3.1%
91 - 180	$2,012,039	0.0%	$11,081	0.0%	$2,000,958	0.0%
>180	$4,719,872	2.4%	$4,544,306	5.4%	$175,566	-3.0%
Total	**$12,974,892**	**15.4%**	**$15,101,870**	**18.0%**	**-$2,126,978**	**-2.6%**

Rates & Charges Statistics	Aug-21	Aug-20
Levied (Billed) Rates & Charges since 1 July 2021	$73,578,295	$70,924,518
Rate arrears b/fwd 1 July 2021	$10,693,344	$12,988,652
Total	**$84,271,639**	**$83,913,170**
Balance of overdue rates & charges	$12,974,892	$15,101,870
Percentage Overdue	**15.4%**	**18.0%**

13. GLOSSARY

Key Terms

Written Down Value:
This is the value of an asset after accounting for depreciation or amortisation, and it is also called book value or net book value.

Work In Progress:
This represents an unfinished project that costs are still being added to. When a project is completed, the costs will be either capitalised (allocated to relevant asset class) or written off.

Definition of Ratios

Operating Surplus Ratio*: *This is an indicator of the extent to which revenues raised cover operational expenses only or are available for capital funding purposes*	Net Operating Surplus / Total Operating Revenue
Asset Sustainability Ratio*: *This ratio indicates whether Council is renewing or replacing existing non-financial assets at the same rate that its overall stock of assets is wearing out*	Capital Expenditure on Replacement of Infrastructure Assets (Renewals) / Depreciation Expenditure on Infrastructure Assets
Net Financial Liabilities*: *This is an indicator of the extent to which the net financial liabilities of Council can be serviced by operating revenues*	Total Liabilities - Current Assets / Total Operating Revenue
Level of Dependence on General Rate Revenue: *This ratio measures Council's reliance on operating revenue from general rates (excludes utility revenues)*	General Rates - Pensioner Remissions / Total Operating Revenue - Gain on Sale of Developed Land
Current Ratio: *This measures the extent to which Council has liquid assets available to meet short term financial obligations*	Current Assets / Current Liabilities
Debt Servicing Ratio: *This indicates Council's ability to meet current debt instalments with recurrent revenue*	Interest Expense*** + Loan Redemption^ / Total Operating Revenue - Gain on Sale of Developed Land
Cash Balance - $M: *Cash balance includes cash on hand, cash at bank and other short term investments.*	Cash Held at Period End
Cash Capacity in Months: *This provides an indication as to the number of months cash held at period end would cover operating cash outflows*	Cash Held at Period End / [[Cash Operating Costs + Interest Expense] / Period in Year]
Longer Term Financial Stability - Debt to Asset Ratio: *This is total debt as a percentage of total assets, i.e. to what extent will our long term debt be covered by total assets*	Current and Non-current Debt** / Total Assets
Operating Performance: *This ratio provides an indication of Council's cash flow capabilities*	Net Cash from Operations + Interest Revenue and Expense / Cash Operating Revenue + Interest Revenue
Interest Coverage Ratio: *This ratio demonstrates the extent to which operating revenues are being used to meet the financing charges*	Net Interest Expense on Debt Service*** / Total Operating Revenue

* These targets are set to be achieved on average over the longer term and therefore are not necessarily expected to be met on a monthly basis.

** Debt includes lease liabilities.

*** Interest expense includes interest on leases.

^ Loan redemption includes lease redemption.

13.2 AUDIT COMMITTEE 13 AUGUST 2021

Objective Reference: **A5666929**

Authorising Officer: **John Oberhardt, General Manager Organisational Services**

Responsible Officer: **Tony Beynon, Group Manager Corporate Governance**

Report Author: **Lizzi Striplin, Acting Principal Adviser Internal Audit**

Attachments: **1. Audit Committee Minutes 13 August 2021**

PURPOSE

To present the minutes of the Audit Committee meeting held on 13 August 2021 to Council for adoption in accordance with section 211 of the *Local Government Regulation 2012*.

BACKGROUND

The primary objective of the Audit Committee is to assist Council in fulfilling its corporate governance role and oversight of financial measurement and reporting responsibilities imposed under the *Local Government Act 2009* and other relevant legislation. To fulfil this objective and to enhance the ability of Councillors to discharge their legal responsibility, it is necessary that a written report is presented to Council as soon as practicable after a meeting of the Audit Committee about the matters reviewed at the meeting and the Audit Committee's recommendations about these matters.

ISSUES

Refer to the attached minutes of the Audit Committee held on 13 August 2021.

STRATEGIC IMPLICATIONS

Legislative Requirements

This report has been prepared in accordance with the requirements of the *Local Government Act 2009* and the *Local Government Regulation 2012*.

Risk Management

There are no opportunities or risks as a result of this report.

Financial

There are no financial implications as a result of this report.

People

There are no implications on people as a result of this report.

Environmental

There are no environmental implications as a result of this report.

Social

There are no social implications as a result of this report.

Human Rights

There are no human rights implications as a result of this report.

Alignment with Council's Policy and Plans

Internal Audit Policy (GOV-010-P)
Audit Committee Policy (GOV-011-P)
Our Future Redlands - A Corporate Plan to 2026 and Beyond

CONSULTATION

Consulted	Consultation Date	Comments/Actions
Audit Committee members and relevant officers	17-25 August 2021	Audit Committee members and relevant officers were consulted to review and approve the minutes prior to being finalised.

OPTIONS

Option One

That Council adopts the minutes of the Audit Committee Meeting held on 13 August 2021, as attached to this report.

Option Two

That Council resolves to note this report and requests additional information.

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/217

Moved by: **Cr Tracey Huges**
Seconded by: **Cr Rowanne McKenzie**

That Council adopts the minutes of the Audit Committee Meeting held on 13 August 2021, as attached to this report.

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

Redland
CITY COUNCIL

MINUTES

AUDIT COMMITTEE MEETING

Friday, 13 August 2021

The Council Chambers
91 - 93 Bloomfield Street
CLEVELAND QLD

Order Of Business

AUDIT COMMITTEE MEETING
HELD AT THE COUNCIL CHAMBERS, 91 - 93 BLOOMFIELD STREET, CLEVELAND QLD
ON FRIDAY, 13 AUGUST 2021 AT 9:30AM

1 DECLARATION OF OPENING

The Chair declared the meeting open at 9:33am.

2 RECORD OF ATTENDANCE AND APOLOGIES

MEMBERS PRESENT:

Mr Mitchell Petrie	External Member and Chairperson
Ms Mary Goodwin	External Member
Cr Tracey Huges	Councillor Member

SECRETARY:

Mr Kailesh Naidu	Principal Adviser Internal Audit

APOLOGIES:

Cr Karen Williams	Councillor Member (Mayor)

ATTENDEES:

Mr Andrew Chesterman	Chief Executive Officer
Mr John Oberhardt	General Manager Organisational Services
Ms Louise Rusan	General Manager Community and Customer Services (via Teams)
Dr Nicole Davis	General Manager Infrastructure and Operations (via Teams)
Ms Deborah Corbett-Hall	Chief Financial Officer
Mr Andrew Ross	General Counsel (via Teams)
Ms Amanda Daly	Head of People, Culture and Organisational Performance (via Teams)
Mr Tony Beynon	Group Manager Corporate Governance
Mr Glynn Henderson	Group Manager Corporate Services
Ms Joy Manalo	Service Manager Corporate Finance
Mr Dirk Hoult	Acting Group Manager Strategic Asset and Portfolio Management
Ms Rukmie Lutherus	Financial Controller, Redland Investment Corporation
Ms Anca Butcher	General Counsel, Redland Investment Corporation (via Teams)
Ms Ashley Carle	Partner, Bentleys – Queensland Audit Office Representative (via Teams)
Mr Philip Airey	Director, Queensland Audit Office (via Teams)

OBSERVERS:

Cr Wendy Boglary	Councillor, Division 1 (via Teams)
Cr Paul Bishop	Councillor, Division 10 (via Teams)

MINUTES:

Ms Lizzi Striplin	Corporate Meetings and Registers Team Leader

3 DECLARATION OF PRESCRIBED CONFLICT OF INTERESTS AND DECLARABLE CONFLICT OF INTERESTS

Nil

4 RECEIPT AND CONFIRMATION OF MINUTES

4.1 MINUTES FROM THE AUDIT COMMITTEE OF 17 JUNE 2021

Minutes of the previous Audit Committee were confirmed as adopted at the General Meeting of Council 21 July 2021.

COMMITTEE RECOMMENDATION

That the minutes of the Audit Committee of 17 June 2021 be confirmed.

5 BUSINESS ARISING FROM PREVIOUS MINUTES 17 JUNE 2021

Business arising from the minutes of the Audit Committee Meeting of 17 June 2021 as presented:

Item No.	Business Arising from Previous Audit Committee Meeting	Action	Status
1.	Officers, through the Chief Executive Officer, to comment on workplace, health and safety oversight of contractors.	The Chief Executive Officer addressed in Item 6.1	Closed
2.	Principal Adviser Internal Audit to include the Audit Committee Meetings Plan (Audit Committee Charter obligations) as an appendix to future Agenda papers.	The Audit Committee Meetings Plan was attached as an appendix to the Agenda.	Closed
3.	Portfolio Management Office to provide a brief overview of status of projects to support the financial report.	The Acting Group Manager Strategic Asset and Portfolio Management addressed in Item 14.3.	Closed
4.	Group Manager Corporate Services to provide an update on fleet operations audit recommendations at the next meeting.	The Group Manager Corporate Services provided an update. The Audit Committee has requested another report to be brought to a future Audit Committee meeting.	Open
5.	Group Manager Strategic Asset and Portfolio Management to provide an update on the asset data management pilot program and any issues which have been identified at a future Audit Committee.	The Group Manager Strategic Asset and Portfolio Management to provide an update at the March 2022 meeting.	Open
6.	Group Manager Corporate Governance to provide an achievable timeframe for the implementation of the system-based gifts register.	The Group Manager Corporate Governance, through the Principal Adviser Internal Audit, advised that the gift register will be rolled out in October 2021.	Closed
7.	A report to be presented by the Service Manager Risk and Liability Services on Council's risk appetite and tolerance levels.	The Service Manager Risk and Liability Services to provide an update at the March 2022 meeting.	Open
8.	Principal Adviser Internal Audit to present the Guideline at the August Audit Committee to allow for further deliberation.	The Principal Adviser Internal Audit addressed in Item 14.1.	Closed

6 UPDATE FROM THE CHIEF EXECUTIVE OFFICER

6.1 UPDATE FROM CHIEF EXECUTIVE OFFICER

A comprehensive verbal update on general organisational and Council matters was provided by the Chief Executive Officer.

COMMITTEE RECOMMENDATION

That the Audit Committee notes the update as presented.

7 REDLAND INVESTMENT CORPORATION REPORTS

7.1 DRAFT ANNUAL FINANCIAL STATEMENTS 2020-2021

The Draft Annual Financial Statements 2020-2021 were presented to the Audit Committee by the Redland Investment Corporation Financial Controller.

COMMITTEE RECOMMENDATION

That the Audit Committee notes the draft 2020-2021 consolidated financial statements for Redland Investment Corporation Pty Ltd.

8 COUNCIL FINANCIAL REPORTS

8.1 2020-2021 DRAFT CONSOLIDATED FINANCIAL STATEMENTS

The 2020-2021 Draft Consolidated Financial Statements were presented to the Audit Committee by the Chief Financial Officer.

COMMITTEE RECOMMENDATION

That the Audit Committee notes as follows:

1. **The 2020-2021 draft consolidated financial statements as presented.**
2. **That management is still conducting its own reviews in the lead up to the commencement of the final financial audit.**
3. **That the notes from the 11 May 2021 meeting on the Shell Financials are distributed to the Audit Committee as soon as practicable.**

8.2 CONTINGENT LIABILITIES - LEGAL SERVICES

The contingent liabilities report was presented to the by the General Counsel.

COMMITTEE RECOMMENDATION

To note the Legal Services response to Financial Services request to identify contingent liabilities for the year ending 30 June 2021.

9 UPDATE FROM EXTERNAL AUDITORS

9.1 EXTERNAL AUDITORS REPORT

The External Auditors Report was presented by Bentleys Chartered Accountants and the Queensland Audit Office.

COMMITTEE RECOMMENDATION

That the Audit Committee notes the Queensland Audit Office's briefing paper and update as presented.

10 INTERNAL AUDIT PLAN

Nil

11 INTERNAL AUDIT REPORTS

Nil

12 AUDIT RECOMMENDATIONS DUE FOR IMPLEMENTATION

Nil

13 RISK MANAGEMENT

Nil

14 OTHER BUSINESS

14.1 FRAUD AND CORRUPTION PREVENTION GUIDELINE

The updated Fraud and Corruption Prevention Guideline was presented by the Principal Adviser Internal Audit.

COMMITTEE RECOMMENDATION

That the Audit Committee notes Council's updated Fraud and Corruption Prevention Guideline and that a report regarding fraud and corruption control will be presented to the Audit Committee annually.

14.2 INFORMATION MANAGEMENT ACTIVITIES

A report on information management activities was presented by the Group Manager, Corporate Services.

COMMITTEE RECOMMENDATION

That the Audit Committee notes the information management activities.

14.3 PORTFOLIO MANAGEMENT ACTIVITIES

A report on portfolio management activities was presented by the Acting Group Manager, Strategic Asset and Portfolio Management.

COMMITTEE RECOMMENDATION

That the Audit Committee notes the information contained in the report and that an Audit Committee member works with relevant officer to identify additional reports already utilised which may be of benefit to the committee.

14.4 LEGISLATIVE COMPLIANCE

A report on legislative compliance was presented by the General Counsel.

COMMITTEE RECOMMENDATION

To note the Legal Services response to annual external audit of Council controls to manage legislative compliance including a centralised register.

15 MEETING CLOSURE

The Meeting closed at 11.15am.

The minutes of this meeting will be presented for adoption to the General Meeting of Council scheduled 15 September 2021.

13.3 REDLAND CITY COUNCIL MEETING SCHEDULE 2022

Objective Reference: **A5635959**

Authorising Officer: **John Oberhardt, General Manager Organisational Services**

Responsible Officer: **Tony Beynon, Group Manager Corporate Governance**

Report Author: **Lizzi Striplin, Corporate Meetings & Registers Team Leader**

Attachments: **1. Redland City Council Meeting Schedule 2022**

PURPOSE

To adopt the Redland City Council Meeting Schedule for 2022.

BACKGROUND

Section 254B of the *Local Government Regulation 2012* requires Council to, at least once in each year, publish a notice of the days and times when its statutory meetings will be held.

The notice must be published on Council's website and in other ways Council considers appropriate such as a conspicuous place in its public office, the days and times of when the meetings will be held.

Council must, as soon as practicable, notify any change to the days and times, in the same way as the days and times were previously notified.

ISSUES

The attached Redland City Council Meeting Schedule for 2022 has been developed to meet legislative requirements under the *Local Government Regulation 2012.*

STRATEGIC IMPLICATIONS

Legislative Requirements

The recommendations of this report are in accordance with the legislative requirements relating to the conduct of Council's meetings.

Risk Management

There are no significant risk management issues associated with this report.

Financial

There are no specific financial implications associated with this report.

People

Adopting Council's meetings schedule allows Council's Elected Representatives and those officers involved in Council's meetings to effectively plan for their 2022 Council meeting commitments.

Environmental

There are no specific environmental implications associated with this report.

Social

There are no social implications associated with this report.

Human Rights

There are no impacts under the *Human Rights Act 2019.*

Alignment with Council's Policy and Plans

This report aligns with Council's Our Future, Our Redlands – A Corporate Plan to 2026 and Beyond.

CONSULTATION

Consulted	Consultation Date	Comments/Actions
Financial Services	August 2021	For Special Budget Meeting date

OPTIONS

Option One

That Council resolves to adopt the attached Redland City Council Meeting Schedule for 2022.

Option Two

That Council resolves to amend the Redland City Council Meeting Schedule 2022.

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/218

Moved by: **Cr Mark Edwards**
Seconded by: **Cr Julie Talty**

That Council resolves to adopt the attached Redland City Council Meeting Schedule for 2022.

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

REDLAND CITY COUNCIL
MEETING SCHEDULE
JANUARY-DECEMBER 2022

JANUARY 2022		
19	Wednesday 9.30am	General Meeting
FEBRUARY 2022		
16	Wednesday 9.30am	General Meeting
MARCH 2022		
16	Wednesday 9.30am	General Meeting
APRIL 2022		
20	Wednesday 9.30am	General Meeting
MAY 2022		
18	Wednesday 9.30am	General Meeting
JUNE 2022		
15	Wednesday 9.30am	General Meeting
23	Thursday 1.00pm	Special Budget Meeting
JULY 2022		
20	Wednesday 9.30am	General Meeting
AUGUST 2022		
17	Wednesday 9.30am	General Meeting
SEPTEMBER 2022		
14	Wednesday 9.30am	General Meeting
OCTOBER 2022		
19	Wednesday 9.30am	General Meeting
NOVEMBER 2022		
16	Wednesday 9.30am	General Meeting
DECEMBER 2022		
14	Wednesday 9.30am	General Meeting

14 REPORTS FROM COMMUNITY & CUSTOMER SERVICES

14.1 WILLARD'S FARM - STATE HERITAGE LISTING APPLICATION

Objective Reference: **A5718793**

Authorising Officer: **Louise Rusan, General Manager Community & Customer Services**

Responsible Officer: **Graham Simpson, Group Manager Environment and Regulation**

Report Author: **Cameron Mackay, Project Manager Birkdale Community Land**

Attachments: **Nil**

PURPOSE

To provide information to allow a submission from Council with respect to a current State Heritage Listing application for Willard's Farm and adjacent land at Birkdale.

BACKGROUND

Current application

On 11 August 2021, the Queensland Heritage Council of the Department of Environment and Science (DES), received an application to consider listing into the Queensland Heritage Register Willard's Farm and the adjoining land parcel (part of former Commonwealth land) located at 302 Old Cleveland Road East (Lot 2 on RP211270) and 362-388 Old Cleveland Road East, Birkdale (Lot 2 on SP146445) - refer Figure 1 below.

Figure 1 – Affected Properties

A public copy of the application can be found at the following link at the DES website:

www.qld.gov.au/environment/land/heritage/register/applications

Council was notified of the application by DES, as both the owner of the land and the Local Government Authority, on 25 August 2021. This notification included:

- A copy of the application
- An invitation to make a submission in response to the application
- A due date for making a submission
- A requirement to advise on development plans and approvals

Under the *Queensland Heritage Act 1992* any person or entity may apply to enter a place in the Queensland Heritage Register. The application made on 11 August 2021 was submitted by the Birkdale Progress Association and includes details around the historical grounds relied on that would meet the criterion for recognition of the site on the Queensland Heritage Register.

Council has been advised by DES that a written submission in regards to the application must be received by close of business on 1 October 2021. On 3 September 2021, DES also publicly notified that an application has been made and that any person or entity may make a submission also by 1 October 2021.

As such, Council now has the opportunity to make a submission in regards to the application.

Previous application

On 13 July 2015, the then Department of Environment and Heritage Protection (DEHP) received an application from the Birkdale Progress Association to enter Willard's Farm into the Queensland Heritage Register. This application only related to 302 Old Cleveland Road East, Birkdale (Lot 2 on RP211270).

Subsequently, the DEHP undertook a cultural heritage significance assessment and submitted a recommendation in regards to the application. On 8 September 2015, the Queensland Heritage Council concluded that Willard's Farm did not meet the threshold required for State level heritage significance under specific criteria and other considerations outlined in the *Queensland Heritage Act 1992*.

Under the provisions for considering applications to enter a place on the Queensland Heritage Register, a further application could not be considered for a period of 5 years from the date of the previous decision.

Local heritage listing

On 8 June 2016, Council adopted to include Willard's Farm into the Heritage Places Register within Schedule 4 of the then Redlands Planning Scheme, as a property of local heritage significance. This local heritage listing protected the heritage elements of the property through the provision of planning controls.

On 14 December 2016, Council adopted the Willard's Farm Conservation Management Plan (CMP 2016) developed as a consequence of Council's purchase of the site on 9 March 2016. Council's purchase of the property was notably undertaken to save Willard's Farm from approved demolition (by a private certifier) and development into residential housing.

The CMP 2016 provides a detailed description and analysis of the property and associated heritage features, including articulating the chronology of the heritage buildings present. As such, the CMP 2016 has been the basis for Council's planning and management of Willard's Farm.

Birkdale Community Precinct

On 20 January 2021, Council resolved to embark on an integrated precinct planning approach for a number of strategically aggregated projects in and around significant land holdings in Birkdale, known as the Birkdale Land and Willard's Farm resulting in a precinct of approximately 62 hectares.

To inform the decision making in regards to the Birkdale Community Precinct, it was necessary to understand the significant values which underpin what may be possible on the site, this includes the conservation heritage values across the precinct.

Consequently, Council has undertaken significant community engagement and vision development processes that has resulted in a Birkdale Community Precinct Vision, which was adopted on 18 August 2021.

The vision clearly and strongly supports the protection of the values of the site, including the natural environment, Indigenous cultural heritage and European heritage, including World War II history and Tingalpa Creek which are fundamentally important to development of the future master plan and end uses. These values are seen as non-negotiable and are an important part of the future outcomes of the site, which are recognised in the design principles adopted under the vision, in particular the principle "Enable connection to our heritage and history".

Council's commitment to heritage and its incorporation in the Birkdale Community Precinct can be seen at the dedicated Your Say page on Council's website using the link https://yoursay.redland.qld.gov.au/imagine .

ISSUES

DES process

The next steps in regards to the DES process for assessing the current application, involve the following:

- A site assessment visit by DES officers.
- Upon completion of the assessment, including consideration of submissions, DES officers make a recommendation to the Queensland Heritage Council.
- This recommendation must be made no more than 80 business days after the application was received.
- The recommendation will be provided to Council where a further written response can be provided which will be presented to the Queensland Heritage Council as part of its decision process.

Council is yet to be notified of a date for the site assessment visit.

Implications of a State Heritage listing

Should all or part of the nominated site subject to the application be listed in the Queensland Heritage Register, any future site planning will need to consider the documented heritage values. In most ways this is not dissimilar to current obligations under the local heritage listing.

However in addition to this, where development is proposed within a State heritage boundary (or 75 metres or less from it), it will generally also require assessment by the State pursuant to Schedule 10 of the *Planning Regulation 2017*.

The impact of the State heritage listing in a planning sense means that any development will be assessed by the State Assessment and Referral Agency (SARA) against the State Development Assessment Provisions – specifically State Code 14: Queensland Heritage.

The exception to any State involvement in the development assessment process is where an exemption certificate is given. Such matters would generally only relate to minor maintenance work and would be reflected in the current Conservation (Heritage) Management Plan applicable to the site.

Willard's Farm restoration

Council has budgeted $250,000 in 2021/22 to undertake primarily detailed design works for the restoration of Willard's Farm in accordance with the CMP 2016 and a yet to be adopted updated Conservation Management Plan.

Unfortunately, the application for State heritage listing creates uncertainty in regards to both the scope of works and the assessment/approval process for these works. As such this work will need to be delayed until such time as the application for listing on the Queensland Heritage Register is determined which is likely to be in early 2022.

This may also have a flow-on effect in regards to eligibility for grant funding or future capital funding opportunities, as well as detailed planning necessary to integrate Willard's Farm into the Birkdale Community Precinct program.

Options for submission

Council as the owner of the land and the Local Government Authority can make a submission in regards to the application for State heritage listing. There are essentially four options available for a submission as follows:

1. Note the application, resolve to make comments in regards to inaccurate elements of the application and make a formal submission upon receipt of the recommendation by DES but before final determination by the Queensland Heritage Council.
2. Support the application for listing.
3. Not support the application for listing.
4. Make no submission.

Based on the information contained within the application, as well as Council's own studies and publicly stated position in regards the protection of heritage on the site, it is recommended that Council consider adopting option 1.

Option 1 discussion

The basis for recommending option 1 in any submission made, is as follows:

- The CMP 2016, which was adopted by Council in December 2016 as how Willard's Farm and curtilage will be managed, recognises the place as having significant heritage.

- The CMP 2016 states that the listing on the State Heritage Register was rejected in 2015, so listing on the Local Heritage register was at that time appropriate.
- Council is currently undertaking a review and update of the CMP 2016 but this is yet to be finalised and brought to Council for adoption.
- Council has listed and continues to have Willard's Farm and its curtilage protected under the local heritage listing contained within City Plan 2018.
- Council has continually stated its position that the heritage values of Willard's Farm will be protected.

In respect to commenting on the application made for State heritage listing, it is considered appropriate that the following issues be raised in any submission Council makes in regards the application:

- The application includes two lots, one which contains Willard's farm and its immediate curtilage and surrounds (Lot 2 on RP211270), and the other being an adjacent lot which had connections to Willard's Farm historically (Lot 2 on SP146445).
- It is acknowledged that there was a historical connection between the lots but there is little evidence that would support Lot 2 on SP146445 being of any particular significance in regards to a potential State heritage listing.
- It is also relevant that this lot was considered in part, for the State heritage listing associated with the application in 2020 to list the World War 2 Radio Receiving Station and associated antenna array.
- The Queensland Heritage Council did not include the land in the subsequent State heritage listing.
- The application erroneously makes reference to native title claims on the land and the broader Birkdale Community Precinct as well as the requirements of the Commonwealth Government in regards to the conditions of sale to Council, and the veracity of cultural heritage studies.
- The application incorrectly seeks to introduce as a threat to the heritage values of the site, the outcomes of the community engagement and resultant Birkdale Community Precinct Vision, which not only supports protection of relevant heritage values but seeks to celebrate them appropriately.
- The application also attempts to tie large scale development to the land and states any of the proffered visions for the land will impact the sites heritage values negatively, which based on Council's initial purchase, ongoing detailed studies and careful planning approach is misleading.

It is considered appropriate that Council as the owner of the site and the Local Government Authority responsible for planning the site, clarifies these matters with DES.

STRATEGIC IMPLICATIONS

Legislative Requirements

Planning Act 2016

Willard's Farm is currently protected through existing provisions under the Redlands Planning Scheme and managed under Heritage Overlay. This code aims to ensure that:

- Heritage places are not demolished, removed or altered in any way that removes or reduces their heritage values.
- Are not used in a way that is incompatible with their cultural heritage values.

Queensland Heritage Act 1992

The State heritage nomination and listing process is governed by the *Queensland Heritage Act 1992*. As stated above, a land owner is provided with the opportunity to make written submissions to DES at the application stage and when the DES officer recommendation is made. In addition, Council has a right of appeal against the Queensland Heritage Council's decision if necessary.

In making representations or starting an appeal, the grounds must specifically relate to the place satisfying or not satisfying the State cultural heritage criteria. Should Willard's Farm be entered into the Queensland Heritage Register, it would then be protected under the *Queensland Heritage Act 1992*.

In order for a place to be entered into the Queensland Heritage Register, the Queensland Heritage Council must be satisfied that it meets required threshold under Section 35 of the *Queensland Heritage Act 1992*. Section 35 includes eight specific assessment items which must be individually addressed as part of establishing State level significance.

Risk Management

The current risks associated with the application and the potential entering of Willard's Farm and adjoining land into the Queensland Heritage Register include:

- Delays with commencing required design and construction processes to restore the heritage buildings and elements on site due to uncertainty in regards to scope, timing and State approval processes.
- Delays continue the need for ongoing basic maintenance requirements and associated expenditure.
- Delays are a reputational risk given Council's desire to move forward with restoration of Willard's Farm as quickly as possible.
- Escalations in project delivery costs associated with extended project delivery timeframes.

Financial

A budget of $250,000 is allocated to Willard's Farm this financial year for the completion of design packages required to support building restoration works in accordance with an updated Conservation (Heritage) Management Plan. This work is essential to enable eligibility for grant funding opportunities or future capital funding budgets.

There is a possibility existing budget may not be expended this financial year as a result of the State heritage listing application creating uncertainty in regards to the scope and timing of design works.

People

Council has a Project Officer for the Birkdale Community Precinct who coordinates the management of Willard's Farm, including heritage related matters. A State heritage listing will require additional resourcing to manage the process. Site maintenance operations will continue as scheduled with no additional resources required at this stage.

Environmental

Lot 2 on SP146445 (adjoining Willard's Farm) and part of former United States Army Radio Receiving Station (previously Commonwealth land) is subject to a Conservation (ecological) agreement. The impact of any State heritage listing is likely minor but would potentially add further approval requirements for site enhancement works.

Social

The amalgamation of the Willard's Farm land parcel into the broader Birkdale Community Precinct is essential in providing an integrated planning outcome for the site. Willard's Farm represents a core value within the precinct and remains a centre-point for the Vision document, supporting community engagement activities and future site master planning outcomes.

Human Rights

No adverse impacts on human rights have been identified at this stage.

Alignment with Council's Policy and Plans

Willard's Farm and the Birkdale Community Precinct are a strategic catalyst project within Council's *Our Future Redlands – A Corporate Plan to 2026 and Beyond*, specifically Goal 2 Strong Communities:

Birkdale Community Land, Willards Farm and Tingalpa Creek Corridor

Create a shared vision for the end use of the land recognising the rich and diverse history of the site, building those values into creating an iconic landmark for the Redlands Coast.

Council has also identified Willard's Farm and all heritage values in the Birkdale Community Precinct as being a priority for protection in the Birkdale Community Precinct Vision.

Council is, and will continue, to manage heritage values within the precinct appropriately as informed by the relevant Conservation (Heritage) Management Plans developed by expert heritage consultants.

CONSULTATION

Consulted	Consultation Date	Comments/Actions
External heritage specialist consultant	6 September 2021	Implications of State Heritage Listing on Willard's Farm from future development assessment process and site modification perspective.
Principal Strategic Planner	6 September 2021	Existing provisions and protections under Redland City Plan and State Planning Policies.
Program Lead – Strategic Land	6 September 2021	Legislative implications and considerations.

Senior Heritage Officer – Queensland of Department and Science	6 September 2021	Assessment timeframes and process including response and appeal process. Current site maintenance and operational matters discussed.
Design and Technical Services – Manager and Senior Design Lead	30 August 2021	Identification of possible changes to design scope resulting from current State Heritage Listing application and other site variables.
Program Director – Birkdale Community Precinct	27 August 2021	Design approach with respect to Willard's Farm building restorations and broader site planning considerations.

OPTIONS

Option One

That Council resolves as follows:

1. To note Council purchased Willard's Farm to save it from demolition and residential housing redevelopment protecting its heritage values for the community.
2. To manage, and continue to manage heritage values within the precinct appropriately as informed by the relevant Conservation (Heritage) Management Plans developed by expert heritage consultants.
3. To note the third party application for the State heritage listing of Willard's Farm (Lot 2 RP211270) and adjoining land parcel (Lot 2 SP146445) into the Queensland Heritage Register, and provide an initial submission in regards to the issues identified in this report by 1 October 2021.
4. To make a further submission, at the relevant time, in regards the application for State heritage listing, upon receipt of the recommendation by the Department of Environment and Science in regards the application and before final determination by the Queensland Heritage Council.
5. To provide a copy of this report to the Department of Environment and Science and the Queensland Heritage Council.

Option Two

That Council resolves as follows:

1. To make a submission to the Department of Environment and Science that does not support the application for listing of Willard's Farm (Lot 2 RP211270) and adjoining land parcel (Lot 2 SP146445) into the Queensland Heritage Register.
2. To maintain that current local heritage register protections over Willard's Farm provided under Redland City Plan are adequate.

Option Three

That Council resolve to make a submission to the Department of Environment and Science that supports the application for listing of Willard's Farm (Lot 2 RP211270) but not supporting the adjoining land parcel (Lot 2 SP146445) into the Queensland Heritage Register.

Option Four

That Council resolve to not make a submission to the Department of Environment and Science in regards the application for listing of Willard's Farm (Lot 2 RP211270) and the adjoining land parcel (Lot 2 SP146445) into the Queensland Heritage Register.

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/219

Moved by: **Cr Peter Mitchell**
Seconded by: **Cr Rowanne McKenzie**

That Council resolves as follows:

1. **To note Council purchased Willard's Farm to save it from demolition and residential housing redevelopment protecting its heritage values for the community.**
2. **To manage, and continue to manage heritage values within the precinct appropriately as informed by the relevant Conservation (Heritage) Management Plans developed by expert heritage consultants.**
3. **To note the third party application for the State heritage listing of Willard's Farm (Lot 2 RP211270) and adjoining land parcel (Lot 2 SP146445) into the Queensland Heritage Register, and provide an initial submission in regards to the issues identified in this report by 1 October 2021.**
4. **To make a further submission, at the relevant time, in regards the application for State heritage listing, upon receipt of the recommendation by the Department of Environment and Science in regards the application and before final determination by the Queensland Heritage Council.**
5. **To provide a copy of this report to the Department of Environment and Science and the Queensland Heritage Council.**

CARRIED 8/2

Crs Karen Williams, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie and Tracey Huges voted FOR the motion.

Crs Wendy Boglary and Adelia Berridge voted AGAINST the motion.

Cr Paul Bishop was not present when the motion was put.

15 REPORTS FROM INFRASTRUCTURE & OPERATIONS

15.1 COASTAL HAZARD ADAPTATION STRATEGY

Objective Reference: **A5579770**

Authorising Officer: **Dr Nicole Davis, General Manager Infrastructure & Operations**

Responsible Officer: **Bradley Salton, Group Manager City Assets**

Report Author: **Lachlan McClure, Acting Service Manager – Marine Infrastructure Asset Management**

Attachments:

1. **Redland City Council Coastal Hazard Adaptation Strategy**
2. **RCC_CHAS_Terminology_Fact_Sheet 1**
3. **RCC_CHAS_Coastal_Landscape_and_Hazards_Fact_Sheet 2**
4. **RCC_CHAS_Coastal_Resilience_and_Adaptation_Fact_Sheet 3**
5. **RCC_CHAS_Economics_Fact_Sheet 4**
6. **RCC_CHAS_Adaptation_Framework_Fact_Sheet 5**
7. **CHAS_Adaptation_Actions_Sheets**

PURPOSE

To seek Council endorsement of the final Coastal Hazard Adaptation Strategy (CHAS).

BACKGROUND

Project Background

On 14 December 2016 Council resolved to develop the CHAS. This work has progressed and following consultation with key stakeholders and the community, the strategy has now been finalised.

The CHAS is a city wide Strategy that identifies how Council can manage the impacts of coastal erosion, sea-level rise and storm tide inundation. The CHAS enables effective decision making by Council in the management of Council land and assets along the Redland's coastline. It also provides information to assist other stakeholders to plan for and manage the impact of coastal hazards on their assets and interests.

The CHAS was partially funded through the Local Government Association of Queensland (LGAQ) QCoast2100 program. Its development was guided by Council's Coastal Adaptation Steering Committee, and Technical Working Group who reviewed and endorsed the outputs of each of the eight project phases. As a funding partner, the LGAQ also reviewed and approved each of the project deliverables.

Project Inputs

The CHAS was developed for Council by a coastal engineering consultant based on a range of technical inputs and stakeholder consultation.

Technical modelling and analysis was undertaken of coastal erosion, storm tide inundation and sea level rise extents over time. Assets in hazard areas were identified and a detailed risk assessment undertaken to determine vulnerability. To understand cost impacts, a cost benefit analysis was used to estimate, identify and balance the economic case for mitigation. The CHAS was informed

by consultation with both targeted stakeholders and the broader community, including the following:

- A Coastal Adaptation Steering Committee chaired by the Mayor, with members including professional and academic experts and senior State and Council officers, to review the direction of the project at relevant milestones and endorse project deliverables.
- A Technical Working Group made up of 18 officers from across relevant areas of Council to ensure the project met organisational needs by providing technical input and reviewing the deliverables of each of the eight project phases.
- An External Stakeholder Advisory Group comprising 26 participants from various industry groups, asset owners, and community organisations representing city wide interests. This Advisory Group was involved in a series of three webinars to provide expert advice and input.
- The Quandamooka Yoolooburrabee Aboriginal Corporation (QYAC) was represented on both the External Stakeholder Advisory Group, and Coastal Adaptation Steering Committee. QYAC also provided consultancy services for initial phases of the project.
- The broader community was updated on the project via a range of traditional print media, online content and targeted social media, while feedback was gathered via an online survey, a question and answer portal and formal submission period.
- Factsheets were developed to assist stakeholders and the broader community in understanding the content and outputs derived from the strategy – see report attachments 2-7.

ISSUES

Summary of the CHAS

The CHAS provides the high level framework for coastal hazard adaptation across the city. It is a public facing document that summarises the technical work that Council has undertaken as part of the project, and outlines Councils plan for addressing coastal hazards. The strategy begins by providing a high level overview of the impact of coastal hazards, the types of assets at risk, and the likely consequences and costs both now and into the future. It goes on to outline a strategic approach to adaptation, identifying responsibilities and objectives and possible pathways. It recommends city-wide actions and initiatives and identifies the adaptation response suited to particular localities.

While the reality of hazards that the city faces is clear, the CHAS recognises that adaptation can and should be undertaken progressively over a period of time. Phasing works enables Council to responsibly manage expenditure while ensuring actions are proactively planned. The CHAS details and demonstrates that taking early adaptation steps will significantly increase the economic benefit in the long-term. It also provides a framework for deciding when the transition from one adaptation response to another is required.

The CHAS does not determine the details of coastal protection works in particular locations. The planning and delivery of works will still involve site specific coastal process studies, consultation with local communities and engineering designs. The more detailed investigations for locations that face particular challenges are outlined within the Shoreline Erosion Management Plans (SEMPs). Council has adopted two SEMPs which are reflected in the CHAS.

Adaptation is not exclusively a Council responsibility, other stakeholders are responsible for the assets that they own and manage. This includes the State Government, utility providers, local businesses, community organisations and landowners. The CHAS identifies how Council can inform and assist other stakeholders to manage and protect their assets and interests.
Attachment 6 (CHAS factsheet 5) explains the adaptation framework for varying land/asset types including the roles and responsibilities for Council's other asset owners, and private landholders.

Consultation on the Draft CHAS

On 18 November 2020 Council resolved to undertake consultation on the draft CHAS. This was done in accordance with the QCoast2100 program guidelines and the communications and engagement plan for the project. During the consultation period from 19 November to 19 December 2020 the community was invited to review and comment on the draft strategy.

A range of communication materials were used to support consultation and engagement efforts. The key message was that Council is planning for the future and developing a city-wide strategy for the protection of the city's coastline. The communication plan included:

- Your Say page with the draft Strategy, explainer video, fact sheets, Q&A portal
- Advertisements in a range of local and community newspapers
- Consultation phase notice in Councillor newsletters
- Posters and pull-up banners at Council libraries and customer service centres
- Posters on community notice boards such as ferry terminals
- Social media campaign including boosted Facebook posts
- Promotional/explanatory video on the Council YouTube channel and Facebook page
- Media release and emails to the external stakeholder network
- Coastal experiences survey and online submissions portal

Feedback on the Draft CHAS

During the main consultation periods the project Your Say page was visited a total of 4,200 times, and the draft CHAS document downloaded 248 times. The coastal values and experiences survey was completed by 376 people, while 21 formal submissions on the draft strategy were received from both individuals and organisations.

The social media campaign included six Facebook posts promoting various stages of the project, three posts were boosted to increase their reach. The collective reach (number of views of all posts) was 50,707 while the total number of engagements (reactions, comments, shares etc. on all posts) was 8,672.

All submissions on the draft CHAS were reviewed and used to refine the strategy document. Submissions were overwhelmingly in support of the objectives of the strategy and the actions that it recommends. The key themes of these submissions were as follows:

- Questions on how environmental and heritage values were considered
- Requests from organisations for access to the technical reporting and data
- Questions about the process for landowners to protect their private property
- Recommendations for further consultation as projects are implemented
- Requests highlighting erosion and calling for action in particular localities.

Submissions were reviewed by the protect team and consultant and where appropriate a number of amendments and clarifications were made to the strategy document. No major or substantive changes were required.

Implementing the CHAS

Once adopted, Council will begin to implement the CHAS, assisted by an implementation schedule for the recommended actions and initiatives.

Progress is already underway on some of the works and they are already reflected in Council's capital works program. Delivery of the CHAS will focus on the following:

- Embedding the consideration of coastal hazard risks and adaptation into Council's asset management planning practices and processes
- Planning and delivering coastal protection works and initiatives based on an improved understanding of risk and impacts and appropriate adaptation responses and timeframes
- Engaging other utility and service providers to encourage and assist them to adapt the infrastructure and assets that they own and manage, to the benefit of the community.

STRATEGIC IMPLICATIONS

Legislative Requirements

Permits and approvals are required for most coastal protection works under the *Planning Act 2016*, *Coastal Protection and Management Act 1995* and *Marine Parks Act 2004*. All permits and approvals will need to be secured for the works proposed by the strategy. Having a CHAS that outlines the need and justification for works will assist in securing the necessary permits and approvals from the relevant authorities where required.

Risk Management

There is an existing and increasing risk to Council assets and operations from coastal erosion, storm tide inundation and sea level rise. Adoption of the CHAS increases Council ability to anticipate and respond to these risks.

Financial

Development of the CHAS was partially funded through the LGAQ QCoast2100 program. The project was finalised and acquitted by the funding deadline and all funds paid and received.

Implementation of actions and initiatives recommended by the CHAS will require operational and capital funds. Requests will be made as needed and will subject to the normal annual budget development and prioritisation process. Attachment 5 (CHAS fact sheet 4) provides an overview of the economics associated with coastal hazards and highlights how adaptation can substantially improve economic outcomes over the long term.

Coastal hazard adaptation projects are candidates for grant funding though a number of programs and streams. It is anticipated that having an adopted CHAS will assist Council in applying for these grants.

People

Implementation of the CHAS will be led by the City Assets Group, but will also involve teams across Council. A new position has been approved for a dedicated project officer within City Assets to

coordinate the implementation of Council's coastal management strategies as a part of the annual budget development process.

Environmental

The risks and impacts that coastal hazards pose to environmental assets and values was considered in the development of the CHAS. Adoption and implementation of the strategy will assist Council in addressing these risks and impacts.

Social

Consultation and engagement activities ensured a high level of community awareness and understanding of the project. Feedback highlighted that the community is concerned at the risk of coastal hazards, particularly to property and the environment, and that they support the objective and recommendations of the CHAS.

Human Rights

Adopting and implementing the CHAS does not infringe on any human rights.

Alignment with Council's Policy and Plans

Adopting the CHAS is consistent and supports the delivery of Council's Corporate Plan. Key Initiative 5 of Goal 4 Natural Environment is to 'Continue to implement the Coastal Hazard Adaptation Strategy to proactively manage the impact of climate change on our foreshores'.

CONSULTATION

Consulted	Consultation Date	Comments/Actions
External Stakeholder Group	Webinar/workshop: 26 May 2020 28 July 2020 24 November 2020	Provided key stakeholder input into the identification of adaptation pathways, analysis of adaptation options and the final strategy document.
Technical Working Group – refer above description of members	Webinar/workshop: 26 May 2020 28 July 2020 19 February 2020 Review reports: 18 June 2020 15 September 2020 19 February 2020	Provided technical input and guidance on the identification of adaptation pathways, analysis of adaptation options and the final strategy document.
Coastal Adaptation Steering Committee – refer above description of members	Review reports: 30 January 2020 24 June 2020 18 September 2020 24 February 2020	Provided high level strategic guidance and reviewed and endorsed the deliverables of each project phase including the final strategy document.
Service Manager Risk and Liability Services, Organisational Services	1 October 2020	Provided feedback on draft city-wide adaptation actions and a sample of location summaries.
Adviser Waterway and Shoreline Assets, Infrastructure and Operations	1 October 2020	Provided feedback on draft city-wide adaptation actions and a sample of location summaries.
Principal Strategic Planner, Community and Customer Services	1 October 2020	Provided feedback on draft city-wide adaptation actions and a sample of location summaries.

Consulted	Consultation Date	Comments/Actions
Service Manager Marine Infrastructure Asset Management	16 October 2020	Reviewed and provided input on the draft Strategy document.
Individual Councillor briefings	Late October to Early November 2020	Offer made to Councillors whose divisions are coastal and therefore covered by the strategy for an individual briefing prior to community consultation.
Broader community engagement and consultation	Various engagement activities throughout 2020 Consultation on draft strategy from 19 November to 19 December 2020	Project involves ongoing community engagement throughout, particularly during the strategy development phases during 2020. Consultation on the draft strategy took place from 19 November to 19 December 2020.

OPTIONS

Option One

That Council resolves to adopt the Coastal Hazard Adaptation Strategy to inform the management of coastal hazards in Redland City.

Option Two

That Council resolves to not adopt the Coastal Hazard Adaptation Strategy and to request further information from officers.

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/220

Moved by: **Cr Julie Talty**
Seconded by: **Cr Peter Mitchell**

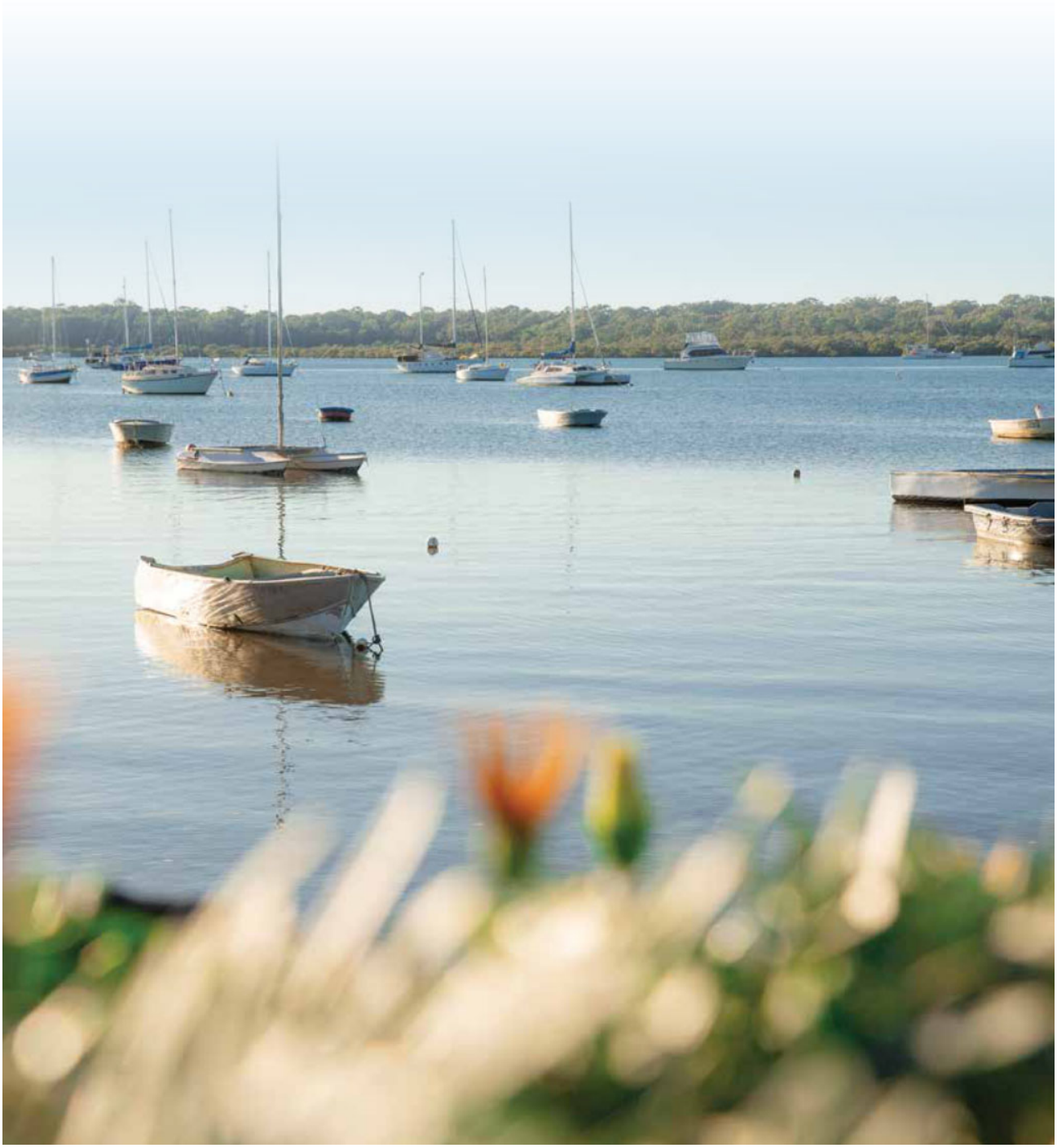
That Council resolves to adopt the Coastal Hazard Adaptation Strategy to inform the management of coastal hazards in Redland City.

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

Redland CITY COUNCIL

Coastal Hazard Adaptation Strategy



Foreword

Redlands Coast is blessed with approximately 335 kilometres of coastline and foreshore areas.

The city has a rich and long history and is the traditional and spiritual home of the Quandamooka People. The coastal zone has significant ecological value and includes Ramsar listed sites and parts of the Moreton Bay Marine Park.

The coastal environment also holds significant recreational, commercial, and eco- and cultural tourism value. Renowned for scuba diving, boating, and recreational and commercial fishing, these values have seen Redlands Coast become a popular place for us to live and work, and is home to more than 150,000 residents, many of who live adjacent to or within proximity to the coastline. The coastal landscape and access to the coast underpins our economy.

Coastlines are dynamic, ever-changing with each tide and storm event. Erosion and storm tide inundation are natural processes that shape the coast over long timeframes. These processes are referred to as coastal hazards when they impact on how we use and enjoy the coast.

The Redlands Coast is currently prone to coastal hazard impacts, driven by cyclones and storm events. Coastal hazard impacts are also predicted to increase with a changing climate.

The Queensland State Government and Local Government Association of Queensland (LGAQ) provided funding to Queensland coastal councils to develop a strategic approach to managing coastal hazards. With the funding awarded to Redland City Council, we have been able to develop this Coastal Hazard Adaptation Strategy.

Our Coastal Hazard Adaptation Strategy enables us to be better prepared to reduce the impacts of coastal hazards on our communities, environment, cultural values, infrastructure, liveability and services, now and to the years 2070 and 2100.

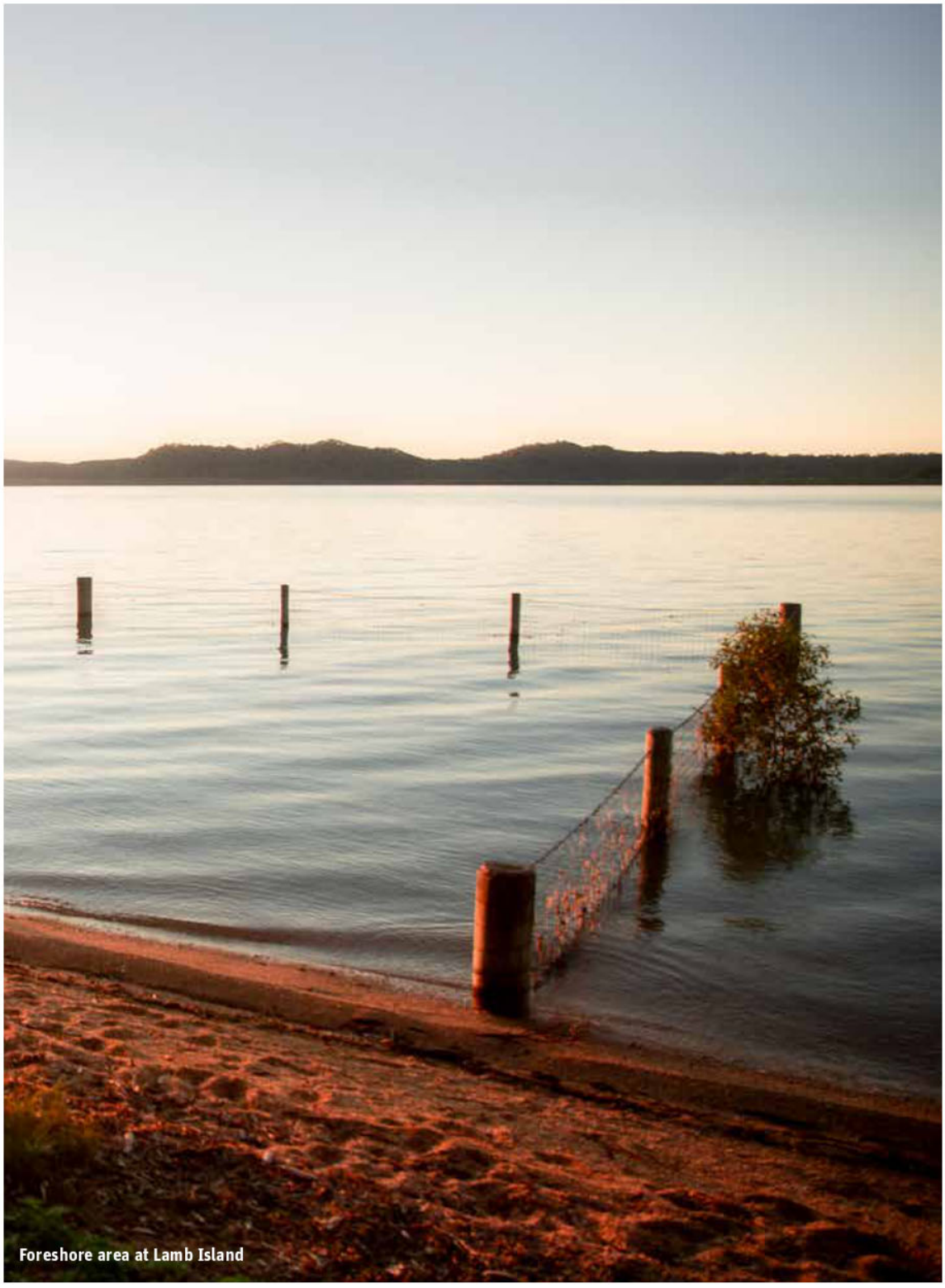
Gorge Walk, North Stradbroke Island (Minjerrabah)

This report has been prepared by:

alluvium

Front cover image: Southern Moreton Bay Islands

Table of contents



Foreshore area at Lamb Island

1 Introduction

1.1 Redland City

The Redland City Local Government Area (LGA), also known as Redlands Coast, includes approximately 335 kilometres of coastline and foreshore (Figure 1).

The coastal zone extends from Tingalpa Creek at Thorneside south to the mouth of the Logan River and across the Southern Moreton Bay Islands and North Stradbroke Island (Minjerribah). North Stradbroke Island forms a barrier between the Coral Sea and Moreton Bay (Quandamooka).

The Traditional Owners of much of the Redlands Coast are the Quandamooka People who have cared for the land and sea of this ancient landscape for thousands of years. The Quandamooka Yoolooburrabee Aboriginal Corporation (QYAC) is formally recognised as the Prescribed Body Corporate for the Quandamooka People's Native Title rights under the *Native Title Act 1993*.

The landscape has been shaped by coastal processes over thousands of years. Erosion and accretion of the shoreline, and inundation of coastal areas, are part of these natural processes. However, these processes can become coastal hazards when they have the potential to impact on infrastructure, access, services, our lifestyle and the economy.

Figure 1. Redlands Coast (within the Redland City LGA)

1.2 Strategy purpose and approach

Context

The QCoast2100 program is a statewide initiative of the Queensland State Government and Local Government Association of Queensland (LGAQ). The program was launched to help Queensland coastal councils proactively plan for managing coastal hazard impacts, from present-day to the years 2070 and 2100.

Redland City Council was awarded funding through the QCoast2100 program to develop its Coastal Hazard Adaptation Strategy.

The Coastal Hazard Adaptation Strategy has been:

- Developed to proactively manage the impact of coastal hazards, now and into the future
- Developed in consultation with stakeholders and communities
- Tailored to include our full coastal landscape and communities.

Purpose

The purpose of the Strategy is to:

- Inform future decisions regarding the protection and management of our coast and foreshore
- Inform future land use planning
- Guide the management of public utilities and facilities
- Guide the management of areas of environmental and cultural significance
- Foster collaboration, and the shared care of our coastline.

Raby Bay canal estate

Approach

The Coastal Hazard Adaptation Strategy has been developed through an eight-phase process (Figure 2) as outlined in the QCoast2100 Minimum Standards & Guidelines (LGAQ and DEHP 2016)[1].

The process has included a series of studies and activities that sought to:

- Identify coastal hazard areas
- Understand vulnerabilities and risks to assets
- Engage with the community to understand the preferred approaches to adaptation
- Determine adaptation actions, costs, priorities, and timeframes for implementation.

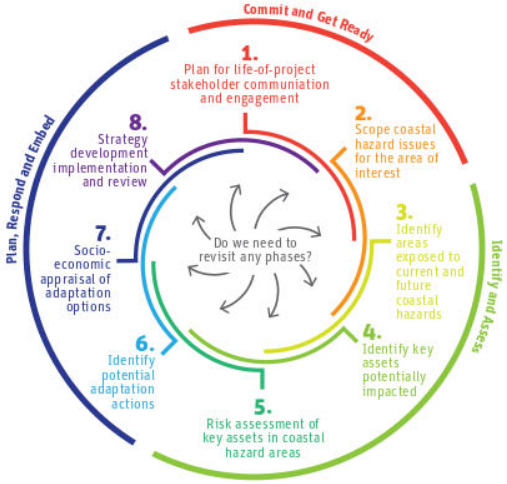


Figure 2. QCoast2100 eight-phase process

1.3 Engagement

Process

The Strategy development has been informed through consultation with key stakeholder groups and our Redlands Coast communities.

Engagement activities have included:

- Information sessions in August 2018 for business owners, community groups, and residents at risk from coastal hazards to provide background information on the Coastal Hazard Adaptation Strategy development
- Workshops with Council and external asset owners in August and September 2018, and February 2019, to help build awareness, prioritise coastal assets and values, and outline the risk assessment approach. This included representatives from local businesses, Redland City Council, QYAC, and cultural heritage experts
- Online workshops and discussions with key stakeholders occurred from May to November 2020
- An online 'Our Coastal Values and Experiences' survey was open from June to July 2020 to seek feedback from the community on coastal values and preferences for adaptation approaches
- Consultation on the draft Strategy from November to December 2020.
- The project consultation page received 2,300 page visits and a number of submissions that were considered to refine the final strategy.

[1] https://www.qcoast2100.com.au/

Communication

A dedicated page on Redland City Council's Your Say website was used for publicising the project, sharing information, and encouraging registration and participation.

A range of communication materials was produced during the development of the Strategy. These included project updates, Frequently Asked Questions, an explainer video, climate adaptation-related resources, and a series of tailored fact sheets pertinent to coastal hazard adaptation.

The fact sheets include:

- Terminology
- Coastal Landscapes and Hazards
- Coastal Resilience and Adaptation
- Adaptation Framework
- Economics
- Strategy Summary

Outcomes

All input and feedback assisted in shaping the direction of technical investigations underpinning the Strategy and priority adaptation actions for Redlands Coast.

Additional outcomes include:

- A shared understanding of needs and opportunities in the adaptation planning process for Redlands Coast
- Appreciation of objectives for coastal management and preferred approaches to adaptation.

1.4 Strategy content

Council's Coastal Hazard Adaptation Strategy includes:

Section 2: An overview of landscape features, values, history, and critical elements of a resilient Redlands Coast.

Section 3: An overview of coastal hazards, including erosion and inundation, areas that may be exposed to coastal hazards, and the implications of exposure, including potential economic costs.

Section 4: Redland City Council's approach to adaptation, including a framework for shared responsibilities, adaptation responses, and options.

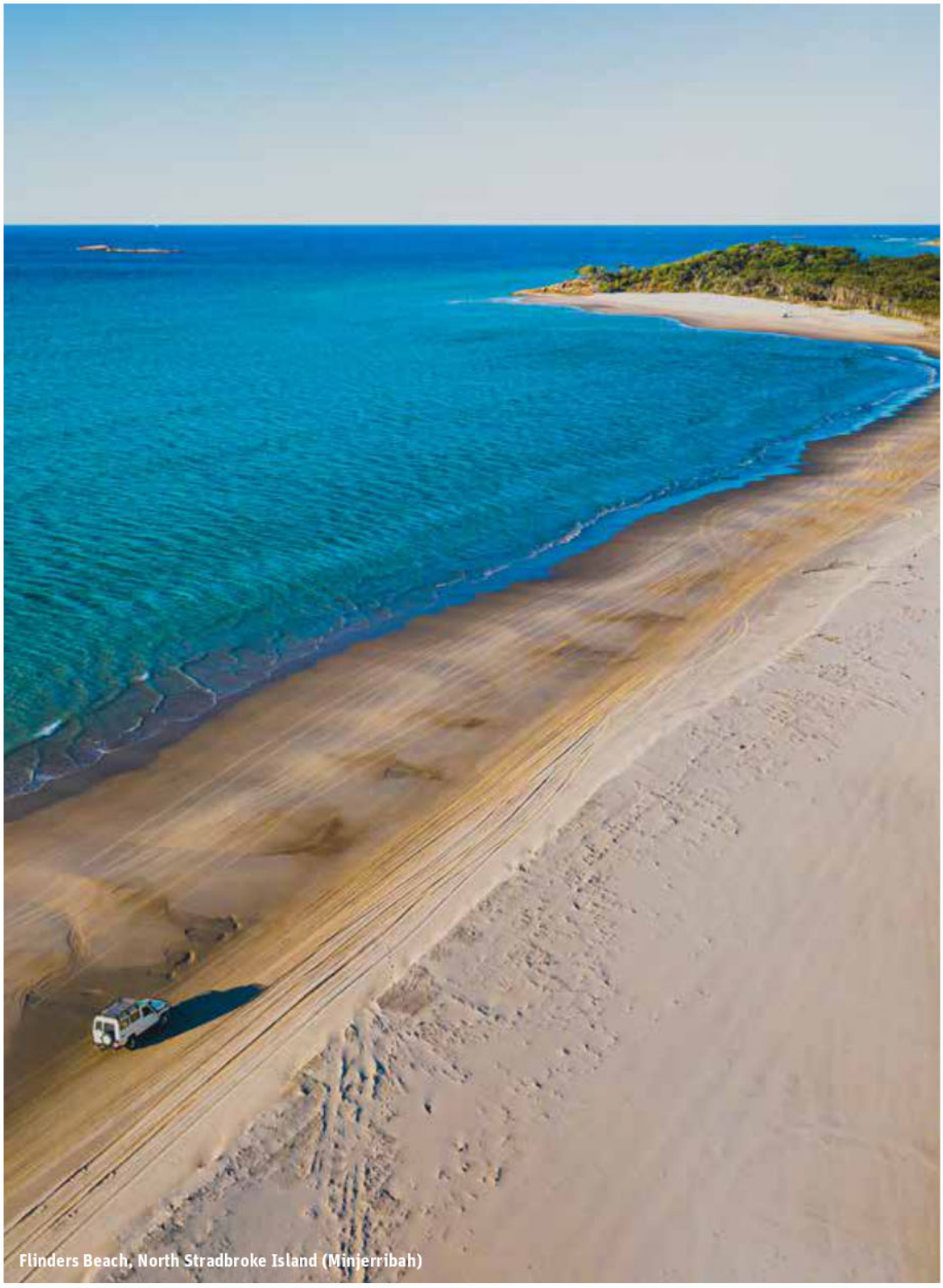
Section 5: Priority adaptation actions across the city.

Section 6: Locality summaries with tailored adaptation actions for different communities.

Section 7: The approach to implementation, including adaptive management and change management planning.

The Strategy actions have been developed based on outcomes from the technical investigations and engagement undertaken over phases one to eight of the Strategy development process.

Raby Bay, Cleveland



Flinders Beach, North Stradbroke Island (Minjerribah)

2 Our Redlands Coast

Beach between groynes at Raby Bay Foreshore Park

Key environmental values include:

Coastal landforms – including the bay and intertidal areas, inlets and coastal plains, and sandy beach systems of Minjerribah

Vegetation communities and ecosystems – including the wetlands, seagrass, coral reefs, mangroves, and native dune vegetation

Significant and endangered species – including both land and marine wildlife (e.g. turtles, dugongs, birds, and fish).

2.1 Coastal landscape

Values

Redlands Coast is a key part of the traditional homeland of the Quandamooka People. Quandamooka means "people of the land and seas" and reflects the strong cultural ties to the landscape. The coastal landscape has high cultural significance for the Traditional Owners who value the protection and sustainability of the land and sea.

The coastal zone also has significant ecological value and includes Ramsar listed sites and parts of the Moreton Bay Marine Park. Moreton Bay (Quandamooka) provides a habitat for a diverse range of unique plants, and animals including rare, vulnerable, and endangered species such as migratory shorebirds, frogs, dugongs, and turtles.

The region is home to valued threatened ecological communities including littoral rainforest, coastal vine thickets and saltmarshes.

Well-known features of the Redlands Coast coastline include:

- The Ramsar listed Moreton Bay Marine Park
- Barrier dunes on the world's second-largest sand island, North Stradbroke Island (Minjerribah).

The coastal environment also holds significant lifestyle, recreational, commercial, and eco and cultural tourism value. The region is renowned for scuba diving, boating, recreational and commercial fishing, and a diversity of active and passive recreational activities.

Economy

Redlands Coast has a diverse economy. The five largest sectors are health care and social assistance, construction, professional, scientific and technical services, and manufacturing. Together, these sectors contribute 40% of the total value-added economic activity in the LGA, which is slightly higher than the state average.

Moreton Bay (Quandamooka) is Queensland's most important commercial fishery and provides significant economic value to Redlands Coast.

The city also attracts an average of more than 1 million local and international visitors per year, and the added value to the economy was $158.2 million in 2018/19[2]. Employment in the tourism industry is estimated at 1,382 full-time equivalent jobs. In 2018/19, most visitors to Redlands Coast were domestic overnight visitors (53.7%), followed by domestic daytrips (24.0%) and international visitors (22.3%).

While Redlands Coast's economy is generally well-diversified and resilient to disruption, the tourism industry and local businesses rely heavily on the coastal environment and coastal zones, and, therefore, may be vulnerable to coastal hazard events. Strategic planning and adaptation initiatives will assist in mitigating these potential impacts.

[2] Phase 7 summary report (RCC 2020b)

2.2 Towards resilience

Change, resilience and adaptation

One of the more challenging aspects of the coastal landscape is that it experiences constant and often rapid change.

Wind and waves continually work to move sediment and shape the shoreline, and extreme weather events can periodically result in substantial erosion and inundation of coastal land.

A resilient coast has social, economic, and environmental systems in place to avoid, manage, and mitigate the impact of hazardous events or disturbances (e.g. coastal hazards). Resilience also means the ability to respond or reorganise in ways that maintain the essential function, identity, and values of a region, while also being able to adapt to change.

For Redland City, coastal hazard adaptation options included in the Strategy are in accordance with the identity and values of our coastal communities.

The top three values of the coast identified during the consultation activities are:

- Natural ecosystem values
- Unique landscape and natural beauty
- Recreation and access.

There is a strong preference for nature-based options as the primary/initial pathway for coastal hazard adaptation. The community values coastal and island lifestyle and wishes to see this preserved.

Redlands Coast CHAS Survey June-July 2020

An online survey was available from June to July 2020 and received over 370 responses. The survey results have informed an understanding of key values and preferences for coastal hazard adaptation options. Highlights from the survey findings include:

Natural values of the landscape and access to the coast are key values. Over 80% of respondents noted the top values of the coast as natural ecosystem values, unique landscape and natural beauty (encompassing natural and cultural values), recreation and access.

There is strong community support for adaptation and planning. More than 75% of respondents support the need for proactive adaptation planning.

There is a significant preference for natural adaptation options. Over 70% of respondents have a preference for nature-based solutions for Redlands Coast in the future, including mangroves, dune protection, planning, and nourishment.

Wilson Esplanade, Victoria Point

3 Coastal hazards

3.1 Hazards

Coastal hazards include inundation of low-lying coastal land, and/or erosion of the shoreline.

Periodic inundation and erosion are natural processes and contribute to shaping the unique landforms of our coastal zone. However, when these processes have an adverse impact on communities, infrastructure and some natural assets, they are considered coastal hazards.

In southeast Queensland, major coastal hazard impacts are typically associated with East Coast Lows and occasional Tropical Cyclones.

3.2 Storm tide inundation

Storm tide inundation is the flooding of low-lying coastal land from a locally elevated sea level (the 'storm tide'). The storm tide is a combination of the predicted tide, storm surge, and wave action (Figure 3). Storm surge is driven by the combined influence of low atmospheric pressure and high winds associated with events such as Tropical Cyclones.

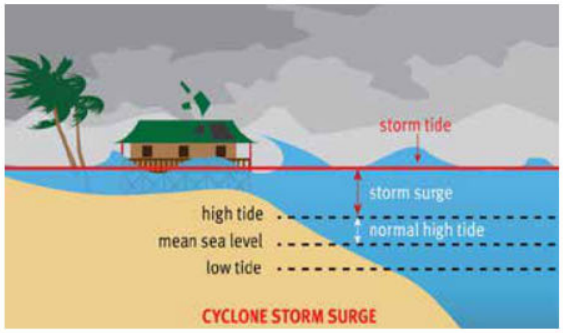


Figure 3. Components of storm tide

3.3 Coastal erosion

Coastlines naturally erode and accrete over time, driven by variations in sediment supply and climate patterns.

Short-term erosion

Coastal erosion occurs when winds, waves, and coastal currents act to shift sediment away from the shoreline. This can be a short-term shift, often associated with storm activity (termed storm bite), and the beach will then gradually rebuild (Figure 4).

When a beach is stable, all of the sand moved offshore during a storm eventually moves back onto the beach (over timeframes of months to years). In this case, periodic beach erosion does not result in a long-term landward movement of the shoreline.

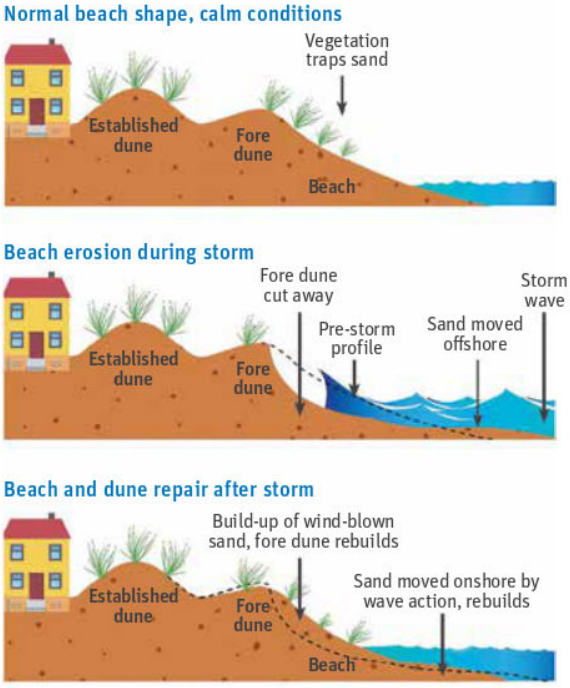


Figure 4. Natural short-term erosion and dune rebuilding process

Long-term erosion

In other cases, due to changing sediment supply or climate conditions, the beach may not have sufficient capacity to rebuild between storm events. In the absence of intervention, long-term erosion (termed recession) may occur, which is the landward movement of the shoreline over a longer timeframes.

Both short-term and long-term erosion processes may impact on coastal assets, depending on how close to the foredune assets are located.

3.4 Tidal inundation due to sea level rise

Tidal inundation is regular or permanent inundation from the tidal cycle, including up to the Highest Astronomical Tide. Areas of low-lying coastal land will be prone to an increased extent of tidal inundation with sea level rise. A 0.8m sea level rise by 2100 is currently planned for by the Queensland Government.

3.5 Current and future exposure

Redlands Coast is prone to storm events, and coastal hazard impacts are predicted to increase with a changing climate. A tailored approach to mapping coastal hazards for Redlands Coast has informed the Strategy development[3].

Storm tide inundation mapping

Storm tide mapping was produced in 2011 for Redland City Council, including planning horizons for 2016 and 2100 storm tide inundation. This was later revised in 2016 using an updated elevation model. In 2017, an intermediate, 2070 planning horizon, was also included.

The development of the Coastal Hazard Adaptation Strategy has utilised these existing 2016, 2070 and 2100 mapped hazard areas.

Erosion Prone Area (EPA) mapping

The Queensland Government define "Erosion Prone Areas" to the year 2100 as:

- Open coast erosion: A calculated component of open coast erosion potential, informed by erosion modelling
- Tidal zones: The combined area inundated by the Highest Astronomical Tide plus a defined horizontal buffer, plus any additional area inundated due to sea level rise.

The development of the Coastal Hazard Adaptation Strategy has included refinements to the Queensland Government's 2100 EPA mapping, as well as modelling of erosion for 2070 and present-day planning horizons.

As required by the Queensland Government, a sea level rise of 0.8m by 2100 has been adopted for the Coastal Hazard Adaptation Strategy (with 0.41m by 2070).

Event likelihood

Mapping for both erosion and storm tide inundation is based on a 1% Annual Exceedance Probability (AEP) event for all planning horizons (Table 1). Additional sensitivity analysis of more frequent AEPs was included to inform the assessment of adaptation options through the economic analysis.

Likelihood of occurrence	Hazard AEP	Planning horizons
Possible	1%	Present-day, 2070, 2100

Table 1. Likelihood of occurrence scenarios

Erosion Prone Areas and storm tide inundation indicate areas that may be exposed to erosion or inundation processes, now or in the future. They do not represent a predicted loss of coastal land. In many cases, hazard extents and impacts can be avoided, mitigated, or managed through adaptation planning.

Future coastal hazards

Projected sea level rise and an increase in cyclone intensity for the Queensland coastline is anticipated to increase the extent and impact of coastal hazards.

Coastal erosion:

- Increased water levels will accelerate coastal erosion
- Sediment transport patterns may be altered by shifts in wave direction, triggering changes to the form and location of shorelines
- Low-lying land may be permanently inundated
- Increased cyclone and storm activity will escalate the severity of coastal erosion events

Storm tide inundation:

- Sea level rise will increase the apparent severity and frequency of storm tide inundation and will cause inundation to occur further inland
- Increased cyclone and storm intensity will add to the magnitude of storm tide events and the extent of inundation

Source: Coastal Hazard Technical Guideline (DEHP 2013)

Hazard exposure

The mapped coastal hazard extents indicate areas and assets that may be exposed to different hazards now, and/or in the future.

For Redlands Coast, there is a range of land and asset types, as well as cultural resources that are likely to experience increased exposure to erosion and inundation by 2100. These include housing, commerce, recreation, health and safety, heritage, agriculture, land, transport, urban services, environment, and natural resources.[4]

The potential impact or consequence of exposure provides an appreciation of the relative risk of coastal hazards, as presented in the following section.

[3]Phase 3 Summary report (RCC 2019c)

[4]Phase 4 Summary report (RCC 2019d)

3.6 Land and assets at risk

Approach

Coastal hazards have the potential to have adverse impacts on Redlands Coast's coastal communities, services, and lifestyle, in both the present-day and by 2100.

As part of the Strategy development, new technical assessments were undertaken to review coastal hazard risk for a range of assets across the region[5].

The risk assessment includes an analysis of:

- Data on infrastructure assets (drainage, sewerage, water, roads, marine, beach, and foreshore)
- The Redland City Council planning scheme land parcels
- New information collated on dwellings (building locations, types)
- Environmental and land use overlays.
- Assets include tangible and intangible assets, as well as public and privately owned assets.

The risk is assessed against the likelihood of an asset being exposed to a coastal hazard, combined with the consequence of that exposure. The Redlands Coast tailored risk assessment for the 2070 and 2100 planning horizons considers:

- Exposure – realisation of the hazard event
- Sensitivities – inherent asset value impacted by exposure, design life and connectedness
- Potential impact – calculated by multiplying exposure and sensitivity; included connectedness for some calculations
- Vulnerability – assessed how much adaptive capacity and business-as-usual capacity would ameliorate the raw potential impact
- Value – environmental, social, and economic and governance support an asset provided to other assets.

Emerging risk profile

The present-day coastal hazard risk is relatively low for the majority of Redlands Coast. Less than 1% of residential, commercial, and community zoned areas are currently at risk from coastal hazards (Table 2). Around 5% of industrial areas and 8% of Indigenous places are at risk from storm tide inundation.

Coastal hazard risk increases notably into the future for some zones, with up to 4.4% of residential areas at risk by 2100 and a similar increase in the risk profile for commercial and community zoned areas and industrial areas.

Indigenous places have the highest increase in coastal hazard risk by 2100, with up to 31.9% of areas at risk from open coast erosion by 2100 and 14.7% of zones at risk from storm tide inundation.

	EPA			Storm tide (1% AEP)		
% planning scheme zone at risk from coastal hazards	**Present-day**	**2070**	**2100**	**Present-day**	**2070**	**2100**
Residential properties	-	1.2	2.1	0.7	2.4	4.4
Industrial buildings	-	6.6	6.9	4.1	6.3	8.4
Commercial buildings	-	1.6	2.0	0.5	2.1	3.9
Community buildings	-	0.4	0.8	0.4	1.2	1.7
Indigenous places	-	26.9	31.9	8.1	12.6	14.7

Table 2. Areas of planning scheme zones at risk

The risk assessment data has been used to inform the development of adaptation pathways for different locations along Redlands Coast. Data on individual asset risk will also be adopted into Council's asset management systems to inform renewal, upgrade, and betterment programs to improve asset resilience.


Aquatic Paradise Park East, Birkdale

[5]Phase 5 Summary report (RCC 2019e)


Aquatic Paradise Park West, Birkdale

Economic risk (base case)

In the absence of intervention or adaptation, there are economic costs associated with coastal hazards.

Economic analysis is critical for determining the best approach to coastal hazard adaptation for different localities. Economics is used in several ways, including:

- Value assets and key industries
- Define a base case (cost of no action)
- Assess adaptation options.

After assigning values to key infrastructure and natural assets[6], the foundational step of an economic assessment in coastal hazard adaptation is to define a base case (Figure 5). This means determining the potential economic costs or losses associated with coastal hazards (and no additional adaptation/intervention). This becomes the baseline for a cost-benefit assessment of implementing adaptation options.

The base case for the Strategy has been determined by examining the likelihood and consequence of coastal hazard impacts on assets and at different timeframes (e.g. present-day, 2070, and 2100).

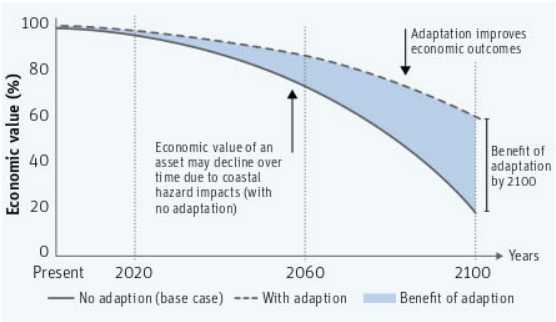


Figure 5. Economic base case and benefit of adaptation

Assets considered were not just Council assets and included; community assets, assets for public benefit, infrastructure provider assets, environmental and cultural assets.

Four key components of damages and losses have been considered for the base case:

1. **Damage to buildings and facilities –** Buildings and facilities include various public and private residences/buildings. This considers the financial cost of repairing or replacing assets.
2. **Damage to other infrastructure (Council-owned) –** These Council-owned assets include Council roads, car parks, pathways, flood mitigation and foreshore infrastructure, stormwater and waste infrastructure, and recreation facilities (e.g. pools). This considers the financial cost of replacing these assets.
3. **Damage to infrastructure (non-Council-owned) –** These non-Council owned assets include road, water and rail transport infrastructure, electricity and other energy infrastructure, telecommunication infrastructure, emergency services infrastructure, and water and sewerage infrastructure. This considers the financial cost of repairing or replacing these assets.
4. **Land, environmental, and cultural asset damages –** Land, environmental, and cultural assets include land classifications such as wetlands, coastal forests, irrigated agriculture, and native grazing. Damage is estimated as the lost value from a reduction in the area and quality of these assets.

[6] Refer to Phase 7 Summary report (RCC 2019b)

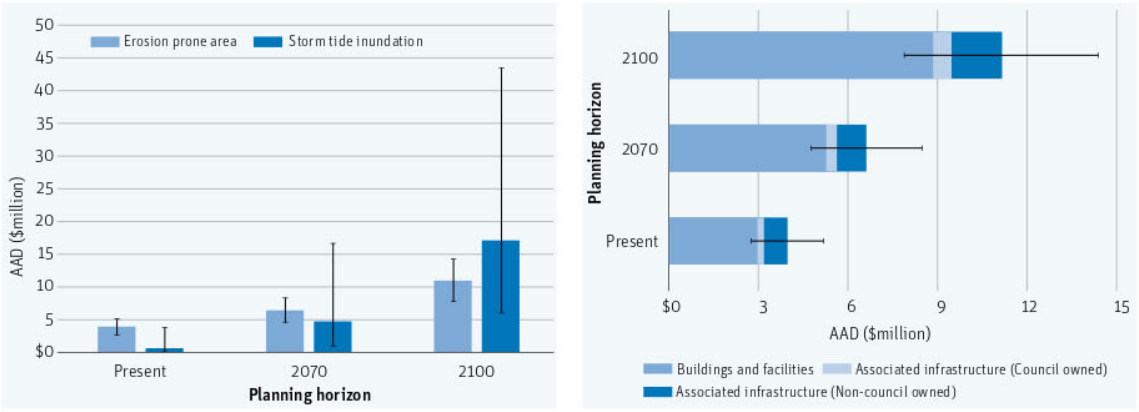


Figure 6. Potential average annual damages from coastal hazards for infrastructure assets (base case)

For Redlands Coast, the present-day average annual damages (AAD) associated with combined coastal hazard impacts on infrastructure assets are estimated to be in excess of $4 million (Figure 6). This is the average cost impact that could be expected to occur annually due to coastal hazards. This will vary from year to year, and link to weather events.

In the absence of adaptation, this is likely to increase to $11.5 million annually (AAD) by 2070 and over $28 million annually by 2100. The predicted increase in tidal zones linked to sea level rise is the main driver of the increase.

Losses of natural assets has also been considered in addition to infrastructure assets. Potential coastal hazard impacts for natural assets may be over $2.5 million annually (AAD) by 2100.

The estimated damages are largely linked to marsh/wetland, conservation and natural environments, predominantly around the Southern Moreton Bay Islands and North Stradbroke Island (Minjerribah).

Coastal hazards may also impact on cultural heritage assets. Should the underlying natural assets be damaged, these Indigenous values would be at risk.

Strategic adaptation can assist to avoid, mitigate and manage the impacts and potential economic damage associated with coastal hazards.

Implementing the adaptation approach and actions in the Coastal Hazard Adaptation Strategy will help avoid potential economic costs to Redland City of up to:

- Present-day: $4 million per annum
- By 2070: $11.5 million per annum
- By 2100: $30+ million per annum.

4 Approach to adaptation

4.1 Framework

Council's role

Redland City Council recognises a shared responsibility for the management of coastal hazard risk; shared by all land managers, private landowners, and Council.

Council's primary responsibility is the maintenance and protection of Council land and assets, and to inform statutory planning. Council is not responsible for undertaking any foreshore protection works on privately-owned land across Redlands Coast.

Council's role in adaptation varies depending on the type and ownership of different assets (Table 3). Council's role includes to:

- **Inform –** Council will make available to all stakeholders (including public and private land and asset owners) the outcomes of relevant Council-led investigations on coastal hazard risk, planning, and adaptation options.
- **Observe –** Council will actively observe/monitor coastal hazard risk for Council owned land and assets. For land and assets owned or managed by others, Council may, as part of everyday activities, observe a risk from coastal hazards and will notify the relevant landowner/manager.
- **Plan –** Council will develop strategic planning measures to mitigate the risk of coastal hazard impacts on Council-owned land and assets, and to inform appropriate land use planning across the region.
- **Act –** Council will implement strategic planning measures to mitigate the risk of coastal hazard impacts on Council-owned land and assets, and to inform appropriate land use planning across the region.

Initiatives in the Coastal Hazard Adaptation Strategy also seek to foster and enable other stakeholders to proactively manage coastal hazard impacts on their own/land assets per the Strategy and in consultation with Council.

		Land or asset type		
		Council-owned	Managed by other authorities	Privately-owned
Council's role	Inform	✓	✓	✓
	Observe	✓	○	✗
	Plan	✓	✗	✗
	Act	✓	✗	✗

Table 3. Council's role in coastal hazard adaptation

A strategic approach

Across Australia and internationally, coastal land managers are taking a strategic approach to manage the risk of coastal hazards and enhance the resilience of our coastal zones.

Common elements of this strategic approach include:

- Assigning a strategic adaptation response to various localities to guide decision making with a pathways approach across present-day, intermediate, and 2100 planning horizons
- Assessing the range of adaptation options suitable in different locations to help avoid, mitigate, and manage the risk of coastal hazards
- Developing a strategy for coastal adaptation, with prioritised actions over a 5–10-year timeframe.

A tailored approach has been developed to guide decision making on adaptation response and options across Redlands Coast.

Cleveland Point

Adaptation objectives

The purpose of clarifying adaption objectives is to help guide an appropriate adaptation response and to screen adaptation options across different localities.

Objectives for Redlands Coast, as informed by consultation with stakeholders and the community, include:

- Retain the natural beauty of the coast
- Limit adverse impacts on scenic amenity
- Protect ecosystems
- Protect freshwater and tidal waterways and wetland habitats that support our unique and diverse wildlife such as dolphins, dugongs, and migratory shorebirds
- Minimise potential impacts on tourism
- Protect significant and vulnerable areas (environment and biodiversity)
- Retain sandy beaches
- Maintain access to the coast, including the beach, bay, and foreshore.

These objectives provide a reference for considering the suitability of different coastal hazard adaptation options across the coast.

Adaptation response

The tailored framework includes the following four adaptation responses: Avoid, Monitor, Maintain, and Prepare, Mitigate, and Transition, as outlined in Table 4.

Adaptation response	Coastal hazard adaptation		
Avoid Avoid placing new development or assets in coastal hazard areas	**Monitor, maintain, and prepare** Monitor the risk of coastal hazards. Monitor until local trigger levels are reached to initiate mitigation. + Maintain existing arrangements and prepare for future actions	**Mitigate** Actively mitigate the risk of coastal hazards through a range of additional adaptation options. Mitigate until local trigger levels are reached to initiate transition.	**Transition** A strategic decision to transition to an alternative land use in some areas. Mitigation may be part of the transition process.
Adaptation options	Full range of adaptation options		

Table 4. Adaptation response

Avoid

The first principle is to avoid placing new development or assets in coastal hazard areas. The preference is to ensure land use in coastal hazard areas is one that is low risk for coastal hazard impacts while also maximising economic, social, and environmental value to the region.

Any new development/infrastructure that is placed in coastal hazard areas will need to be in accordance with Queensland Government planning policy and approvals requirements and include necessary migration measures.

Monitor, maintain, and prepare

At localities where the coastal hazard risk profile is relatively low, Council will continue to monitor risk and undertake existing maintenance and asset management activities (including planned upgrades), planning and preparation for future mitigation works, and broader stewardship initiatives for the coastline. If over time, the risk profile is observed to increase (as indicated by local trigger levels), then the adaptation response may shift to mitigate.

Mitigate

At localities where coastal hazard risks have been identified, Council will actively manage the risk through implementing a range of adaptation options.

Mitigation will be tailored to each locality, incorporating site-specific processes, community input, and statutory planning considerations. If, over time, the risk profile is observed to increase (as indicated by local trigger levels), and mitigation becomes infeasible (due to economic or other factors), then the adaptation response may shift to transition.

Transition

In some specific areas within a locality, if the coastal hazard risk profile is very high, and/or mitigation becomes infeasible (due to economic or other factors), Council may make a strategic decision to transition to an alternative land use. Transition is likely to be a gradual process over time, where mitigating hazards for a period is part of the transition process.

Adaptation options

Four themes of adaptation options have been defined for the Strategy, with a range of options that relate to avoiding, mitigating, and managing the risk of coastal hazards. The themes include:

1. Enhancing adaptive capacity
2. Planning updates
3. Modifying infrastructure
4. Coastal management and engineering.

The adaptation options across these themes are described in Table 5. More detailed descriptions of the options are provided in the Adaptation Actions sheets available on Council's Your Say website.


Aquatic Paradise

Theme	Adaptation options	Description	Adaptation Actions sheet number
Initiatives to enhance adaptive capacity	Community stewardship	Developing programs and partnerships to enhance stewardship of the coastline	Sheet 1
	Knowledge sharing	Facilitating knowledge sharing and education on hazards and adaptation	Sheet 2
	Monitoring	Monitoring changes in coastal hazard risk and effectiveness of adaptation	Sheet 3
Planning	Land use planning	Informing statutory planning and other plans Includes consideration of land purchase or land swap/relocation	Sheet 4
	Disaster management	Updating emergency response planning	Sheet 4
Modifying infrastructure	Increase infrastructure resilience	• Modifying critical infrastructure (e.g. raising floor levels) • Modifying drainage networks • Building resilient homes	Sheet 5
	Relocate infrastructure	Relocating critical infrastructure	Sheet 5
Coastal management and engineering	Dune protection and maintenance	Minimising dune disturbance, maintaining vegetation	Sheet 6
	Beach nourishment	Providing additional sand to the beach (scraping and/or importing sand)	Sheet 7
	Structures to assist with sand retention	Using structures (groynes) to help retain sand	Sheet 8
	Structures to dissipate wave energy	Constructing offshore breakwaters or artificial reefs to dissipate wave energy (submerged or exposed)	Sheet 9
	Last line of defence structures	Constructing seawalls/revetment walls	Sheet 10
	Structures to minimise inundation	Constructing levees/dykes	Sheet 11

Table 5. Adaptation options by theme

4.2 Adaptation response by locality

An adaptation response has been assigned for key localities across Redlands Coast.

The adaptation response takes into consideration what is at risk, for example land and assets, and how the risk is changing over time – the emerging risk profile (present-day, 2070, and 2100)[8] (Table 6).

Mitigation is already ongoing at a number of locations, including on the Southern Moreton Bay Islands and North Stradbroke Island (Minjerribah), typically in response to shoreline erosion.

CHAS Zone	Present-day	2040	2070	2100
Thorneside	Mitigate			
Birkdale	Monitor, maintain, and prepare	Mitigate		
Wellington Point	Monitor, maintain, and prepare		Mitigate	
Ormiston	Monitor, maintain, and prepare		Mitigate	
Cleveland	Monitor, maintain, and prepare	Mitigate		
Thornlands	Monitor, maintain, and prepare			
Victoria Point	Monitor, maintain, and prepare	Mitigate		
Redland Bay	Monitor, maintain, and prepare	Mitigate		
Coochiemudlo Island	Monitor, maintain, and prepare. Implement adopted SEMP actions		Mitigate	
Karragarra Island	Monitor, maintain, and prepare	Mitigate		
Lamb Island	Monitor, maintain, and prepare		Mitigate	
Macleay Island	Monitor, maintain, and prepare		Mitigate	
Russell Island	Monitor, maintain, and prepare	Mitigate		
Dunwich	Monitor, maintain, and prepare		Mitigate	
Amity Point	Mitigate			
Point Lookout	Monitor, maintain, and prepare			

*Note: Monitor, maintain, and prepare includes maintaining existing works and implementing actions already planned, and continuing to monitor the risk profile.

Table 5. Adaptation response for each locality

4.3 Determining adaptation actions

A range of actions has been defined to enable a strategic approach to coastal hazard adaptation across Redlands Coast. A suite of priority actions across the four themes (Table 7) have been defined at:

- The city-wide scale (outlined in Section 5)
- The locality scale as part of the adaptation response pathway (outlined in Section 6).

The priority actions were informed by initial screening of options, as well as a detailed cost-benefit analysis (CBA) for tailored coastal engineering options[9].

While there is not a strong economic case at present-day for investing in the majority of options considered, there are other drivers for considering the suitability of these options and willingness to invest. This includes broader strategic initiatives to maintain access and local uses and values. The economic case for investment does strengthen by 2070 and 2100.

Baseline actions of dune protection and maintenance, and mangrove protection and enhancement, will be critical for enhancing resilience, and there is benefit in commencing trials early to monitor effectiveness and update economic assessments accordingly in the future.

Actions across capacity building, land use planning, and commencing nature-based trials and adaptation options are the core focus for most localities, combined with some site-specific targeted investigations to inform future updates to the adaptation pathways.

Results may also change over time and should be the subject of future Strategy updates.

[8]As per technical investigations in the Phase 5, 6 and 7 summary reports (RCC 2019e, 2020a, 2020b)

[9]Refer Phase 7 summary report (RCC 2020b)

5 City-wide actions summary

The Coastal Hazard Adaptation Strategy priority actions across the region include actions relevant to the four themes identified for the Strategy:

1. Initiatives to enhance adaptive capacity
2. Planning
3. Modifying infrastructure
4. Coastal engineering and management

Priority city-wide 5–10-year actions for each of these themes are summarised in Table 7, with some additional information/guidance in the Adaptation Actions sheets available on Council's Your Say website.

Adaptation response and actions specific to different localities across the region are provided in the location summaries (Section 6).


South Gorge Beach, North Stradbroke Island (Minjerribah)

Theme	Strategic action no.	2020 Priority strategic actions (completed within 5–10 years)
1. Adaptive capacity initiatives	1.1 Coastal resilience stewardship program	1.1.1 Establish coastal resilience program and designated program officer role for the stewardship program and broader Coastal Hazard Adaptation Strategy implementation 1.1.2 Establish and implement the stewardship program, including coordination of location-based activities to enhance adaptive capacity. This includes environmental enhancement (vegetation - mangroves and dune systems), signage, and information (linked to actions 1.2, 1.3, 1.4 and locality based actions) 1.1.3 Investigate social vulnerabilities and adaptive capacity needs for the coast, and identify actions to enhance resilience in particular related to inundation hazards and access/services disruption 1.1.4 Seek co-funding/resources for further initiatives
	1.2 Knowledge sharing	1.2.1 Identify networks/forums for knowledge sharing (internal and external) 1.2.2 Generate communication materials (on Strategy implementation), including the role of mangrove and dune systems in mitigating coastal hazards, pilots of nature-based solutions, and resilient homes 1.2.3 Facilitate training/education workshops/events, focusing on nature-based solutions (mangroves, dunes, living shorelines), and resilient homes 1.2.4 Co-ordinate cross-agency information sharing 1.2.5 Create network of signage about coastal resilience at key locations (linked to action 1.1.2)
	1.3 Monitoring	1.3.1 Establish photo point monitoring system (coast snap or similar) at key locations (linked to locality based actions) 1.3.2 Create a platform/process for data management 1.3.3 Develop monitoring/evaluation metrics for implementation of actions, and effectiveness of actions, including focus on living shoreline effectiveness (also a potential student project) 1.3.4 Establish drone survey (elevation and aerial imagery) monitoring (every five – 10 years), or other tailored monitoring and reporting needed to inform adaptive management and the 10-year planning scheme review 1.3.5 Establish photo competition for high tide level monitoring and link into existing tidal morning data sets (link to 1.1.2)
	1.4 Research	1.4.1 Establish collaboration with key universities and research centres to progress suitable actions in the Strategy 1.4.2 Apply for collaborative government funding grants for relevant actions 1.4.3 Identify key pilot sites for nature-based solutions where research partnerships/collaborations may be feasible

Theme	Strategic action no.	2020 Priority strategic actions (completed within 5–10 years)
2. Planning	2.1 Land use planning	2.1.1 Formally adopt the Strategy to inform planning across Council 2.1.2 Investigate incorporating updated and refined Erosion Prone Area mapping into the Coastal Protection (Erosion Prone Areas) Overlay through a future amendment to the Redland City Plan 2.1.3 Review development outcomes in hazard areas to assess whether amendments are needed to overlay codes to ensure development accounts for predicted or emerging hazards and future planned infrastructure upgrades and mitigation works
	2.2 Disaster management	2.2.1 Use the updated Erosion Prone Area and storm tide mapping, risk assessment, and economic implications to update disaster management plans
3. Modifying infrastructure	3.1 Build resilience	3.1.1 Review at risk infrastructure and embed risk mitigation into current asset management plans. This could include 'betterment' at critical asset refurbishment/renewals points 3.1.2 Develop/update design guidelines for infrastructure (stormwater drainage assets, wastewater assets, water assets, waste assets, community and cultural assets, property assets, information and communication technology assets, roads, fleet assets, marine assets, parks and open space assets) 3.1.3 Promote resilient homes within the community and building sector (link in with action 1.2) 3.1.4 Review opportunities to improve drainage networks in locations where the risk of inundation for infrastructure is high (embedded within asset management plan) 3.1.5 Undertake more detailed risk assessments of specific assets that create 'pinch point' risk of failure of broader systems (infrastructure networks)
4. Coastal management and engineering	4.1 Environmental enhancement and living shorelines – pilot studies	4.1.1 Commence environmental enhancement program (vegetation, mangroves) at three pilot sites (linked to action 1.1.2 and location-based actions) 4.1.2 Pilot living shoreline establishment at two pilot sites (as per location-based actions) 4.1.3 Pilot dune protection and maintenance program at two pilot sites (linked to action 1.1.2) 4.1.4 Extend the environmental enhancement and maintenance programs to all relevant areas (linked to outcomes of 1.3)
	4.2 Additional shoreline erosion mitigation actions	4.2.1 Implement Shoreline Erosion Management Plan (SEMP) for Amity Point and Coochiemudlo Island 4.2.2 Implement planned works incorporated into present-day capital work planning and embedded in adaptation pathways for relevant locations 4.2.3 Clarify Council perspectives and potential funding models/mechanisms for open coast erosion mitigation works that have differing levels of private and public benefit. Establish a more formal policy on co-funding where applicable (e.g. a special levy) 4.2.4 Review and update the CBA and associated adaptation pathway options every 10 years for open coast erosion mitigation works (in combination with review of the Strategy, and linked to outcomes of 1.3 and 4.1)
	4.3 Additional inundation mitigation actions	4.3.1 Investigate the concept design of works to provide increased protection from tidal area expansion and storm tide inundation for the Raby Bay canal estate. Establish indicative costings to inform any 'betterment' opportunities that arise from disaster relief funding following actual events 4.3.2 Review and update the CBA and associated adaptation pathway options every 10 years for works to mitigate inundation (in combination with review of the Strategy) – linked to outcomes of action 2.1.5

Table 7. City-wide actions

6 Location summaries

Adaptation pathways for Redland City Council suburbs are summarised over the following pages.

In addition to applying the city-wide actions, the location-based pathways include:

- Two focus sites for environmental stewardship activities - to enhance vegetation and mangroves, and monitor the effectiveness of these actions for mitigating coastal hazard risk
- Two trial sites for the design and establishment of living shorelines, using combined vegetation and minor structural protection works and monitoring the effectiveness of this approach for mitigating coastal hazard risk
- Maintenance and upgrades for existing shoreline protection works and new works for relevant locations
- Reviewing the effectiveness of adaptation actions and hazard mitigation works and using this information to inform updates to the long-term adaptation pathway

All actions in the pathways are listed to be implemented by a certain planning horizon (Present day, 2040, 2070 & 2100) meaning on or before this planning horizon these actions should been undertaken unless triggered earlier.

Southern Moreton Bay Islands

Thorneside

Thorneside is located at the northern end of the Redlands Coast coastal zone, and it is bounded by Tingalpa Creek to the northwest (Figure 7).

Low-lying areas adjacent to the river frontage and bay foreshore may be increasingly exposed to storm tide inundation and expanding tidal areas in the future.

Existing areas of mangroves are protecting adjacent land and assets from erosion and inundation hazards. Sections of the bayside shoreline have additional protection measures, including seawalls (rock and geotextile).

The present-day adaptation response for Thorneside is to mitigate coastal hazard risk, and continue mitigation actions into the future.

The adaptation pathway includes a focus on environmental enhancement, upgrading and extending existing seawall protection works, and reviewing the adaptation pathway over time, and considering future alternatives (Table 8). City-wide actions also apply where relevant to this locality.

Figure 7. Thorneside

	Present-day	By 2040	By 2070	By 2100
THORNESIDE	Mitigate			
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning	As per city-wide actions as applicable Review and investigate planning measures for long-term inundation hazard mitigation in developed areas			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Complete concept designs and approvals and implement upgrade for Queens Esplanade seawall – replacement and extension of existing geo-bag seawall	Maintain shoreline protection works	Review adaptation pathway options Undertake concept planning for additional structural protection or upgrades with reference to planning directions: may include seawall upgrades/possible levee/road and services raising	Implement additional structural protection/ upgrades or alternative adaptation actions
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway.			

Table 8. Thorneside adaptation pathway

Birkdale

Birkdale is located towards the northern end of the Redlands Coast coastal zone, and includes the bayside areas either side of the Tarradarrapin Creek estuary mouth, and estuarine areas to the south west along Tingalapa Creek (Figure 8).

Low-lying areas adjacent to the bay foreshore, the canal estates, and creek river frontage may be increasingly exposed to storm tide inundation and expanding tidal areas in the future.

Existing areas of mangroves are protecting adjacent land and assets from erosion and inundation hazards. The majority of the bayside shoreline has additional protection measures, including seawalls and revetments along the bay frontage and the canal estates.

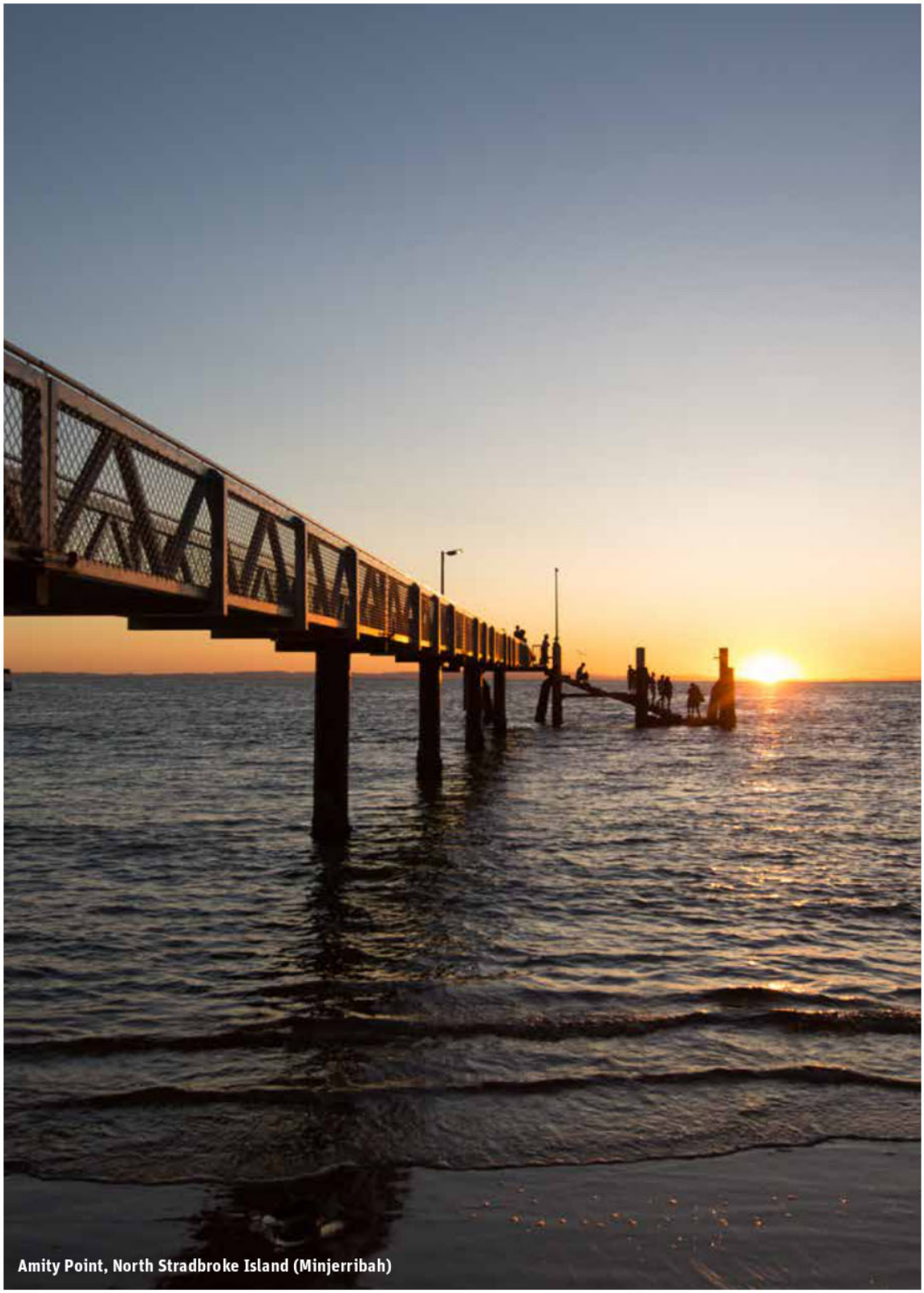
The present-day adaptation response for Birkdale is to continue to monitor coastal hazard risk (and maintain existing arrangements), and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on maintaining existing shoreline protection works, trialling a living shoreline design, and reviewing the adaptation pathway over time, and considering future alternatives (Table 9). City-wide actions also apply where relevant to this locality.

Figure 8. Birkdale

	Present-day	By 2040	By 2070	By 2100
BIRKDALE	Monitor, maintain, and prepare	Mitigate		
Enhance adaptive capacity	As per city-wide actions as applicable, including: • Establish Aquatic Paradise Park (east) or Three Paddocks Park as a focus site for action 1.2.5 - enhance signage on hazards and role of vegetation • Establish Aquatic Paradise Park (east) or Three Paddocks Park as a key site for action 1.3.1 - a photo monitoring station (Coast snap to similar) to monitor potential living shoreline site, and potential research collaboration – action 1.4.1			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Maintain existing shoreline protection works and integrate into living shoreline design Develop concept design and monitoring plan for living shoreline at Aquatic Paradise Park (east) or Three Paddocks Park (link to action 4.1.2 and 1.3.3)	Implement living shoreline design	Review of effectiveness of living shoreline design Review pathway options Concept planning for additional structural protection or upgrades (if applicable)	Review of effectiveness of living shoreline design Review pathway options Implement additional structural protection or upgrades (if applicable) Undertake feasibility study for potential tidal barrier for canal estate
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Living shoreline does not achieve expected level of service → Pathway is reviewed and planning for additional works may commence • Water levels at canal estate are too high too often by 2100 → Feasibility is reviewed for a tidal barrier for canal estate			

Table 9. Birkdale adaptation pathway



Amity Point, North Stradbroke Island (Minjerribah)

Wellington Point

Wellington Point extends from Three Paddocks Park in the west to Hilliards Creek to the south and includes the bayside frontage around Wellington Point and extensive estuarine and wetland areas to the southeast (Figure 9).

The point is at a higher elevation than adjacent areas, however low-lying areas on the west side of the point, and creek frontage to the south east, may be increasingly exposed to storm tide inundation and expanding tidal areas in the future.

Existing areas of mangroves are protecting adjacent land and assets from erosion and inundation hazards. Limited sections of the shoreline have additional protection measures, including seawalls and revetments.

The present-day adaptation response for Wellington Point is to continue to monitor coastal hazard risk, and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on maintenance of existing coastal shoreline works, and reviewing the adaptation pathway over time and considering future alternatives, including beach nourishment at the reserve, and new protection works for critical assets (Table 10). City-wide actions also apply where relevant to this locality.

Figure 9. Wellington Point

Foreshore area at Wellington Point

	Present-day	By 2040	By 2070	By 2100
WELLINGTON POINT	Monitor, maintain, and prepare		Mitigate	
Enhance adaptive capacity	As per city-wide actions as applicable, including: Establish Wellington Point Recreation Reserve as a key site for action 1.3.1 - a photo monitoring station (CoastSnap or similar)			
Planning	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Modifying infrastructure	As per city-wide actions as applicable			
Coastal engineering and management	Maintain existing shoreline protection works Develop concept design and approvals (with triggers) for the western end of the Wellington Point Recreation Reserve beach (Champion Lane) Establish monitoring site for beach dynamics at Wellington Point Recreation Reserve beach (linked action 1.3.1) Confirm approach to providing technical support/ guidance to private owners to self-manage private seawalls	Maintain existing shoreline protection works Review erosion risk to causeways and develop concept design for additional protection works (if applicable) Review beach dynamics/ erosion rate of change at Wellington Point Recreation Reserve. Develop concept design for beach nourishment program (if feasible) Provide technical support/ guidance to private owners to self-manage private seawalls	Maintain and upgrade existing shoreline protection works – including a review of seawall heights (raised or wave barrier added) Review pathway options Implement new seawalls at the Wellington Point Recreation Reserve beach Implement beach nourishment at Wellington Point Recreation Reserve (if triggered) Prepare concept design and approvals for additional hazard mitigation works (seawall or other) including for Main Road, Wellington Point, and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Nourishment program and/or additional mitigation works may commence			

Table 10. Wellington Point adaptation pathway

Ormiston

Ormiston is situated in the central part of the Redlands Coast mainland, bounded by Hilliards Creek to the west (Figure 10).

Existing areas of mangroves span the majority of the coastal and estuarine frontage, and are protecting adjacent land and assets from erosion and inundation hazards.

Only a limited extent of low-lying area around the estuarine and bayside frontage is likely to be exposed to storm tide inundation and expanding tidal areas in the future. Limited sections of the shoreline have additional protection measures, including seawalls and revetments.

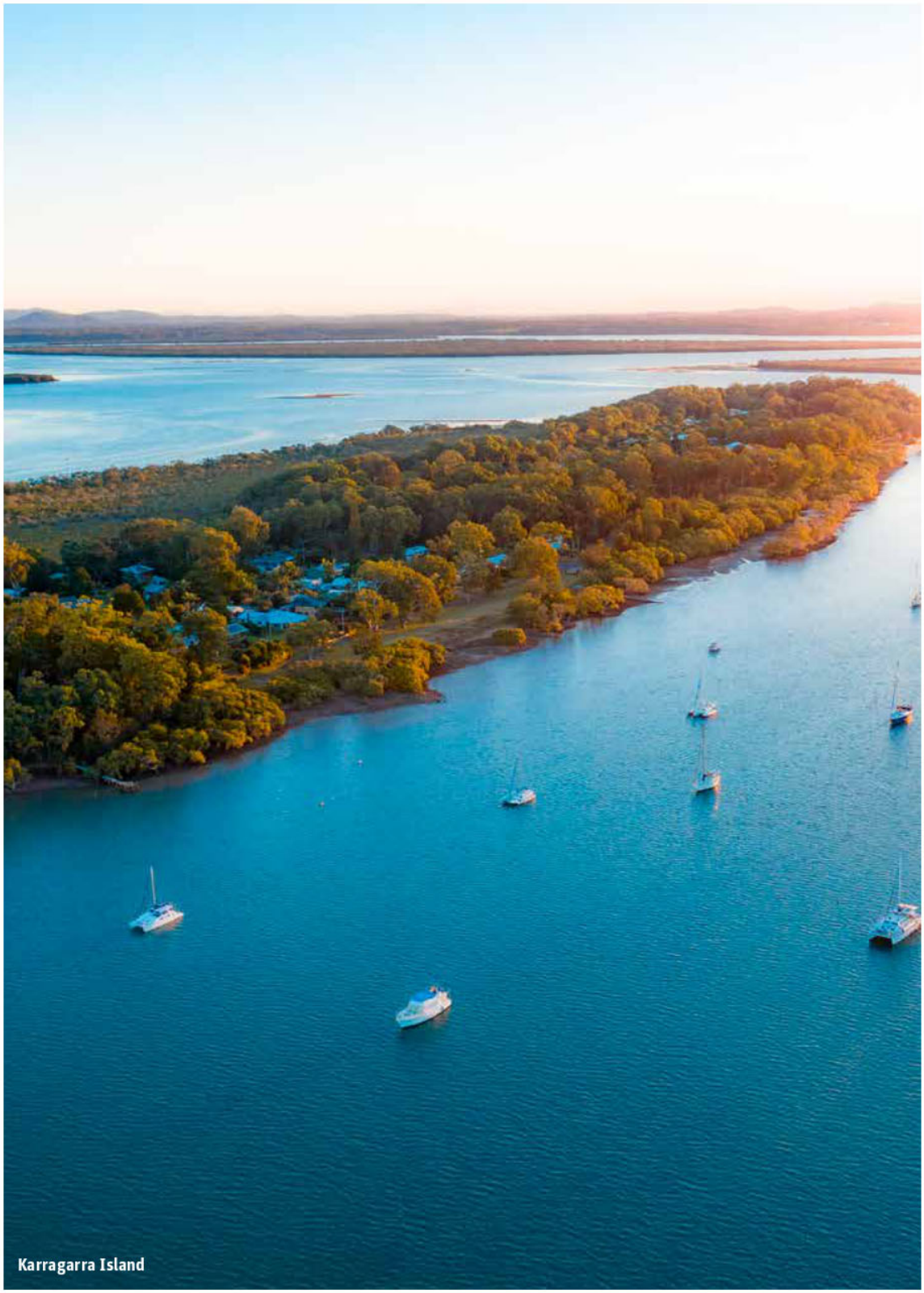
The present-day adaptation response for Ormiston is to continue to monitor coastal hazard risk, and begin preparations for additional hazard mitigation in the longer term.

The adaptation pathway includes a focus on protecting the existing natural coastal hazard defences (mangroves and vegetation), maintaining existing coastal protection structures, and reviewing the adaptation pathway over time, and considering future alternatives (Table 11). City-wide actions also apply where relevant to this locality.

Figure 10. Ormiston

	Present-day	By 2040	By 2070	By 2100
ORMISTON	Monitor, maintain, and prepare		Mitigate	
Enhance adaptive capacity	As per city-wide actions as applicable, including: Establish Raby Esplanade Park as a focus site for action 1.2.5 - enhance signage on hazards and role of vegetation			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Maintain existing shoreline protection works and monitor effectiveness	Review effectiveness of existing shoreline protection works Prepare concept design and approvals for upgrade of existing shoreline protection works (seawalls), including seawall upgrade at Sleath Street	Review pathway options Implement upgrade to existing shoreline protection works (if triggered) Prepare concept design and approvals for upgrades and/ or additional hazard mitigation works (seawall or other) if applicable, and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession or exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Planning and implementation of additional mitigation works or alternatives may commence			

Table 11. Ormiston adaptation pathway



Karragarra Island

Cleveland

Cleveland is situated in the central part of the Redlands Coast mainland, including the canal estates of Raby Bay, Cleveland Point, and the bayside frontage extending south (Figure 11).

Existing areas of mangroves along the bay frontage south of Cleveland Point are protecting adjacent land and assets from erosion and inundation hazards. The canal estates and Cleveland Point waterfront areas have extensive shoreline infrastructure protection, including seawalls, revetments, and groynes.

Low-lying areas including Raby Bay and bayside frontage to the south are likely to be exposed to storm tide inundation and expanding tidal areas in the future.

The present-day adaptation response for Cleveland is to continue to monitor coastal hazard risk, and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on maintenance of existing shoreline protection works, trialling a living shoreline design, and reviewing the pathway over time and considering future alternatives including new protection works for critical assets (Table 12). City-wide actions also apply where relevant to this locality.

Figure 11. Cleveland

Cleveland Point

	Present-day	By 2040	By 2070	By 2100
CLEVELAND	Monitor, maintain, and prepare	Mitigate		
Enhance adaptive capacity	As per city-wide actions as applicable, including: • Establish Oyster Point Park as a focus site for action 1.2.5 - enhance signage on hazards and role of mangroves and vegetation • Establish Oyster Point Park as a focus site for action 1.3.1 - a photo monitoring station (CoastSnap to similar) to monitor potential living shoreline site, and potential research collaboration – action 1.4.1			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3 Undertake a feasibility study on elevating Shore St North			
Coastal engineering and management	Maintain existing shoreline protection works Develop concept design and monitoring plan for living shoreline at Oyster Point Park (link to action 4.1.2 and 1.3.3) Confirm approach to providing technical support/ guidance to private owners to self-manage private seawalls	Maintain existing shoreline protection works Implement living shoreline design Provide technical guidance to owners of private seawalls	Maintain and upgrade existing protection works Review of effectiveness of living shoreline design Review pathway options Prepare concept design and approvals for upgrades and/ or additional hazard mitigation works (if applicable), and implement (if triggered), including for Cleveland Point and Raby Bay bayside Undertake feasibility study (if applicable) for potential tidal barrier for canal estates at Raby Bay, Columbus Canal and Ross Creek	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Living shoreline does not achieve expected level of service → Pathway is reviewed and planning for additional works may commence • Water levels at canal estate are too high too often by 2100 → Feasibility is reviewed for a tidal barrier for canal estate			

Table 12. Cleveland adaptation pathway

Thornlands

Thornlands extends south of Cleveland to Eprapah Creek (Figure 12).

Existing areas of mangroves along the bay frontage are protecting adjacent land and assets from erosion and inundation hazards.

Low-lying areas are likely to be exposed to storm tide inundation and expanding tidal areas in the future. However, very limited public or private assets are expected to be impacted.

The adaptation response for Thornlands is to continue to monitor coastal hazard risk. The adaptation pathway includes a focus on protecting existing natural coastal hazard defences (mangroves and vegetation) and reviewing the adaptation pathway over time (Table 13). City-wide actions also apply where relevant to this locality.

Figure 12. Thornlands

	Present-day	By 2040	By 2070	By 2100
THORNLANDS	Monitor, maintain, and prepare			
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning updates	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable			
Coastal engineering and management	Maintain existing arrangements and monitor	Review effectiveness of existing arrangements		
Other considerations	Establish indicators to monitor level of acceptable service and trigger change of pathway Examples include: • Mangroves and shoreline vegetation is unstable/condition declining and/or risk exposure is increasing → Pathway reviewed			

Table 13. Thornlands adaptation pathway

Victoria Point

Victoria Point is bounded by Epapah Creek in the north and Moogurrapum Creek to the south (Figure 13).

Existing areas of mangroves along the creek frontage and limited areas of the bayside frontage are protecting adjacent land and assets from erosion and inundation hazards. The majority of the bayside shoreline has additional protection measures including seawalls (rock and geotextile).

Low-lying areas adjacent to the river frontage and bay foreshore may be increasingly exposed to storm tide inundation and expanding tidal areas in the future.

The present-day adaptation response for Victoria Point is to continue to monitor coastal hazard risk, and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on maintaining existing shoreline protection works, implementing new works, and reviewing the adaptation pathway over time and considering future alternatives (Table 14). City-wide actions also apply where relevant to this locality.

Figure 13. Victoria Point

	Present-day	By 2040	By 2070	By 2100
VICTORIA POINT	Monitor, maintain, and prepare	Mitigate		
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3 Develop concept design for Victoria Point Waste Water Treatment Plan protection (possible levee or alternative required) and implementation (when triggered)			
Coastal engineering and management	Maintain existing shoreline protection works Develop concept designs and approvals for beach nourishment and rock groynes at Wilson Esplanade (Wilson Street to Barron Street) Develop concept designs and approvals for seawall at Wilson Esplanade (Barron Street to Les Moore Park) Confirm approach to providing technical support/ guidance to private owners to self-manage private seawalls	Maintain existing shoreline protection works Implement beach nourishment and groyne construction (Wilson Street to Barron Street) Implement seawall construction (Barron Street to Les Moore Park) (when triggered) Provide technical support/ guidance to private owners to self-manage private seawalls	Review pathway options Prepare concept design and approvals for upgrades and/ or additional hazard mitigation works (if applicable), and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway. Examples include: • Rate of shoreline recession exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Nourishment program and/or additional mitigation works may commence			

Table 14. Victoria Point adaptation pathway

Redland Bay

Redland Bay is located at the southern end of the Redlands Coast mainland, extending from Moogurrapum Creek to the north to the Logan River to the south (Figure 14).

Existing areas of mangroves along the creek and bayside frontage are protecting adjacent land and assets from erosion and inundation hazards. Sections of the bayside shoreline have additional protection measures, including seawalls and revetments.

Low-lying areas adjacent to the creek frontage and bay foreshore may be increasingly exposed to storm tide inundation and expanding tidal areas in the future.

The present-day adaptation response for Redland Bay is to continue to monitor coastal hazard risk, and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on environmental stewardship, maintaining and upgrading existing shoreline protection works and preparation for new works, and reviewing the adaptation pathway over time and considering future alternatives (Table 15). City-wide actions also apply where relevant to this locality.

Figure 14. Redland Bay

Foreshore area at Redland Bay

	Present-day	By 2040	By 2070	By 2100
REDLAND BAY	Monitor, maintain, and prepare	Mitigate		
Enhance adaptive capacity	As per city-wide actions as applicable, including: • Establish Sel Outridge Park as a focus site for action 1.1.2 - environmental enhancement stewardship • Establish Sel Outridge Park as a focus site for action 1.2.5 - enhance signage on hazards and role of mangroves and vegetation			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Maintain existing shoreline protection works Establish environmental enhancement trial site and monitoring program at Sel Outridge Park (link to action 4.1.1), and develop concept design for vegetation enhancement Investigate foreshore protection management options for the foreshore from Bay Street to Boundary Street Confirm approach to providing technical support/ guidance to private owners to self-manage private seawalls	Maintain existing shoreline protection works Implement vegetation management concept design for Sel Outridge Park Implement foreshore protection management option/s - Bay Street to Boundary Street (if triggered) Undertake a feasibility study for a seawall upgrade north and south of Weinam Creek, and Talburpin Point Provide technical support/ guidance to private owners to self-manage private seawalls	Review effectiveness of environmental enhancement trials Review pathway options Prepare concept design and approvals for upgrades and/ or additional hazard mitigation works or upgrades – living shoreline, seawall or other if applicable, and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Environmental enhancement does not achieve expected level of service, rate of shoreline recession or exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Planning for additional mitigation works or alternatives may commence			

Table 15. Redland Bay adaptation pathway

Coochiemudlo Island

Coochiemudlo Island is a bay island situated off the central Redlands Coast mainland (Figure 15).

The east and southern coastline is predominantly open sandy shorelines, and extensive mangrove communities span the western shoreline.

The sandy coastline is prone to open coast erosion processes and a Shoreline Erosion Management Plan has recently been developed to mitigate erosion risk. Limited low-lying areas of the island may also be increasingly exposed to storm tide inundation and expanding tidal areas in the future.

The present-day adaptation response for Coochiemudlo Island is to continue to monitor coastal hazard risk, and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on implementing the Shoreline Erosion Management Plan and reviewing the adaptation pathway over time and considering future alternatives (Table 16). City-wide actions also apply where relevant to this locality.

Figure 15. Coochiemudlo Island

	Present-day	By 2040	By 2070	By 2100
COOCHIEMUDLO ISLAND	Monitor, maintain, and prepare Implement adopted Shoreline Erosion Management Plan actions.		Mitigate	
Enhance adaptive capacity	As per city-wide actions as applicable, including: • Establish Norfolk Beach as a focus site for action 1.1.2 – environmental stewardship (dune protection and enhancement)			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3		Undertake feasibility study for raising Victoria Parade South or alternative adaptation options, and implementation triggers	
Coastal engineering and management	Implement Shoreline Erosion Management Plan Develop concept plan for dune protection and enhancement activities, and implement (focus on trial site at Norfolk Beach)	Review and update Shoreline Erosion Management Plan Undertake a beach and dune nourishment feasibility study at Victoria Parade East and other relevant locations	Review pathway options Implement beach nourishment (if triggered) Prepare concept design and approvals for upgrades and/or additional hazard mitigation works (if applicable), and implement (if triggered), including potential seawalls at Victoria Parade East and Main Beach	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession exceeds defined point → Nourishment program or alternative works commence			

Table 16. Coochiemudlo Island adaptation pathway

Karragarra Island

Karragarra Island is a bay island situated off the southern Redlands Coast mainland (Figure 16).

Vegetation, including mangroves, spans several areas of the shoreline, and pockets of sandy beaches, are present at the northwest end of the island.

The open coast and limited low-lying areas (mainly the central parts of the island) are likely to be increasingly exposed to erosion and inundation into the future.

The present-day adaptation response for Karragarra Island is to continue to monitor coastal hazard risk and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes maintaining arrangements, preparations for potential new shoreline protection works, and reviewing the adaptation pathway over time, and considering future alternatives including, infrastructure protection works in the long term (Table 17). City-wide actions also apply where relevant to this locality.

Figure 16. Karragarra Island

	Present-day	By 2040	By 2070	By 2100
KARRAGARRA ISLAND	Monitor, maintain, and prepare	Mitigate		
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Maintain existing arrangements and monitor effectiveness Prepare design and approvals for foreshore protection management option/s at The Esplanade east of the ferry terminal, including triggers for implementation Implement localised foreshore protection management, as required	Maintain existing arrangements and monitor effectiveness Implement foreshore protection management option/s if triggered Feasibility study for additional structural protection works for The Esplanade – Maryanne Street	Review pathway options Prepare concept design and approvals for upgrades and/or additional hazard mitigation works (if applicable), and implement (if triggered), including for The Esplanade – Maryanne Street, and south side of the Island	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession or exceeds defined point → Planning and implementation of additional mitigation works or alternatives may commence			

Table 17. Karragarra Island adaptation pathway

Lamb Island

Lamb Island is a bay island situated off the southern Redlands Coast mainland, separated from MacLeay Island by a narrow canal (Figure 17).

Vegetation, including mangroves, spans several areas of the shoreline. Limited low-lying areas (mainly the northern parts of the island) are likely to be increasingly exposed to erosion and inundation into the future.

The present-day adaptation response for Lamb Island is to continue to monitor coastal hazard risk and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes scoping of additional shoreline protection works, reviewing the adaptation pathway over time, and considering future alternatives (Table 18). City-wide actions also apply where relevant to this locality.

Figure 17. Lamb Island

	Present-day	By 2040	By 2070	By 2100
LAMB ISLAND	Monitor, maintain, and prepare		Mitigate	
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Maintain existing arrangements and monitor effectiveness	Maintain existing arrangements and monitor effectiveness Feasibility/scoping study for additional structural protection works for critical assets/key access roads	Review pathway options Prepare concept design and approvals for upgrades and/or additional hazard mitigation works (if applicable), and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession or exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Planning and implementation of additional mitigation works or alternatives may commence			

Table 18. Lamb Island adaptation pathway

Macleay Island

Macleay Island is one of the larger inner-bay islands situated off the southern end of the Redlands Coast mainland (Figure 18).

Vegetation, including mangroves, spans several areas of the shoreline, interspersed with limited pockets of sandy beaches. There are localised areas with additional shoreline infrastructure protection, such as seawalls.

Limited low-lying areas of the island are likely to be increasingly exposed to erosion and inundation into the future.

The present-day adaptation response for Macleay Island is to continue to monitor coastal hazard risk and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes scoping of additional shoreline protection works, reviewing the adaptation pathway over time, and considering future alternatives (Table 19). City-wide actions also apply where relevant to this locality.

Figure 18. Macleay Island

	Present-day	By 2040	By 2070	By 2100
MACLEAY ISLAND	Monitor, maintain, and prepare		Mitigate	
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3		Undertake feasibility/concept design (and implementation if triggered) to raise road level at Pine Gate Place and Calm Water Crescent; maintain access to Perulpa Island	
Coastal engineering and management	Maintain existing arrangements and monitor effectiveness	Maintain existing arrangements and monitor effectiveness Develop scope for a site management plan to mitigate erosion and storm tide inundation at Sand Piper beach, with a focus on revegetation Undertake feasibility/ scoping study for additional structural protection works for critical assets/key access roads	Review pathway options Implement site management plan for Sand Piper beach (if triggered) Prepare concept design and approvals for upgrades and/or additional hazard mitigation works (if applicable), including for key access roads, and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession or exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Planning and implementation of additional mitigation works or alternatives may commence			

Table 19. Macleay Island adaptation pathway

Russell Island

Russell Island is the largest of the inner-bay islands situated toward the southern extent of the Redland City LGA (Figure 19).

Vegetation, including mangroves, spans several areas of the shoreline. There are localised areas with additional shoreline infrastructure protection (seawalls).

Low-lying areas of the island, particularly the southern areas of the island, are likely to be increasingly exposed to erosion and inundation into the future.

The present-day adaptation response for Russell Island is to continue to monitor coastal hazard risk and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on environmental stewardship, maintaining existing shoreline protection works and preparation for new works, and reviewing the adaptation pathway over time and considering future alternatives (Table 20). City-wide actions also apply where relevant to this locality.

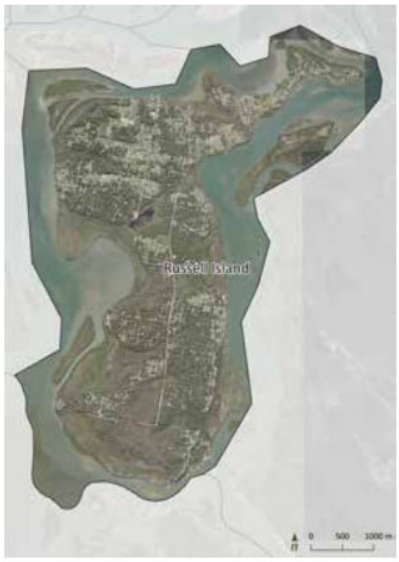


Figure 19. Russell Island

Jock Kennedy Park, Russell Island

	Present-day	By 2040	By 2070	By 2100
RUSSELL ISLAND	Monitor, maintain, and prepare	Mitigate		
Enhance adaptive capacity	As per city-wide actions as applicable, including: • Establish The Boulevard (south east of the island) as a focus site for action 1.1.2 - environmental enhancement stewardship • Establish The Boulevard (south east of the island) as a focus site for action 1.2.5 - enhance signage on hazards and role of mangroves and vegetation			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3		Undertake feasibility/concept design (and implementation if triggered) to raise roads, as required	
Coastal engineering and management	Maintain existing shoreline protection works Establish environmental enhancement trial site and monitoring program at The Boulevard (link to action 4.1.1), and develop concept design for vegetation enhancement Finalise concept design and approvals for planned seawalls at Rocky Point Park (Glendale Road) Confirm approach to providing technical support/ guidance to private owners to self-manage private seawalls	Maintain existing shoreline protection works Implement vegetation management concept design for The Boulevard Implement planned seawalls (when triggered) for Rocky Point Park Undertake concept design for coastal protection (seawalls) at Russell Island Ferry Terminal (east and west) Provide technical support/ guidance to private owners to self-manage private seawalls	Review effectiveness of environmental enhancement trials. Review pathway options Implement protection works (if triggered) for Russell Island Ferry Terminal (east and west) Prepare concept design and approvals for upgrades and/ or additional shoreline protection works – living shoreline, seawall or other if applicable, and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Environmental enhancement does not achieve expected level of service, rate of shoreline recession or exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Planning for additional mitigation works or alternatives may commence			

Table 20. Russell Island adaptation pathway

Dunwich

Dunwich is a small suburb located on the west side of North Stradbroke Island (Minjerribah), where the island's main ferry terminal is located (Figure 20).

The shoreline includes sandy beaches, vegetated areas, and open space with infrastructure services. There are several areas with existing shoreline infrastructure protection (seawalls/revetments).

Sandy sections of the coastline are likely to be increasingly prone to erosion in the future. Limited low-lying areas, particularly in the north around Bradbury's Beach, are likely to be increasingly exposed to storm tide inundation.

The present-day adaptation response for Dunwich is to continue to monitor coastal hazard risk and begin preparations for additional hazard mitigation in the future.

The adaptation pathway includes a focus on maintaining existing arrangements, monitoring effectiveness, and reviewing the adaptation pathway over time and considering future alternatives, including shoreline protection works in the long term (Table 21). City-wide actions also apply where relevant to this locality.

Figure 20. Dunwich

	Present-day	By 2040	By 2070	By 2100
DUNWICH	Monitor, maintain, and prepare		Mitigate	
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Maintain existing arrangements and monitor effectiveness	Maintain existing arrangements and monitor effectiveness	Review pathway options Prepare concept design and approvals for upgrades and/or additional hazard mitigation works (if applicable), and implement (if triggered)	
Other considerations	Establish indicators (with concept designs) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession or exceeds defined point, or effectiveness of existing works is below required levels of service or beyond design life → Planning and implementation of additional mitigation works or alternatives may commence			

Table 21. Dunwich adaptation pathway


Dunwich, North Stradbroke Island (Minjerribah)

Amity Point

Amity Point is a small suburb on the northwest tip of North Stradbroke Island (Minjerribah), facing the South Passage, a very dynamic channel separating Moreton Island (Mulgumpin) and North Stradbroke Island (Minjerribah) (Figure 21).

The majority of the shoreline has existing formal or informal structural protection works, including seawalls, flow-slide structures, revetments and groynes.

A Shoreline Erosion Management Plan has been recently adopted to provide a coordinated approach to mitigating ongoing erosion challenges. Limited low-lying areas may also be increasingly prone to storm tide inundation in the future.

The present-day adaptation response for Amity Point is to continue to mitigate coastal hazard risk, and begin preparations for additional hazard mitigation in the longer term.

The adaptation pathway includes a focus on Shoreline Erosion Management Plan implementation, and reviewing the adaptation pathway over time, and considering future alternatives, including infrastructure protection works in the long term (Table 22). City-wide actions also apply where relevant to this locality.

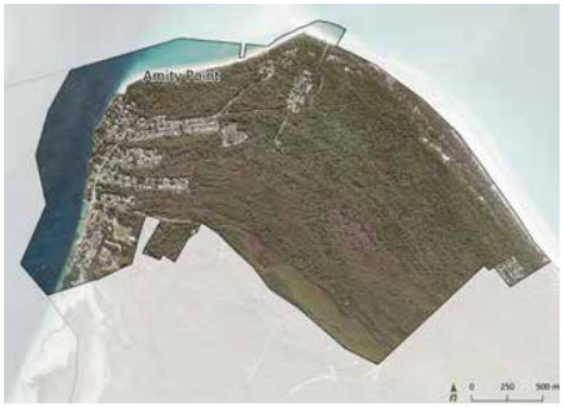


Figure 21. Amity Point

	Present-day	By 2040	By 2070	By 2100
AMITY POINT	Mitigate			
Enhance adaptive capacity	As per city-wide actions as applicable			
Planning	As per city-wide actions as applicable			
Modifying infrastructure	As per city-wide actions as applicable, including: Promote resilient homes program – linked to action 3.1.3			
Coastal engineering and management	Implement Shoreline Erosion Management Plan (SEMP) Confirm concept designs and approvals to upgrade the existing flow-slide barrier at Old Schoolhouse Park and Cabarita Park	Review and update Shoreline Erosion Management Plan Implement flow-slide barrier upgrades	Review pathway options Prepare concept design and approvals for upgrades and/or additional hazard mitigation works (if applicable), and implement (if triggered)	
Other considerations	Establish indicators (with implementation of SEMP) to monitor level of acceptable service and trigger change of pathway Examples include: • Rate of shoreline recession or damage to existing protection structures exceeds defined point → Planning for additional structural works or alternatives may commence			

Table 22. Amity Point adaptation pathway

Point Lookout

Point Lookout, the eastern-most suburb of North Stradbroke Island (Minjerribah) and Redland City, is located on an elevated rocky outcrop facing the Pacific Ocean (Figure 22).

The shoreline includes iconic sandy beaches that are naturally nourished by the sediment transport belt, which moves sand northwards along the east coast of Australia.

Long-term coastal hazard exposure to built assets is likely to be relatively low. However, the beach may be prone to episodic erosion events with storm activity.

The present-day adaptation response for Point Lookout is to continue to monitor coastal hazard risk into the future (Table 23).

Figure 22. Point Lookout

	Present-day	By 2040	By 2070	By 2100
POINT LOOKOUT	Monitor, maintain, prepare			
Enhance adaptive capacity	As per city-wide actions, include specific actions of: • Establish at Point Lookout as a focus site for action 1.2.5 - enhance signage on coastal hazards and the role of dunes and vegetation • Establish Point Lookout surf club as a key site for action 1.3.1 - a photo monitoring station (CoastSnap to similar) to monitor foreshore, beach and dune changes over time			
Planning	As per city-wide actions			
Modifying infrastructure	As per city-wide actions			
Coastal engineering and management	**Primary action:** Dune vegetation enhancement and monitoring, including Main Beach, Cylinder Beach and Flinders Beach			

Table 23. Point Lookout adaptation pathway

7 Implementation

Redland City Council will implement the Coastal Hazard Adaptation Strategy through a range of mechanisms including:

- An adaptive management framework
- Embedding outcomes and actions from the Strategy into existing Council process and activities
- Implementing new initiatives from the Strategy.

To guide implementation, a plan has been developed that includes additional detail on:

- Timeframes for actions
- Costing for priority 5–10 year actions
- Instruments, plans and processes (existing, modified, new) required to deliver adaptation options
- Potential funding sources
- Monitoring and evaluation
- Barriers to implementation and change management actions
- Partnership opportunities with stakeholders.

The roll out of the recommended implementation actions will be accompanied by ongoing community consultation where relevant.

The Coastal Hazard Adaptation Strategy will be reviewed every 10 years, commencing at least two years prior to the Planning Scheme Review, which is also undertaken on a 10-year timeframe. The next review of the Plan will be in 2030. The review will include consideration of:

✓ **Success of implementation to date:**

- Integration into Council and stakeholder plans and processes
- Delivery of on-ground activities
- Community perspectives
- Reduction in coastal hazard risk.

✓ **Triggers to update the Strategy including consideration of:**

- Any changes in the policy environment (e.g. sea level risk predictions, approach to defining coastal hazard areas)
- Updated technical information that may be available
- Any new development and landscape changes in the region.

Cylinder Beach, North Stradbroke Island (Minjerribah)

References

LGAQ & DEHP (2016) QCoast2100 Developing a Coastal Hazard Adaptation Strategy: Minimum Standards and Guideline for Queensland Local Governments. Local Governments Association Queensland and Department of Environment Heritage and Protection, QLD.

RCC (2019a). Redland City Council Coastal Hazard Adaptation Strategy Communication and Engagement Plan. Report by Quandamooka Yoolooburrabee Aboriginal Corporation (QYAC) for Redland City Council.

RCC (2019b). Redland City Council Coastal Hazard Adaptation Strategy Phase 2: Scoping Study. Report by QYAC for Redland City Council.

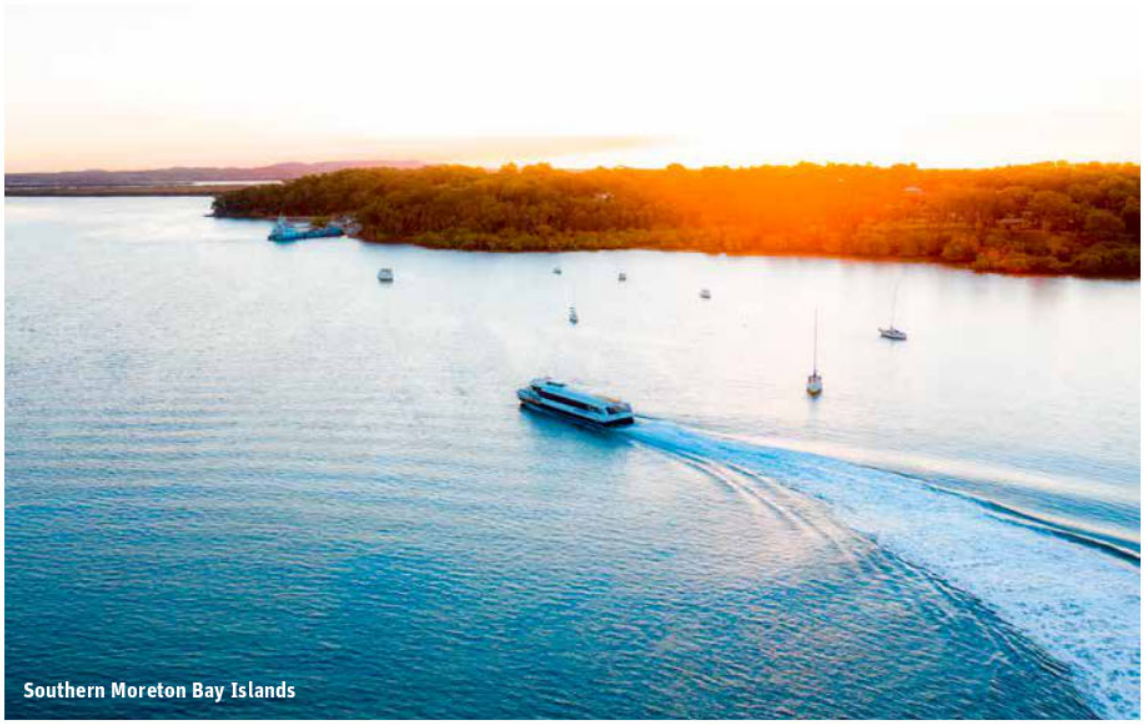
RCC (2019c). Redland City Council Coastal Hazard Adaptation Strategy Phase 3: Identify areas exposed to current and future coastal hazards. Report by QYAC and Healthy Land and Water for Redland City Council.

RCC (2019d). Redland City Council Coastal Hazard Adaptation Strategy Phase 4: Identify key assets potentially impacted by future coastal hazards. Report by QYAC and Healthy Land and Water for Redland City Council.

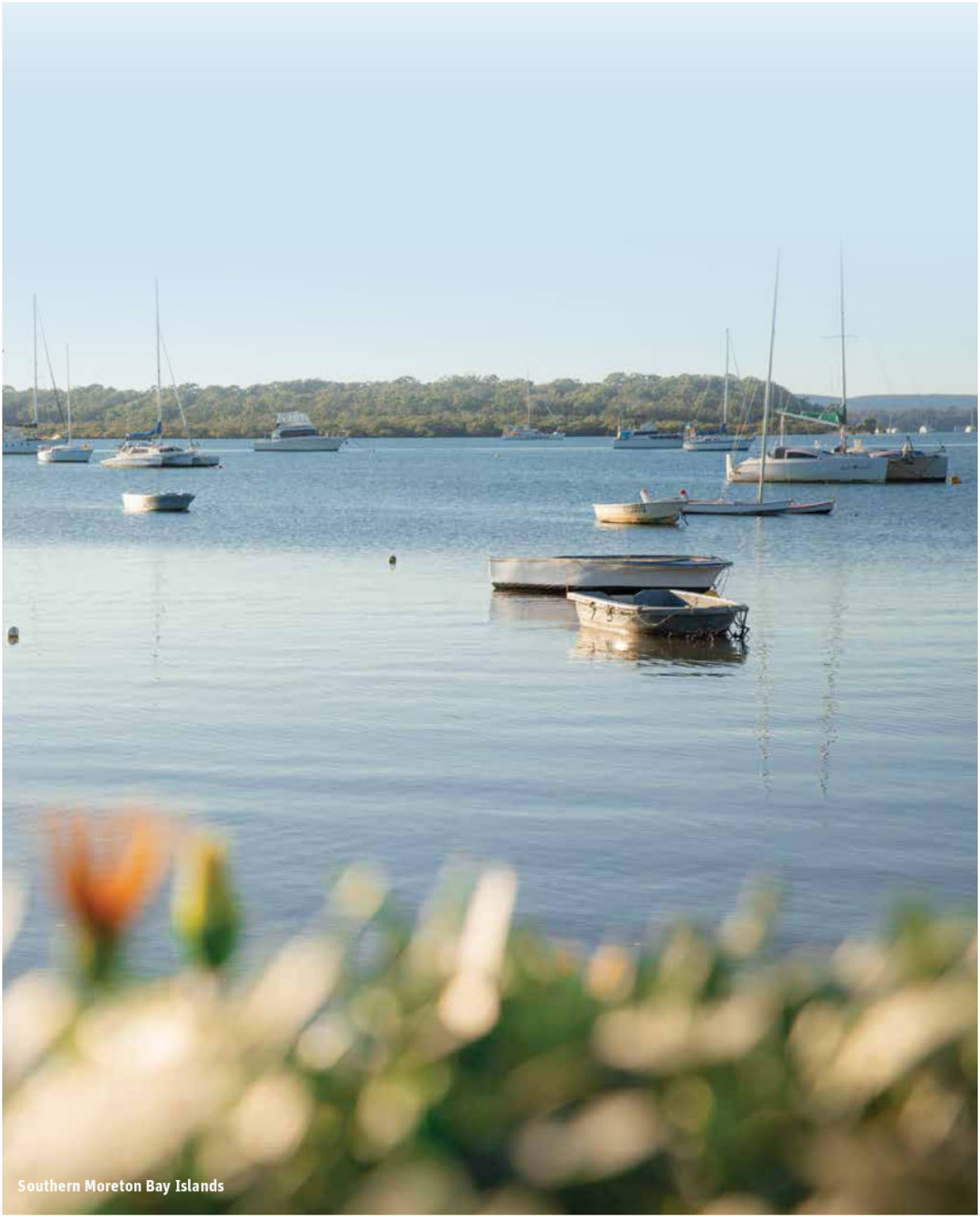
RCC (2019e). Redland City Council Coastal Hazard Adaptation Strategy Phase 5: Risk Assessment Redlands-Quandamooka Coast. Report by QYAC and Healthy Land and Water for Redland City Council.

RCC (2020a). Redland City Council Coastal Hazard Adaptation Strategy Phase 6: Summary Report. Report by Alluvium for Redland City Council.

RCC (2020b). Redland City Council Coastal Hazard Adaptation Strategy Phase 7: Summary Report. Report by Alluvium, Jeremy Benn Pacific (JBP) and Natural Capital Economics (NCE) for Redland City Council.



Southern Moreton Bay Islands



redland.qld.gov.au 3829 8999

01740_02/21

FACT SHEET 1

Terminology

This fact sheet provides a description of some of the more commonly used terms relevant to coastal hazard adaption.

The Coastal Setting

Coastal geomorphology - The physical shape, processes and patterns associated with the coast, including landforms, soils, and geology.

Landform - The natural shape of the Earth's surface. Landforms range in size from small features such as dunes and estuaries found at a local scale, to large features such as mountain ranges and coastal plains that may exist at regional scales.

Bay - A part of the coast where the land curves so that the sea is surrounded by land on three sides.

Barrier island - A long, relatively narrow island (often in a chain of islands) running parallel to the mainland, consisting of sand built up by the action of waves and currents and serving to protect the mainland coast from erosion by surf and tidal surges.

Shoreline - A designated line representing the landward limit of the sea. Methods used to define shorelines include fixed vertical levels or identifying the physical interface of water and land (e.g. with aerial photography).

Beach - The portion of the coastal zone periodically subjected to wave action. The seaward limit of a beach is typically defined as the spring low tide line, while the landward limit, as the vegetation line.

Tides - The regular rise and fall of the water surface resulting from gravitational attraction of the moon and sun and other astronomical bodies acting upon the rotating Earth.

Relative sea level - Sea level is measured by an official tide gauge with respect to the land upon which it is situated.

Sea level rise - An increase in the mean level of the ocean.

Coastal Hazards

Coastal hazards - Natural coastal processes that may negatively impact on the natural environment and human use of the coastal zone. Hazards include coastal erosion, storm tide inundation, and inundation due to sea-level rise.

Storm surge - Elevated sea level at the coast caused by the combined influence of low pressure and high winds associated with a severe storm such as a tropical cyclone or East Coast Low.

Storm tide - The total elevated sea height at the coast combining storm surge and the predicted tide height.

Storm tide inundation - When ocean water levels and waves are high enough to cause localised flooding of normally dry land.

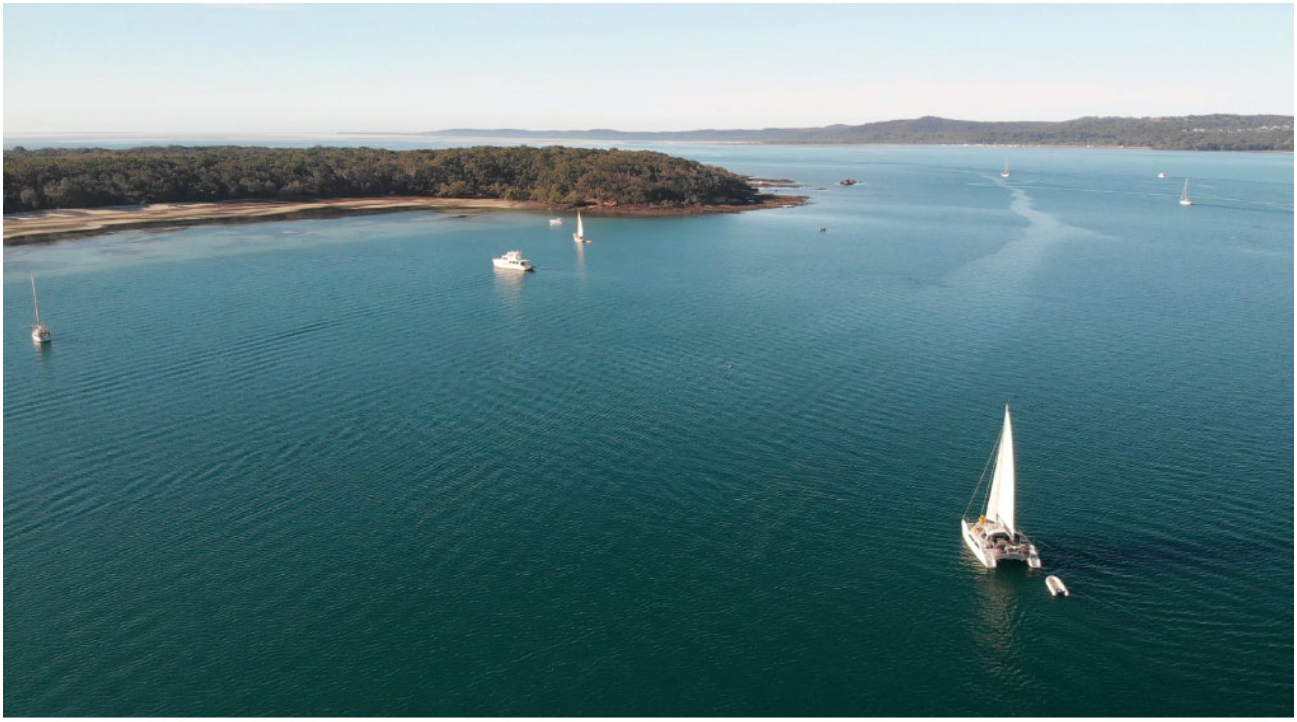
Overtopping - When water splashes over a seawall due to wave action.

Coastal erosion - Erosion occurs when winds, waves and coastal currents act to shift sediments away from an area of the shore.

Short term erosion (storm bite) - Erosion that occurs periodically on a short-term basis, often during a storm. The shoreline and beach then gradually regain sediment (rebuild).

Long term erosion (recession or retreat) - Erosion resulting in a continuing landward movement (loss) of the shoreline or a net landward movement of the shoreline within a specified time.

Accreting coast - Coasts that experience a deposition of sand instead of erosion. Accretion occurs during the calmer seasons. Beach accretion is generally much slower than beach erosion.



Resilience and Adaption

Coastal vulnerability - The threat to coastal landforms, social, economic and environmental systems, associated infrastructure or land use, that may be caused by a sustained shift in environmental conditions.

Risk assessment - A systematic process of evaluating the potential risks that may be associated with an event or activity.

Resilience - The capacity of social, economic and environmental systems to cope with or 'bounce back' following a hazardous event or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure, while also maintaining the capacity to adapt and transform.

Adaptation - The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm, or exploit beneficial opportunities. In some natural systems, human intervention may help a system adjust to the expected climate and its effects.

Adaptive capacity - The ability of systems, institutions, humans, plants and animals to adjust to potential damage, to take advantage of opportunities or to respond to consequences.

Adaptation pathway - A series or sequence of management actions (over time) directed to achieving long-term adaptation objectives.

Coastal adaptation - Future modification of actions and behaviour through construction of infrastructure or change in land use practices that prevents or reduces adverse impacts associated with coastal hazards.

Reference

Terminology has been tailored for the Redland City Council coastal zone and is consistent with the National CoastAdapt information manuals:

https://coastadapt.com.au/information-manuals

MORE INFORMATION ON COASTAL HAZARDS CAN BE FOUND AT:

Coast Adapt: https://coastadapt.com.au

QCoast2100: http://www.qcoast2100.com.au

your say coastal hazard adaptation strategy

redland.qld.gov.au 3289 8999

FACT SHEET 2

Coastal landscape and hazards

A landscape of change

Redland City encompasses over 300 kilometres of coastline and supports a diversity of cultural, social, economic and environmental values. The coastal zone is highly valued by Traditional Owners, local communities and visitors to the area.

One of the more challenging aspects of the coastal landscape is that it experiences constant, and often rapid change. Wind, waves and tides continually work to move sediment and shape the shoreline and adjacent coastal plains.

Drivers of change

Tides: The periodic rise and fall of the daily tide moves sediment both on and offshore and shapes the form of the beach and near-shore environment. The Redlands coastal zone is semi-diurnal, meaning two high tides and two low tides each day. The difference between the lowest and highest tides experienced under normal conditions is called the tidal range. The maximum spring tidal range is around 1.9 m, but extreme weather events can cause considerably higher tides.

Wind and waves: Waves are generated by wind blowing across the water. Wind, combined with the morphology (shape) of the sea floor, drives the size, frequency, duration and energy of waves. Wave energy has the potential to move sediment both offshore, onshore, and along the coastline.

Data on tides, wind, waves and climate patterns are collected by buoys, gauges and weather stations situated along our coastline

Sediment supply: Sediment is delivered to coastlines from catchments, rivers, dunes and offshore environments. When historical sediment supplies reduce or cease, coastlines may be prone to erosion. When sediment supply is abundant, coastlines will tend to build seaward.

People and communities: The number of people living, working and visiting coastal zones is also a key driver of landscape change. The development of urban areas, infrastructure and farmland, can restrict and/or accelerate change.

Weather and climate patterns: Local climatic conditions (e.g. dominant wind patterns) as well as extreme events like cyclones will influence how the coastal landscape develops and changes over time. Extreme weather events can drive major coastline changes in a short period of time. Long-term changes in climate also influence sea level and coastal processes.

In the future, it is expected that the south-east Queensland coastline will experience more intense downpours, sea level rise and more frequent sea level extremes (Figure 1).

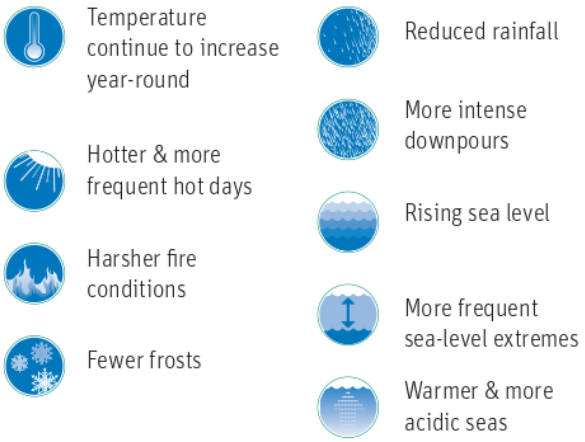


Figure 1. Climate change in the south-east Queensland region. DEHP 2016. https://www.qld.gov.au/__data/assets/pdf_file/0023/67631/seq-climate-change-impact-summary.pdf

What are coastal hazards?

Erosion and inundation are natural processes that shape the coastline. However, they can become hazards when they impact on coastal values and how we use and enjoy the coast.

Coastal hazards include:

- Erosion of beaches and the shoreline
- Short and long-term tidal inundation of low-lying coastal land.

Coastal hazards can have adverse impacts on a range of coastal assets including social, cultural, economic and environmental values. In south-east Queensland, coastal hazard impacts are typically associated with ex-tropical cyclones and East Coast Lows.

Storm tide inundation

Storm tide inundation is the flooding of low-lying coastal land from a locally elevated sea level (the 'storm tide'). The storm tide is a combination of the predicted tide, storm surge, and wave action (Figure 2). Storm surge is driven by the combined influence of low atmospheric pressure and high winds.

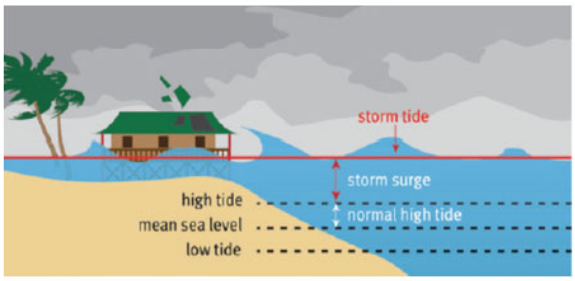


Figure 2. Storm tide inundation

Tidal areas

Tidal areas are periodically inundated by seawater over the regular tidal cycle, including areas impacted by the Highest Astronomical Tide (HAT) or 'king tides'.

Coastal erosion

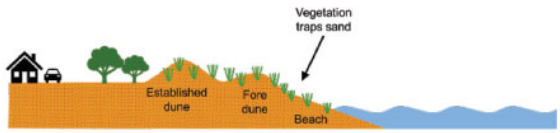
Coastlines naturally erode and accrete over time, driven by variations in sediment supply and climate patterns (Figure 3).

Coastal erosion occurs when winds, waves and coastal currents shift sediment away from the shoreline. This can be a short-term shift, or a long-term erosion trend.

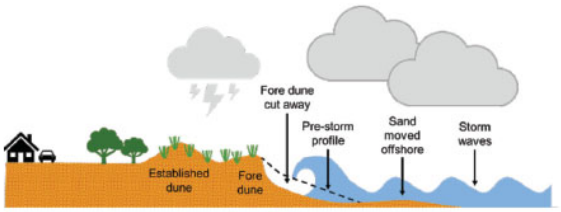
When a beach is stable, all of the sand moved offshore during a storm eventually moves back onto the beach (over timeframes of months to years). In this case the beach erosion (storm bite) is only temporary.

In other cases, due to changing sediment supply or climate conditions, the beach may not have sufficient capacity to rebuild between storm events. In the absence of intervention, long-term erosion (termed recession) may continue.

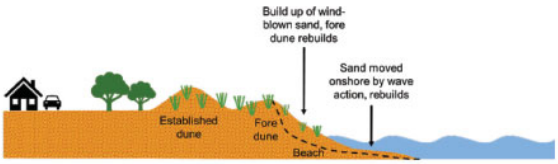
Both short-term and long-term erosion processes may impact on coastal assets, depending on how close to the fore dune assets are located.



Normal beach shape, calm conditions

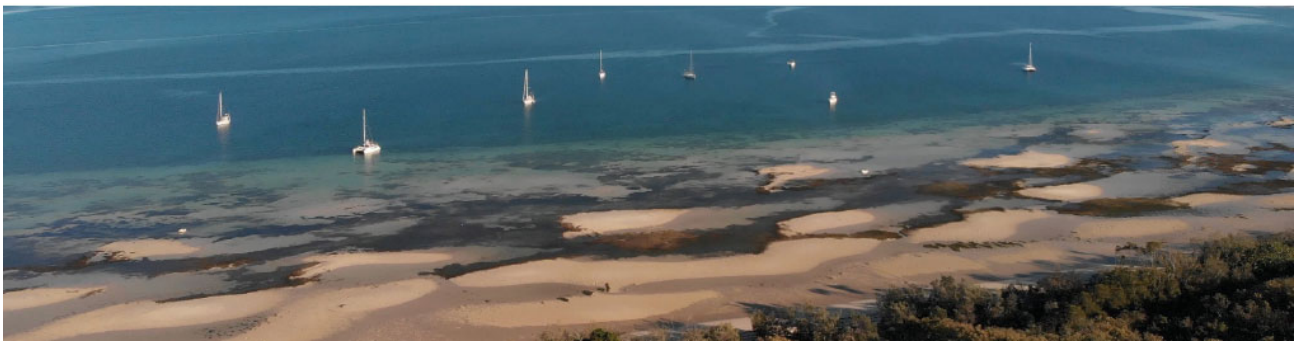


Beach erosion during storm



Beach and dune repair after storm

Figure 3. Coastal erosion and rebuilding



Future impacts

Projected sea level rise and an increase in storm intensity for the Queensland coastline is anticipated to increase the extent and impact of coastal hazards, including (after DEPH 2013[1]):

Storm tide inundation:

- Sea level rise will increase the apparent severity and frequency of storm tide inundation and will cause inundation to occur further inland
- Increased storm intensity will add to the magnitude of storm tide events and the extent of inundation
- A potential increase in seawall overtopping may increase nuisance flooding, public safety hazards, and damage to infrastructure behind the wall.

Tidal inundation:

- Areas inundated by king tides will occur more often
- Area, depth, and frequency of tidal inundation is expected to increase for low-lying areas
- Some areas of low-lying land may be permanently inundated.

Coastal erosion:

- Increased water levels will accelerate coastal erosion
- Sediment transport patterns may be altered by shifts in wave direction, triggering changes to the form and location of shorelines
- Increased storm activity will escalate the severity of coastal erosion events.

Planning to adapt

Adverse impacts of coastal hazards can be minimised through strategic planning and adaptation actions.

This involves:

- Understanding the physical processes
- Assessing the likely extent of storm tide inundation, tidal areas and erosion, now and in the future, and assets that may be impacted
- Assessing the consequence of impacts for communities and assets
- Considering the range of planning and adaption options and developing an adaptation strategy.

Redland City Council is actively planning to avoid or mitigate the impact of coastal hazards, both now and into the future. This work includes locality specific initiatives in shoreline erosion management, as well as the City-wide development of a Coastal Hazard Adaptation Strategy (CHAS). The Strategy provides a proactive plan for Redland City Council communities to adapt to change.

More information

QCoast2100: **www.qcoast2100.com.au/**

[1] **Source:** Coastal Hazard Technical Guideline (DEHP 2013)

your say coastal hazard adaptation strategy

redland.qld.gov.au 3289 8999

FACT SHEET 3

Coastal resilience and adaptation

What does resilience mean?

The ability to be resilient is now seen as one of the key attributes of a sustainable city – economically, environmentally, socially and institutionally.

Resilience is the capacity of social, economic and environmental systems to cope with or 'bounce back' following a hazardous event or disturbance. It also means responding or reorganising in ways that maintain essential function, identity and structure, while also maintaining the capacity to adapt and transform.

How can we adapt to coastal hazards?

There are a range of ways we can adapt to coastal hazards. Across each locality, strategic adaptation responses include to:

- Monitor coastal hazard risk (status quo)
- Mitigate coastal hazard risk (defend, accommodate)
- Transition the land use (retreat from or avoid/lower the risk).

For each of these responses there are a range of adaptation actions that can be applied.

These include:

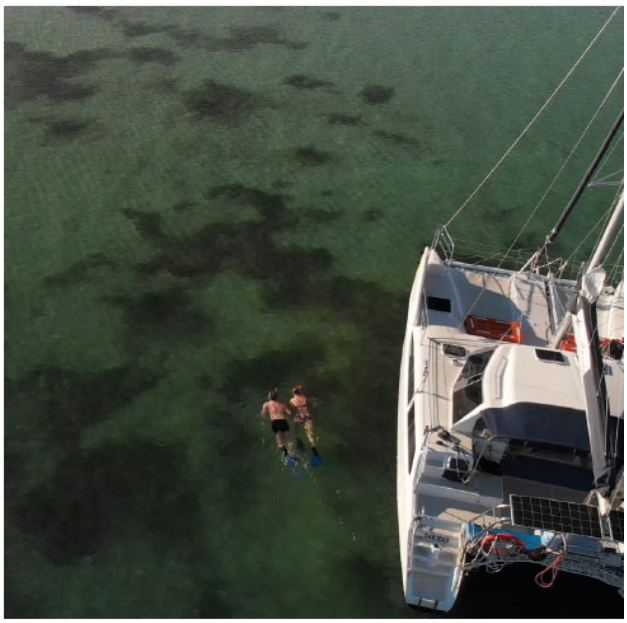
1. Changes and upgrades to infrastructure
2. Coastal engineering options
3. Updates to land use planning
4. Initiatives to enhance adaptive capacity.

Example adaptation options

1. Changes and upgrades to infrastructure

Changes to infrastructure may include:

- Relocating critical infrastructure (e.g. access roads, hospitals, schools)
- Upgrading critical infrastructure that cannot readily be relocated
- Increasing floor levels (freeboard) of buildings in flood prone areas
- Updating drainage networks and systems.



2. Coastal engineering

Structures to minimise coastal flooding

A range of structures can be used to keep floodwaters from entering specific areas.

Dykes and levees are artificially elevated mounds or walls that can be made of earth, rock, concrete, geo-fabric bags or other materials. The presence of dykes and levees can be either part of an emergency planning approach, or more permanent features as part of a drainage network.

Storm surge barriers (tidal barrages or gates) are physical barriers that prevent storm surges travelling inland along rivers, lagoons, inlets or other waterways.

Storm surge barriers can generally be opened and closed and are most effectively implemented at narrow tidal inlets. They can vary in size from a flow valve on pipes and culverts to large scale barrages.

Tidal gates provide an opening through which water may flow freely when the tide moves in one direction, but which closes automatically and prevents the water from flowing in the other direction.

Backflow protection involves the use of valves, flap gates or similar to stop backflow through drainage pipes that can occur at high tide.

Structures to assist with off shore energy dissipation

Structures can be installed off shore to create a zone where wave energy will break and dissipate prior to reaching the shore.

Breakwaters and artificial reefs are typically composed of materials such as rock, concrete or geotextile materials.

Living shorelines are a more recent concept of off shore energy dissipation using a suite of erosion control techniques that combine natural coastal habitats with a natural or engineered means of breaking up a wave energy (e.g. mangrove island, oyster farm reefs/ breakwater).

Approaches for sandy shorelines

Dune protection and maintenance involves limiting disturbance to dunes and protecting/enhancing dune vegetation to increase the stability of the dunes.

Where present, the dune system is the beach's natural defence to coastal hazards. The foredunes dissipate wave energy and protect the land behind from impacts of erosion and storm tide. Vegetation across the dunes traps windblown sand and enhances the ability of dunes to rebuild after storm activity.

Beach nourishment involves importing additional sand to increase the volume of sand on the beach. Sand can be sourced from off shore, quarries or other sources. Beach nourishment is typically combined with dune maintenance, to enhance the level of protection against erosion and storm tide levels.

Beach nourishment has the benefit of providing increased protection from coastal hazards while maintaining the natural values of the beach and coastline.

Groynes are structures (rock, geotextile, wood) that extent perpendicular from the shoreline, and can assist with retaining sand in a specific area. Sand will accumulate to one side of the groyne. Groynes are often combined with a nourishment program.

Last line of defence structures

Seawalls provide a physical barrier between the ocean and adjacent coastal land, and protect the coastal assets behind the wall from erosion. Seawalls are typically made of rock, concrete or geo-fabric bags, and can be designed as buried revetments or exposed walls.

A seawall is a hard barrier to wave energy. As a result, waves refract off the seawall and scour sand away from the base (or toe). The presence of a seawall can often result in a complete loss of the high tide sandy beach. The appropriateness of seawalls is considered on a site by site basis.

3. Updates to land use planning

Updates to land use planning may include:

- Identifying appropriate areas for new development (residential, commercial), and new critical infrastructure (e.g. roads, hospitals)
- Tailoring specific uses for flood and erosion prone areas (e.g. sporting fields, open space and parklands, conservation zones)
- Planning for urban, industry, and ecosystem changes
- Updating emergency response planning, including early warnings for impacted properties.

4. Initatives to enhance adaptive capacity

Initiatives to build adaptive capacity across our communities include:

- Developing programs and partnerships to support and enhance stewardship of the coastline
- Facilitating knowledge sharing and education on hazards and adaptation
- Monitoring changes in coastal hazard risk and effectiveness of adaptation.

Adaptation approaches:

- **Will vary from site to site within each region**
- **Are tailored to the needs of local communities**
- **Consider the relative impacts of coastal hazards**
- **Seek to safeguard the values (social, environmental and economic) and character of the landscape.**

Working together

To build resilience and adapt to change, Redland City Council is working with residents and community organisations to:

- Understand the current impact of coastal hazards
- Evaluate and upgrade existing mitigation measures
- Explore new adaption initiatives.

your say coastal hazard adaptation strategy

redland.qld.gov.au 3289 8999

FACT SHEET 4

Economics

The role of economics

Economic analysis is important for determining the best approach to coastal hazard adaptation in different regions.

Economic analysis is used in several ways, including to:

- Value assets and key industries
- Define a base case (cost of no additional action)
- Assess adaptation options

Valuing assets and industries

The first step in an economic analysis is to define the monetary value of assets and key industries across a region.

Value is assessed for a range of assets, including:

- **The built environment:** including public and private infrastructure, buildings and services
- **The natural environment:** examples include unique coastal landforms, vegetation communities, mangroves, wetlands, endangered species and culturally significant sites.

The value of key industries to the economy is also examined. For Redland City Council, this includes:

- the tourism industry, and
- the recreation industry

Economists collate a range of information from existing and new data and studies to inform an understanding of the value of assets and industries.

Economic base case

The next step of an economic assessment in coastal hazard adaptation is to define a base case. This means determining the potential economic costs or losses associated with coastal hazards (and no additional adaptation). This becomes the baseline for a cost-benefit assessment of implementing adaptation options.

A base case is determined by examining the likelihood and consequence ($ damage) of coastal hazard impacts on assets across the region, and at different timeframes (e.g. present-day, 2040, 2070, 2100).

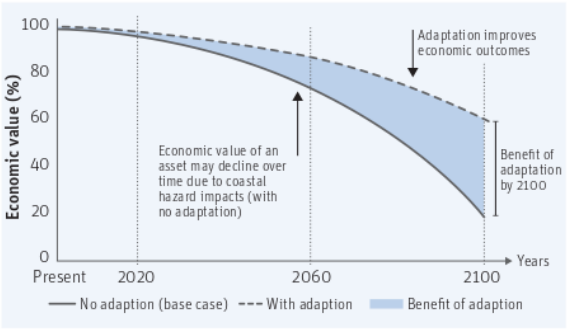


Figure 1. Economic benefits of adaptation actions

It is important to consider the change in economic value over the long term, both with no additional adaptation (the base case) and for various new adaptation options. As Figure 1 shows, over the long term, the economic benefit of adaptation can be substantial.

Assessing adaptation options

The benefit of adaptation options can be assessed using multi-criteria and cost-benefit analysis techniques. Where sufficient data is available, a cost-benefit analysis is the preferred approach.

Multi-criteria analysis

A multi-criteria analysis (MCA) is a tool for refining a list of suitable adaptation options. The aim of a multi-criteria analysis is not to pick the best option, but to screen the options and find those that are:

- Effective at reducing risk
- Feasible for the given location
- Acceptable to the community
- Cost-effective

Cost-benefit analysis

A cost-benefit analysis (CBA) is more detailed than a multi-criteria analysis. In this type of assessment, economists look at all the advantages or benefits of implementing an adaptation option, and compare them to the disadvantages or costs of the same option.

Once the costs and benefits of each option have been assessed, decisions can be made on which option or combination of options provide the greatest benefit for the lowest cost.

Pros

The main **benefit** of an adaptation option will be the reduced risk of inundation and/or erosion, however benefits can also include:

- Increased engagement and community involvement
- Better awareness of coastal hazards
- Increased tourism and business opportunities
- Protection of natural assets and cultural resources
- Decreased insurance premiums

Cons

Costs include not only the upfront cost of construction or implementation, but could also include:

- Impact on businesses, the environment, ecology or cultural values
- Reduction in visual appeal of the area
- Ongoing maintenance and monitoring
- Reduced recreational opportunities

The development of the Redland City Council Coastal Hazard Adaptation Strategy has been supported by a tailored economic analysis. This includes appraising built and natural assets across the city, defining an economic base case, developing a multi-criteria analysis for screening adaptation options, and tailoring a cost-benefit analysis of adaptation options to inform decision making from present-day to 2100.

your say coastal hazard adaptation strategy

3829 8999

01591 11/20

FACT SHEET 5

Adaptation Framework

A strategic approach to coastal adaptation

Across Australia and internationally, coastal land managers are taking a strategic approach to manage the risk of coastal hazards and enhance the resilience of our coastal zones.

Common elements of this strategic approach include:

- Assigning a strategic **adaptation response** (Table 1) to different localities to guide decision making with a pathways approach across present-day, intermediate, and 2100 planning horizons
- Assessing the range of **adaptation options** (Table 2) suitable in different locations to help avoid, mitigate, and manage the risk of coastal hazards
- Developing a strategy for coastal adaptation, with prioritised actions over a 5-10 year timeframe

A tailored approach has been developed to guide decision-making on adaptation response and options across the Redlands Coast.

Adaptation response	Coastal hazard adaptation		
Avoid	**Monitor, maintain, and prepare**	**Mitigate**	**Transition**
Avoid placing new development or assets in coastal hazard areas	Monitor the risk of coastal hazards. Monitor until local trigger levels are reached to initiate mitigation. + Maintain existing arrangements and prepare for future actions	Actively mitigate the risk of coastal hazards through a range of additional adaptation options. Mitigate until local trigger levels are reached to initiate transition.	A strategic decision to transition to an alternative land use in some areas. Mitigation may be part of the transition process.
Adaptation options	Full range of adaptation options		

Table 1. Adaptation response

Avoid

The first principle is to avoid placing new development or assets in coastal hazard areas. The preference is to ensure land use in coastal hazard areas is one that is low risk for coastal hazard impacts while also maximising economic, social, and environmental value to the region.

Any new development/infrastructure that is placed in coastal hazard areas will need to be in accordance with Queensland Government planning policy and approvals requirements and include necessary migration measures.

Monitor, maintain, and prepare

At localities where the coastal hazard risk profile is relatively low, Council will continue to monitor risk and undertake existing maintenance and asset management activities (including planned upgrades), planning and preparation for future mitigation works, and broader stewardship initiatives for the coastline. If over time, the risk profile is observed to increase (as indicated by local trigger levels), then the adaptation response may shift to mitigate.

Mitigate

At localities where coastal hazard risks have been identified, Council will actively manage the risk through implementing a range of adaptation options.

Mitigation will be tailored to each locality, incorporating site-specific processes, community input, and statutory planning considerations. If, over time, the risk profile is observed to increase (as indicated by local trigger levels), and mitigation becomes infeasible (due to economic or other factors), then the adaptation response may shift to transition.

Transition

In some specific areas within a locality, if the coastal hazard risk profile is very high, and/or mitigation becomes infeasible (due to economic or other factors), Council may make a strategic decision to transition to an alternative land use. Transition is likely to be a gradual process over time, where mitigating hazards for a period is part of the transition process.

Enhancing adaptive capacity	Community stewardship
	Knowledge sharing
	Monitoring
Planning	Land use planning
	Disaster management
Modifying infrastructure	Increase infrastructure resilience
	Relocate infrastructure
Coastal management and engineering	Dune protection and maintenance
	Beach nourishment
	Structures to assist with sand retention
	Structures to dissipate wave energy
	Last line of defence structures
	Structures to minimise inundation

Table 2. Adaptation options

Shared roles in adaptation

Redland City Council recognises a shared responsibility for the management of coastal hazard risk; shared by all land managers, private landowners, and Council.

Council's primary responsibility is the maintenance and protection of Council land and assets and to inform statutory planning. Council is not responsible for undertaking any foreshore protection works on privately owned land on Redlands Coast.

Council's role in adaptation varies depending on the type and ownership of different assets (Table 3). Council's role includes to:

Inform – Council will make available to all stakeholders (including public and private land and asset owners) the outcomes of relevant Council-led investigations on coastal hazard risk, planning, and adaptation options.

Observe – Council will actively observe/monitor coastal hazard risk for Council-owned land and assets. For land and assets owned or managed by others, Council may, as part of everyday activities, observe a risk from coastal hazards and will notify the relevant landowner/manager.

Plan – Council will develop strategic planning measures to mitigate the risk of coastal hazard impacts on Council-owned land and assets, and to inform appropriate land use planning across the region.

Act – Council will implement strategic planning measures to mitigate the risk of coastal hazard impacts on Council-owned land and assets, and to inform appropriate land use planning across the region.

Through the development and implementation of a Coastal Hazard Adaptation Strategy, Council also seeks to foster and enable other stakeholders to proactively manage coastal hazard impacts on their own/land assets per the Strategy and in consultation with Council.

		Land or asset type		
		Council-owned	Managed by other authorities	Privately-owned
Council's role	Inform	✓	✓	✓
	Observe	✓	○	✗
	Plan	✓	✗	✗
	Act	✓	✗	✗

Table 3. Council's role in coastal hazard adaptation

your say coastal hazard adaptation strategy 3829 8999

01591 11/20

SHEET 1

Adaptation Actions

Community Stewardship

Active community stewardship of the coastline provides a strong foundation for long-term success in coastal management. Fostering the shared care of the Redlands Coast coastline will maximise resilience and adaptive capacity.

Enhancing stewardship of the coastline

Community involvement in coastal management is important for enhancing the resilience of our beaches to coastal hazards. Across Redlands Coast, many community members and groups are active in the care of the coastline.

A priority action for coastal hazard adaptation is the ongoing coordination and support of stewardship initiatives that will seek to further empower and equip communities to:

- Contribute to on-ground dune protection and maintenance
- Promote and advocate for the care and protection of dune systems
- Share knowledge on observed changes to the coast
- Contribute to monitoring and evaluation of the implementation and success of adaptation actions.

Several community groups are active across the coastline. The full range of initiatives and activities that Council may undertake as part of the stewardship program include to:

- Utilise new communication platforms
- Seek new funding and grant opportunities
- Co-ordinate and facilitate community events
- Provide support to volunteer groups
- Identify complementary activities and synergies
- Seek partnerships and collaboration opportunities
- Deliver education and training programs
- Promote use and development of innovative tools and products
- Encourage participation and awareness.

Dune protection and maintenance

As a priority for sandy shorelines and to provide the best possible outcome for coastal hazard protection, community stewardship should have a strong focus on dune protection and maintenance. Community involvement may include:

- Fencing and creating designated walkways
- Controlling pests, weeds, and litter
- Revegetating native plants and trees, where possible
- Raising awareness and delivering educational workshops
- Protecting cultural sites
- Conducting surveys
- Contributing to the monitoring program through photo points and onground monitoring

Relevant and priority areas

The delivery of community stewardship program initiatives is a priority across all localities.

Community Stewardship		
	Programs and partnerships to enhance stewardship of the coastline	Dune protection maintenance and monitoring
Zone 1 North Mainland	Priority	
Zone 2 Central Mainland	Priority	
Zone 3 South Mainland	Priority	
Zone 4 Bay Islands	Priority	Relevant/feasible
Zone 5 North Stradbroke	Priority	Priority

Relevant/feasible
Priority
Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 2

Redland CITY COUNCIL

Adaptation Actions

Knowledge Sharing

A crucial element to increasing adaptive capacity is knowledge sharing. Knowledge sharing includes initiatives to promote education and awareness of coastal hazards, adaptation options, and how other agencies and individuals can be involved and act to reduce the risk of coastal hazards.

Coordination of knowledge sharing initiatives will further empower and equip stakeholders to:

- Understand coastal hazard risk and adaptation options
- Contribute to community stewardship initiatives
- Be informed, empowered, and equipped to manage risk to private assets
- Be informed of implementation progress of adaptation actions
- Contribute to the monitoring program.

Initiatives and activities that Council may undertake as part of coordinating a knowledge-sharing program include to:

- Promote collaborative action across stakeholder groups (host meetings, facilitate cross-agency communication)
- Establish coastal-specific collaborative partnership with Traditional Owners
- Generate communications materials to raise awareness of coastal hazard risk and the adaptation options being implemented
- Seek to manage perceptions on:
  - Levels of risk and tolerance
  - Shared responsibilities in the management of coastal hazard risks.
- Communicate the need for adaptive management
- Deliver and facilitate training programs and workshops, and link in with community stewardship education initiatives
- Coordinate information sharing across agencies (data, maps, monitoring data).

Relevant and priority areas

The delivery of knowledge sharing initiatives is a priority action across all localities

Knowledge Sharing		
	Facilitating knowledge sharing and education on hazards and adaptation	Other
Zone 1 North Mainland		
Zone 2 Central Mainland		
Zone 3 South Mainland		
Zone 4 Bay Islands		
Zone 5 North Stradbroke		

Relevant/feasible

Priority

Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 3

Redland CITY COUNCIL

Adaptation Actions

Monitoring

Targeted monitoring provides a means to assess how the coastal environment is changing over time, and the effectiveness of adaptation options in mitigating the risk of coastal hazards.

The development and implementation of a targeted monitoring program to inform adaptive management is a critical component of all adaptation strategies.

A useful approach to monitoring coastal environments may include:

- Simple and frequent photo point monitoring and onground observations suitable for community participation
- Event-based monitoring (beach profile elevations)
- More detailed surveys (on-ground or aerial) every 5-10 years.

Monitoring observations may include:

- Dune movement
- Erosion extent
- Sand characteristics
- Sand coverage/ beach shape
- Exposure of structures
- Vegetation coverage, species, density and health
- Mangrove watch
- Seagrass watch
- High water mark
- Flood extent
- Exposure of rock

Council has undertaken a range of beach monitoring activities to inform management. Additional initiatives and activities that Council may undertake as part of a broader monitoring program include:

- Extending the existing photo point monitoring system
- Confirming a program of monitoring actions
- Creating a platform and process for data management
- Tailoring the monitoring program to align with/inform a 5-10 year review of adaptation response and options.

Photo point monitoring

Photo posts with a defined outlook or viewpoint can be installed to enable images to be captured from the same perspective each time. Photopoint monitoring use an email address or online app to help collect and collate photos, creating a photo record over time. This approach provides a simple way for community members and visitors to contribute to the monitoring of the beach. Formal or informal versions of this system can be established for any section of the coast.

CoastSnap
community beach monitoring

Periodic aerial imagery or drone surveys can be added to provide an aerial perspective of shoreline changes over time. Drone surveys can also provide elevation data that can be analysed to quantify changes in the beach profile over time ie. dune width, slope, toe position and, berm height. Elevation surveys can also be undertaken with on-ground equipment, includes survey stations and Global Positioning Systems.

Relevant and priority areas

Targeted monitoring is a priority action across all localities.

Monitoring		
	Monitoring changes in coastal hazard risk and effectiveness of adaptation	Photo point monitoring
Zone 1 North Mainland		
Zone 2 Central Mainland		
Zone 3 South Mainland		
Zone 4 Bay Islands		
Zone 5 North Stradbroke		

Relevant/feasible
Priority
Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 4

Adaptation Actions

Land Use Planning

Planning instruments can assist to mitigate the risk (likelihood and consequence) of coastal hazards, including erosion and storm tide inundation.

Statutory planning/planning scheme

Erosion Prone Area and storm tide inundation mapping is already incorporated in the Redland City Plan. The maps together with the Council's adaptation initiatives, will enable Council to:

- Ensure coastal hazards and risks are identified and considered
- Enable Council to manage and control/condition development and statutory approvals
- Incorporate flexibility and adaptability (i.e. triggers)
- Maintain values that are integral to the community
- Promote/encourage appropriate design and mitigation as part of new developments (resilience opportunities)
- Protect areas of environmental significance
- Plan ahead for required mitigation/transition actions

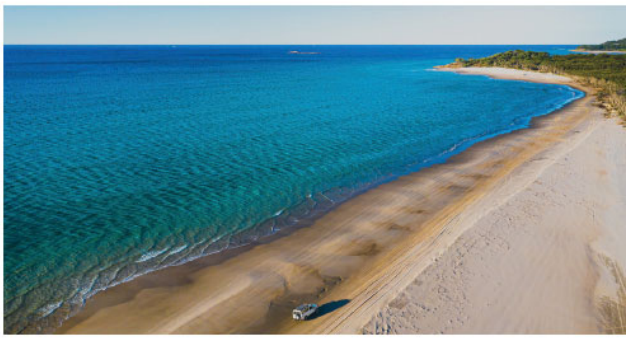
Other strategic planning

Adaptation response and actions also inform other planning related to infrastructure, open space, foreshore master plans and asset management.

Integrating a current understanding of coastal hazards and appropriate mitigation options into existing and new relevant strategies will assist in mitigating risk, enhancing resilience, and achieving multiple benefits from adaptation e.g. aesthetic and recreation benefits combined with risk mitigation.

Disaster management

A review and update of emergency response planning based on outcomes of adaptation planning will allow Council to plan accordingly to minimise the consequence of coastal hazard impacts during extreme events.



Up-to-date understanding of coastal hazard-prone areas, likely event magnitudes and extents, and possible access and infrastructure constraints will improve planning and preparation, as well as response and recovery efforts.

Priority areas

Planning updates are relevant across all localities.

Land Use Planning		
	Statutory planning/ planning scheme updates	Update emergency response planning
Zone 1 North Mainland		
Zone 2 Central Mainland		
Zone 3 South Mainland		
Zone 4 Bay Islands		
Zone 5 North Stradbroke		

Relevant/feasible

Priority

Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 5

Redland CITY COUNCIL

Adaptation Actions

Increase Infrastructure Resilience

Modifying infrastructure is a practical way to mitigate the risk (likelihood and consequence) of coastal hazards, including erosion and storm tide inundation.

Upgrading infrastructure

Upgrades can be made to critical infrastructure that cannot be readily relocated out of a coastal hazard zone. Typical upgrades include raising floor levels to reduce inundation risk and changing infrastructure design and materials to be more flood-tolerant and minimise the consequence of inundation.

For efficiency, upgrades would typically coincide with upgrades and renewals scheduled in an asset management and maintenance program. Current coastal hazard zones, identified risks to infrastructure assets, and recommendations from adaptation planning will inform updates to asset management plans.

Relocating infrastructure

Where it is feasible to do so, critical infrastructure can be relocated out of the high-risk coastal hazard zone. This option requires long-term planning in asset management, as the location of critical infrastructure is influenced by demand and the need to support settlements and services.

Improving drainage networks

Improving drainage networks in the areas immediately surrounding infrastructure and in settlement areas can reduce the duration and consequence of storm tide inundation. This should be considered as part of the adaptation strategy and asset management plan for a locality.

Building resilient homes

In coastal areas, private dwellings may be exposed to the impacts of coastal hazards, including flooding as a result of storm tide inundation. Adopting flood-resistant ideas when designing a home can reduce the effects of flooding and is applicable when rebuilding, renovating, or constructing a new dwelling. Some of these changes may have higher initial upfront costs but provide a long-term benefit. Making these changes over time can reduce damage and disruption from future flooding.

Relevant and priority areas

Modifying infrastructure is a high priority for areas at high risk of tidal and storm tide inundation.

Increase Infrastructure Resilience			
	Upgrading infrastructure	Improve drainage networks	Resilient homes
Zone 1 North Mainland			
Zone 2 Central Mainland			
Zone 3 South Mainland			
Zone 4 Bay Islands			
Zone 5 North Stradbroke			

Relevant/feasible
Priority
Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 6

Adaptation Actions

Dune Protection and Maintenance

The dune system is the primary natural defence from coastal hazards. Foredunes dissipate wave energy and protect the land behind from impacts of erosion and storm tide inundation.

Dune protection and maintenance encourages sand to accumulate across the dunes and retain stabilisation. In most cases, a well-vegetated, stable dune system can be maintained through actively reducing disturbance and facilitating native vegetation establishment.

Native vegetation has an important role in dune development and stabilisation. Native vegetation actively captures windblown sand, which accelerates the build-up of dune volume and height, providing increased protection from coastal hazards to the land behind.

In Redlands Coast, North Stradbroke Island (Minjerribah) has expansive coastal dune systems that provide protection from erosion and inundation to many assets. Active protection and enhancement of these dune systems is an on-going priority action across the region.

Reduce disturbance

Reducing disturbance to the dune system can be achieved through fencing, signage, and providing formalised access points, walkways, or boardwalks at the most appropriate locations. Minimising access across the dune system is critical to allowing native vegetation to establish and contribute to the development of dune systems.

Weed removal and native vegetation regeneration

Native vegetation is significant to the role of enhancing dune development and stability in different localities. Exotic weed species are a threat to natural ecosystems and native vegetation. In most cases, controlled weed removal, combined with reduced dune disturbance, is sufficient to allow the regeneration of native vegetation in affected locations.

Revegetation

In some cases, if native vegetation has been diminished due to clearing or other disturbances, the revegetation of native species may be required as part of the dune protection and maintenance plan. Revegetation plans can be tailored to consider suitable species, access, views, and other site-specific requirements. Bio-degradable materials, like matting, can also assist in the establishment of vegetation.

Relevant and priority areas

Dune protection and maintenance is a priority action for all localities with open coast sandy shorelines.

Dune Protection and Maintenance			
	Reduce disturbance (fencing)	Weed removal and encourage native regeneration	Native revegetation if required
Zone 1 North Mainland			
Zone 2 Central Mainland			
Zone 3 South Mainland			
Zone 4 Bay Islands			
Zone 5 North Stradbroke			

Relevant/feasible

Priority

Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 7

Redland CITY COUNCIL

Adaptation Actions

Beach Nourishment

Beach nourishment involves providing additional sand to increase the volume of sand on the upper beach.

Sand can be sourced from the intertidal zone, quarries, or offshore. Beach nourishment is typically combined with dune maintenance and protection plans to enhance resilience to coastal hazards.

Beach nourishment has the benefit of providing increased protection from coastal hazards while maintaining the natural values and aesthetics of the beach and coastline. Beach nourishment is typically achieved through sand scraping or importing sand.

Sand scraping

Sand scraping involves mechanically moving sand from the intertidal zone to the dune or upper beach zone, mimicking the natural beach recovery processes (at an accelerated rate). The overall sediment budget of the beach remains the same.

Importing sand

Importing sand to nourish the beach involves sourcing and distributing sand to increase sand volume and build up the dune system. Sand can be placed through a variety of methods, including pumping via a pipeline, sand rainbowing from off-shore, or direct profile nourishment and dune nourishment using excavators.

Beach nourishment volumes can be designed to mitigate coastal hazards at specific sites for several years.
A routine beach nourishment program can often be a more cost-effective adaptation option with added recreational and aesthetic benefits for mitigating coastal hazards than the last line of defence structures, such as seawalls.

Relevant and priority areas

A detailed beach nourishment assessment is required wherever beach nourishment is recommended to evaluate site-specific issues, including:

- Potential sources of sediment and longevity of sediment supply
- Characteristics of desired sediment e.g. colour, grain size, material
- Volume of material required over the short and long-term.

Beach nourishment is relevant to several localities along the Redlands Coast coastline and a priority action in foreshore areas at high risk of coastal erosion.

Beach Nourishment		
	Sand scraping	Import sand to nourish the beach
Zone 1 North Mainland		
Zone 2 Central Mainland		
Zone 3 South Mainland		
Zone 4 Bay Islands		
Zone 5 North Stradbroke		

Relevant/feasible

Priority

Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 8

Redland CITY COUNCIL

Adaptation Actions

Structures to Assist with Sand Retention

Structures can be installed to assist with retaining sand in a specific area of the shoreline. Groynes are the most common structure used for this purpose, extending perpendicular to the beach. Groynes are typically combined with beach nourishment plans to provide the most enduring benefit to the beach.

Groynes intercept the longshore movement of sand and assist in retaining sand on the beach between the structures. Sand will accumulate to the side of the groyne and in the direction sediment is moving. Some localised erosion can occur on the lee-side. Permeable groynes allow water to flow through at reduced velocities, while impermeable groynes block or deflect the current.

Groynes can be constructed from a range of materials, including rock, geotextile sandbags (geo-bags), wood, and other materials, such as sheet piles, gabions, and concrete. The design of rock or geo-bag groynes are commonly used in Australian marine environments due to the durability and availability of materials, suitability for design standards, and aesthetics.

Rock groynes

Groynes constructed of rock become relatively permanent features of the landscape. Rock groynes are typically used to assist with retaining large volumes of sand in a localised area on an ongoing basis.

Geo-bag groynes

Geo-bag groynes are becoming increasingly used for coastal management. These groynes are constructed of large geo-textile bags filled with sand.

These groynes will be periodically covered and exposed. Geo-bags have a shorter design life than rock groynes. However, they are more suited to adaptive management and can be replaced if the management approach changes.

Groynes are part of Council's coastal management measures at several beaches in Redlands Coast. For example, on the bay side of Raby Bay or at Amity Point.

Relevant and priority areas

Groynes are a relevant action across all sandy beach localities with a dominant long-shore drift direction. The feasibility of groynes is assessed on a site-by-site basis. The site's feasibility of groynes may change over time to reflect the changing coastal hazard risk and adaptation objectives.

Structures to Assist with Sand Retention		
	Rock groynes	Geo-bag groynes
Zone 1 North Mainland		
Zone 2 Central Mainland		
Zone 3 South Mainland		
Zone 4 Bay Islands		
Zone 5 North Stradbroke		

Relevant/feasible

Priority

Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 9

Redland CITY COUNCIL

Adaptation Actions

Structures to Dissipate Wave Energy

Structures can be installed off-shore to create a zone where wave energy will break and dissipate before to reaching the beach. These structures are referred to as breakwaters and artificial reefs.

Breakwaters are erosion control structures most frequently placed parallel to the coastline. Breakwaters are typically constructed using rock or geotextile sandbags (geo-bags). Exposed breakwaters have a crest that rises above the surface of the water, whereas submerged breakwaters do not.

Artificial reefs can similarly be used to reduce wave energy and erosion of shorelines and are typically composed of base materials such as rock or geo-bags. They are submerged structures that function through wave dissipation and wave rotation, leading to salient growth in the lee of a reef. To a greater extent than breakwaters, artificial reefs can also be used to enhance marine biodiversity and recreational amenity.

Mangroves

Mangroves have a criticial role in providing natural dissipation of wave energy, and its ability to provide coastal hazard protection is becoming increasingly recognised.

The protection and restoration of mangrove communities along shorelines is an effective coastal hazard adaptation initiative. Established mangrove communities exist around Redlands Coast. For example, at Wellington Point and Geoff Skinner Reserve. This natural ecosystem should be protected to provide shorelines with protection from wave energy. This coastal management option is typically an extension of dune protection and maintenance activities.

Relevant and priority areas

The protection and enhancement of mangroves is a priority across localities where they are established. Breakwaters and artificial reefs require careful design and construction to ensure they work effectively and are often cost-prohibitive for many locations.

These options may be feasible for some sites across Redlands Coast, however, require further design and investigation to assess their suitability.

Structures to Dissipate Wave Energy			
	Breakwaters	Artificial reef	Mangrove protection and enhancement
Zone 1 North Mainland			
Zone 2 Central Mainland			
Zone 3 South Mainland			
Zone 4 Bay Islands			
Zone 5 North Stradbroke			

Relevant/feasible

Priority

Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 10

Adaptation Actions

Last Line of Defence Structures

The last line of defence structures can be used to protect critical assets from coastal hazards. These structures are typically in the form of a seawall that provides a barrier between the ocean and adjacent coastal land.

Seawalls are built as either vertical or sloped structures and are typically made of rock, concrete or geotextile sandbags (geo-bags). These structures can also be designed as buried revetment walls or exposed walls.

Seawalls are designed to withstand extreme weather events and must meet the required design standards to provide sufficient protection from coastal hazards and wave actions.

Exposed seawall

An exposed seawall is a barrier against wave energy. Unlike a dune system, a seawall has limited capacity to dissipate wave actions.

Consequently, waves retract off the seawall and can scour sand from the base of the wall, resulting in a change in or progressive loss of the sandy beach.

Exposed seawalls are typically used only as a last line of defence to protect critical infrastructure and assets and in urbanised foreshore environments.

Buried seawall

In some instances, seawalls can be constructed as buried revetments. A buried seawall means the wall is buried under the sand, the dune system is revegetated, and an effort is made to ensure the sand is retained to keep the wall buried.

A buried seawall protects the foreshore from weather events while maintaining natural beach aesthetics.

However, it may involve additional costs of periodic beach nourishment to ensure the wall remains buried.

Relevant and priority areas

Existing seawalls established in several areas across Redlands Coast are at high risk of coastal erosion.

New or upgraded seawalls are feasible for several foreshore areas and used as a last line of defence structure based on implementation triggers consistent with the Queensland Government planning policy.

Last Line of Defence Structures		
	Exposed seawall	Buried seawall
Zone 1 North Mainland		
Zone 2 Central Mainland		
Zone 3 South Mainland		
Zone 4 Bay Islands		
Zone 5 North Stradbroke		

Relevant/feasible

Priority

Not applicable

your say coastal hazard adaptation strategy 3829 8999

SHEET 11

Redland CITY COUNCIL

Adaptation Actions

Structures to Minimise Inundation

Structures such as dykes, levees, and storm surge barriers can be used to protect low-lying coastal land from inundation.

Dykes and levees take the form of elevated mounds or walls that can be constructed from soil, rock, concrete, geotextile sandbags, or other materials.

The terms 'dyke' and 'levee' are often used interchangeably to refer to a structure that prevents water from flooding a specific area.

However, dykes are commonly referred to as structures that prevent low-lying land from being permanently inundated, and levees are referred to as structures that help prevent the land from being occasionally inundated as a result of flood events.

Storm surge barriers (tidal barrages or gates) are physical barriers that prevent storm surges from flowing inland through rivers, lagoons, inlets, or other waterways.

Storm surge barriers can generally be opened and closed and are effectively implemented at narrow tidal passages. They can vary in size from a flow valve on pipes and culverts to large scale barrages.

Relevant and priority areas

The design and effectiveness of storm surge barriers to a specific area require major investigation that assesses the site's feasibility.

Structures such as levees and dykes used to minimise the inundation of low-lying land are relevant to inundation-prone areas across all localities.
Levee networks are present in some low-lying areas.

Structures to Minimise Inundation			
	Dykes	Levees	Storm surge barriers
Zone 1 North Mainland	■	■	■
Zone 2 Central Mainland	■	■	■
Zone 3 South Mainland	■	■	■
Zone 4 Bay Islands			
Zone 5 North Stradbroke			

■ Relevant/feasible
■ Priority
□ Not applicable

your say coastal hazard adaptation strategy 3829 8999

15.2 MACLEAY ISLAND ARTS COMPLEX INC. - LEASE RENEWAL

Objective Reference: **A5497918**

Authorising Officer: **Dr Nicole Davis, General Manager Infrastructure & Operations**

Responsible Officer: **Sherry Clarke, Group Manager City Operations**

Report Author: **Kate Mullens, Service Manager City Sport and Venues**

Attachments: **1. Site Plan**

PURPOSE

To seek Council approval to renew the lease agreement for Macleay Island Arts Complex Inc. over part of Lots 283, 284 and 285 RP31212, including expansion of the existing lease footprint.

BACKGROUND

Macleay Island Arts Complex Inc. (MIAC) holds a current lease over its main art gallery building on part of Lots 284 and 285 RP31212, 93-95 Coast Road, Macleay Island. The group also holds a Licence to Occupy which expands into Lot 283 RP31212, 26 Benowa Street, Macleay Island, providing tenure over the adjoining pottery building. Both agreements are due to expire on 4 November 2021.

A lease renewal is requested for a term of 10 years, with an expanded footprint to incorporate the whole occupied area of land within one tenure agreement.

MIAC is a not for profit arts organisation and was incorporated in 1987. With a current membership of approximately 120, the group supports diverse potters, sculptors and artists living on the Southern Moreton Bay Islands. MIAC has occupied Council land since incorporation and funded construction of the existing buildings through member fundraising, grants, donations and voluntary work.

Due to the age and condition of the existing buildings, MIAC has requested land owner's consent from Council to replace the structures. The plans include a new art gallery, separate pottery building, work room, café, terrace, deck and disability access ramps. Internal stakeholders have reviewed the proposal and support the project in principle, subject to MIAC's successful acquisition of grant funding and Council's approval of the new lease.

ISSUES

Expansion of lease area

The current lease footprint held by MIAC does not sufficiently incorporate the area of land occupied by the group. As an interim solution, a Licence to Occupy was granted to provide tenure over the remaining area, the Licence runs in conjunction with the current lease.

To encompass the occupied area within one tenure agreement, an expansion of the lease footprint is requested as outlined in *Attachment 1 – Site Plan*.

When negotiating the extent of the proposed lease area, officers from Council's Civic and Open Space Asset Management Team considered impacts to existing recreation park areas and future park embellishments/improvements such as pedestrian connectivity along the eastern boundary of Coast Road.

Application requirements for proposed building works

A pre-lodgement meeting was held in February 2020 to determine application requirements for the proposed building works. The meeting was attended by representatives of MIAC, Council's Planning Assessment Team, Engineering Assessment Team and Plumbing Services Team.

It was determined that, in addition to the standard building and demolition applications, a code assessable Material Change of Use (MCU) application and plumbing application is necessary. Any consent to proceed with the proposed works will include the requirement for these applications and will be subject to approval.

Key issues noted relate to the front road boundary setback/streetscape and car parking requirements which will be addressed, along with relevant zones, codes and overlays, in the MCU application. In consultation with internal Council stakeholders, MIAC developed plans that include a four metre lease area set back and six metre building set back from Coast Road as well as seven parallel car parks. These plans will form the MCU application for assessment by Council's Planning Unit.

Native Title/Aboriginal Cultural Heritage

Quandamooka Yoolooburrabee Aboriginal Corporation (QYAC) approved the proposed building works and noted no known impact to Aboriginal Cultural Heritage, subject to appropriate Cultural Heritage services monitoring arrangements.

STRATEGIC IMPLICATIONS

Legislative Requirements

The *Local Government Regulation 2012* (the Regulation) s.236(1)(b)(ii) requires that Council agrees by resolution that it is appropriate to dispose of an interest in land to a community organisation, other than by tender or auction.

MIAC meets the Regulation's definition of a community organisation, as it is an entity that carries on activities for a public purpose and whose primary object is not directed at making a profit.

Risk Management

Insurance

Under the current and new lease agreement, MIAC is required to maintain both building and public liability insurance.

Compliance inspections

Council's Facilities Services Unit conducts inspections to ensure compliance with occupant safety and building condition, and there are clauses under the lease to address any non-compliance to these.

The last building compliance inspection at MIAC was completed on 23 November 2020. Identified non-compliances were addressed by the group and finalised on 5 May 2021.

Proposed building works

Consent to proceed with the proposed building works is required from Council, as the land owner, prior to commencement. Before granting consent, Council officers will require robust costings,

quotations and evidence of MIAC's successful acquisition of grant funding to ensure project costs can be sufficiently covered by the lessee.

Financial

The lessee bears all costs associated with the preparation and registration of the lease. The lessee will also bear the cost of water usage, maintenance of the property as well as maintaining both building and public liability insurance. A sustainability check conducted by Community Cultural Development Officer in November 2020 confirmed MIAC is financially sound.

Prior to issuing land owners consent Council will require submission of evidence of costings and quotations of MIAC's successful acquisition of adequate grant funding to ensure the project costs can be sufficiently covered by the lessee.

People

This recommendation does not have any staff implications.

Environmental

Council's Tree Assessment Technical Officer attended a site inspection in May 2021 to assess potential impacts to existing vegetation from the proposed building works.

The identified severe vegetation impacts have since been addressed by MIAC and reflected in the plans amended and supported by Council officers.

In order to ensure the protection and long term retention of significant trees, MIAC is requested to engage an arborist in order to develop suitable tree protection measures in accordance with Australian Standards. The external arborist will develop the required tree protection methodologies and will monitor and review the measures throughout the projects lifecycle. Consent to proceed with proposed works will be subject to this requirement.

Social

Renewal of the lease will allow MIAC to continue supporting diverse potters, sculptors and artists living on the Southern Moreton Bay Islands.

Human Rights

There are no impacts to Human Rights as a result of this report.

Alignment with Council's Policy and Plans

Our Future Redlands – A Corporate Plan to 2026 and Beyond, particularly:

GOAL 2. Strong Communities

2.1 Enhance the health, safety and wellbeing of our community through the delivery of inclusive and responsive services focused on preserving and improving our naturally wonderful lifestyle by leveraging partnerships, networks, facilities and infrastructure.

2.4 Enhance community inclusion where people of all locations, ages, abilities and cultures can participate and have access to the necessary services and facilities.

GOAL 5. Liveable Neighbourhoods

5.1 Enhance the unique character and liveability of our city for its communities through co-ordinated planning, place making, and management of community assets.

CDV-001-P Community Leasing Policy supports leases to not-for-profit community organisations.

CONSULTATION

Consulted	Consultation Date	Comments/Actions
Planning Liaison Officer	17 February 2020	Attended pre-lodgement meeting to determine application requirements for proposed building works.
Principal Planner	17 February 2020	Attended pre-lodgement meeting to determine application requirements for proposed building works.
Assessment Engineer	17 February 2020	Attended pre-lodgement meeting to determine application requirements for proposed building works.
Team Leader, Plumbing Services	17 February 2020	Attended pre-lodgement meeting to determine application requirements for proposed building works.
QYAC	13 May 2020	Confirmed no impact to Native Title and requirement for Cultural Services Heritage Monitor.
Councillor – Division 5	20 September 2020 27 October 2020 16 November 2020 23 August 2021	Updated regarding progression of lease renewal. Notified of pending Council report.
Service Manager, Strengthening Communities	23 September 2020 13 May 2021	Provided in principle support of proposed 10 year lease and lodgement of MCU application.
Sport and Recreation Officer, City Sport and Venues	24 September 2020	Provided in principle support of proposed 10 year lease.
Senior Advisor, Environmental Planning and Policy	6 October 2020	Provided in principle support of proposed 10 year lease.
Service Manager, Facilities Services	12 October 2020	Provided in principle support of proposed 10 year lease.
Facilities Coordinator, Facilities Services	15 October 2020 23 November 2020	Provided in principle support of proposed 10 year lease. Completed building compliance inspection.
Community Cultural Development Officer	12 October 2020 20 November 2020	Provided in principle support of proposed 10 year lease. Completed sustainability check.
Landscape Architect, Civic and Open Space Asset Management	16 November 2020 24 May 2021 7 June 2021	Provided in principle support of proposed 10 year lease. Attended site inspection. Provided support of draft plans for MCU application submission.
Senior Traffic Engineer	24 May 2021 7 June 2021	Attended site inspection. Provided support of draft plans for MCU application submission.
Tree Assessment Technical Officer	24 May 2021 7 June 2021	Attended site inspection. Provided support of draft plans for MCU application submission.

OPTIONS

Option One

That Council resolves as follows:

1. To approve and discharge a new lease to Macleay Island Arts Complex Inc. over part of Lots 283, 284 and 285 RP31212 situated at 26 Benowa Street and 93-95 Coast Road Macleay Island, as shown on Attachment 1, for a term of 10 years.
2. To agree in accordance with s.236(2) of the *Local Government Regulation 2012* that s.236(1)(b)(ii) of the *Local Government Regulation 2012* applies allowing the proposed lease to a community organisation, other than by tender or auction.
3. To authorise the Chief Executive Officer to execute all documents in regard to this matter.

Option Two

That Council does not approve a new lease to Macleay Island Arts Complex Inc. and investigates alternative arrangements.

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/221

Moved by: **Cr Mark Edwards**
Seconded by: **Cr Peter Mitchell**

That Council resolves as follows:

1. **To approve and discharge a new lease to Macleay Island Arts Complex Inc. over part of Lots 283, 284 and 285 RP31212 situated at 26 Benowa Street and 93-95 Coast Road Macleay Island, as shown on Attachment 1, for a term of 10 years.**
2. **To agree in accordance with s.236(2) of the *Local Government Regulation 2012* that s.236(1)(b)(ii) of the *Local Government Regulation 2012* applies allowing the proposed lease to a community organisation, other than by tender or auction.**
3. **To authorise the Chief Executive Officer to execute all documents in regard to this matter.**

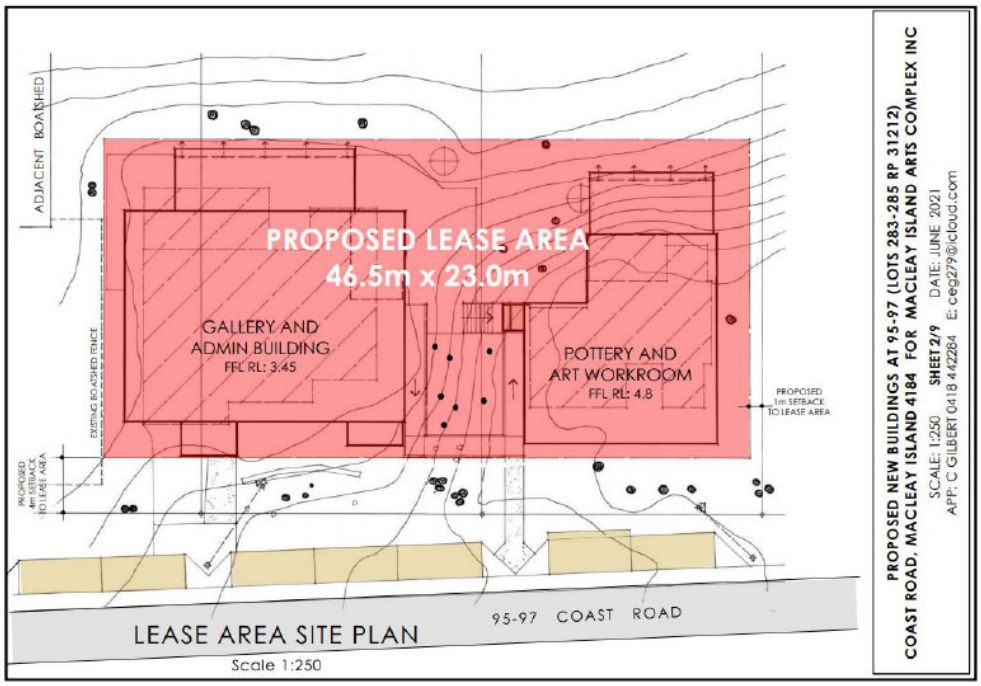
CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

Attachment 1

Macleay Island Arts Complex Inc. – Part of Lots 283, 284 and 285 RP31212

Proposed lease area outlined in red.



16 NOTICES OF INTENTION TO REPEAL OR AMEND A RESOLUTION

Nil

17 NOTICES OF MOTION

17.1 NOTICE OF MOTION CR JULIE TALTY - GEOTECHNICAL ENGINEERING ASSESSMENT AND SOIL TESTING

Objective Reference: A5745593

Attachments: Nil

In accordance with section 6.16 of *Council Meeting Standing Orders*, at the General Meeting scheduled for Wednesday, 15 September 2021, 21 April 2021, notice is hereby given that Cr Julie Talty intends to move the motion as follows:

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/222

Moved by: Cr Julie Talty
Seconded by: Cr Mark Edwards

That Council resolves as follows:

1. **To authorise further geotechnical engineering assessment and soil testing as recommended in the Cardno Report at 4.3.1 dated 20 April 2020 into ground movement around sewer and water pipes in the area of Cordia Close, Redland Bay.**
2. **That this assessment when completed, as well as the results of the drill tests be made available to residents of Cordia Close.**

CARRIED 10/1

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

Cr Lance Hewlett voted AGAINST the motion.

BACKGROUND

The background around this matter is considered to be confidential under Section 254J(3)(g) of the *Local Government Regulation 2012*, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which public discussions would be likely to prejudice the interest of the local government.

18 URGENT BUSINESS WITHOUT NOTICE

Nil

19 CONFIDENTIAL ITEMS

MOTION TO MOVE INTO CLOSED SESSION AT 11:50AM

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/223

Moved by: **Cr Rowanne McKenzie**
Seconded by: **Cr Peter Mitchell**

That Council considers the confidential report(s) listed below in a meeting closed to the public in accordance with Section 254J of the *Local Government Regulation 2012*.

CARRIED 9/2

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

Crs Paul Gollè and Lance Hewlett voted AGAINST the motion.

19.1 Quandamooka Coast Native Title Federal Court Claim Update

This matter is considered to be confidential under Section 254J(3)(e) of the *Local Government Regulation 2012,* and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with legal advice obtained by the local government or legal proceedings involving the local government including, for example, legal proceedings that may be taken by or against the local government.

Overview

To update Council on the Quandamooka Coast Native Title Federal Court Claim.

19.2 Earthteck Pty Ltd -v- Redland City Council Appeal No. 1915 of 2021

This matter is considered to be confidential under Section 254J(3)(e) of the *Local Government Regulation 2012*, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with legal advice obtained by the local government or legal proceedings involving the local government including, for example, legal proceedings that may be taken by or against the local government.

Overview

To seek Council position on the development for the application in the Planning & Environment Court.

19.3 Preliminary and Detailed Design Phase for Redlands Coast Regional Sport and Recreation Precinct

This matter is considered to be confidential under Section 254J(3)(g) of the *Local Government Regulation 2012*, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

Overview

Outline the components of the Preliminary & Detailed Design phase of the Redlands Coast Regional Sport and Recreation Precinct project.

MOTION TO MOVE INTO OPEN SESSION AT 12:46PM

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/224

Moved by: **Cr Mark Edwards**
Seconded by: **Cr Peter Mitchell**

That Council moves out of Closed Council into Open Council.

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

19.1 QUANDAMOOKA COAST NATIVE TITLE FEDERAL COURT CLAIM UPDATE

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/225

Moved by: **Cr Peter Mitchell**
Seconded by: **Cr Rowanne McKenzie**

That Council resolves as follows:

1. **To note the update on the Native Title Mainland Quandamooka Coast Claim.**
2. **That this report and attachment remain confidential subject to the principles of the *Right to Information Act 2009* and Federal Court disclosure requirements.**
3. **That this report and attachments remain confidential until such a time as required by any legal or statutory obligation, subject to maintaining the confidentiality of legally privileged, private and commercial in confidence information.**

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

19.2 EARTHTECK PTY LTD -V- REDLAND CITY COUNCIL APPEAL NO. 1915 OF 2021

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/226

Moved by: **Cr Wendy Boglary**
Seconded by: **Cr Peter Mitchell**

That Council resolves as follows:

1. **To advise the Court and Appellant that Council contends that the proposal in its current form be refused, for the reasons generally in accordance with those identified in Attachment 2.**
2. **To note that the reasons for refusal will be finalised after consultation and advice from the relevant experts and Counsel.**
3. **To note the Chief Executive Officer using his existing authority under s.240 of the *Local Government Act 2009* will negotiate a resolution of the dispute should such a contingency emerge (having regard to legal advice and expert opinion), during the course of the proceeding having regard to the content in this report.**
4. **That this report and attachments remain confidential until the conclusion of the appeal, subject to maintaining the confidentiality of legally privileged and commercial in confidence information.**

CARRIED 9/2

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

Crs Julie Talty and Rowanne McKenzie voted AGAINST the motion.

19.3 PRELIMINARY AND DETAILED DESIGN PHASE FOR REDLANDS COAST REGIONAL SPORT AND RECREATION PRECINCT

OFFICER'S RECOMMENDATION/COUNCIL RESOLUTION 2021/227

Moved by: **Cr Peter Mitchell**
Seconded by: **Cr Julie Talty**

That Council resolves as follows:

1. **Note the contents of this report and approve the funding requirements for the Project.**
2. **Note that the tender evaluation process for the preliminary and detailed design will be conducted in accordance with relevant delegations, procurement policy and guidelines for the entire scope of the Redlands Coast Regional Sport and Recreation Precinct project.**
3. **That this report remains confidential until such a time as required by any legal or statutory obligation, subject to maintaining the confidentiality of legally privileged, private and commercial in confidence information.**

CARRIED 11/0

Crs Karen Williams, Wendy Boglary, Peter Mitchell, Paul Gollè, Lance Hewlett, Mark Edwards, Julie Talty, Rowanne McKenzie, Tracey Huges, Adelia Berridge and Paul Bishop voted FOR the motion.

20 MEETING CLOSURE

The Meeting closed at 12:47pm.

The minutes of this meeting were confirmed at the General Meeting held on 20 October 2021.

K Williams

.....

CHAIRPERSON