

Torres Strait Island
REGIONAL COUNCIL

AGENDA

CLIMATE CHANGE ADAPTATION AND ENVIRONMENT COMMITTEE

Date: 10th February 2021

Time: 1:00pm to 4:00pm

Venue: VMR #6 – 0292 970 558

Agenda

1. Welcome (Chair)
2. Opening Prayer
3. Apologies
4. Conflict of Interest (COI)/ Material Personal Interest (MPI) Declaration
5. Confirmation of Minutes – 2nd November 2020
6. Action Items from previous meeting
7. Terms of Reference Discussion
8. Standing Agenda Items Discussion
 - Quarterly update on current and future works in the Region to address Climate change and Environmental issues – Chief Engineer
9. Meeting Dates for 2021
 - 23 June 2021
 - 25 August 2021
 - 27 October 2021
10. General/ Other Business (on notice)
11. Next meeting date – 23 June 2021
12. Closing Prayer

Terms of Reference for the Climate Change Adaptation and Environment Committee

1. Objective

The Climate Change Adaptation and Environment Committee is established as a standing committee under section 264 of the *Local Government Regulation 2012*.

The Committee members should:

- Be proactively involved in the portfolio area
- Review and shape Council's policy position of portfolio area
- Develop desktop management system for the portfolio area
- Develop, advocate and lead community engagement process/program with key stakeholders and departments in the portfolio area
- Represent the Mayor/Deputy at conferences/workshops/meetings in the absence of the Mayor/Deputy
- Address Council on strategic matters in relations to the portfolio areas
- Provide cultural advice and assistance

2. Portfolio Area

The Committee's portfolio area covers:

- Torres Strait Climate Change Strategy
- Torres Strait Sea Wall Program/Project
- Torres Strait and North Peninsula Area Biosecurity Plan
- Renewable Energy Productions
- Waste Management
- Land & Sea Management

3. Term

The Climate Change Adaptation and Environment Committee is effective from 1 August 2020 until terminated by Council.

4. Membership

Members shall be:

- The Mayor
- Three Councillors – as nominated by Council

The Council will determine who will be the chair.

Councillor members elected by Council at Council's June 2020 Ordinary Meeting:

- Cr H Mosby - Chair
- Cr Tamu
- Cr Dorante

5. Standing Orders and Meeting Procedures

Council's Standing Orders Policy and Meeting Procedures Policy apply to the meetings of the Committee.

Where a member misses two consecutive meetings without formal apology, the member will be removed from the Committee and Council will nominate a replacement at its next ordinary meeting.

6. Meetings

The Committee will meet quarterly unless otherwise scheduled. The Committee will meet monthly unless otherwise scheduled. These meetings will be open to the public unless the Committee resolve to close the meeting under section 275 of the *Local Government Regulation 2012*.

Meeting quorum shall be two members.

Attendance may be via videoconference or teleconference; however, the Reference Group will meet face-to-face wherever possible by aligning meeting times with other Council approved travel e.g. Monthly Council Meetings, Council workshops.

Agenda items and papers must be provided to the Secretariat at least ten (10) working days prior to the meeting date. Late submissions will only be included with the written approval of the Chair.

Agenda items and papers will be distributed via email to members at least five (5) working days prior to the meeting date.

Written minutes are required to be published within ten days of the meeting and endorsed at the following Ordinary meeting.

7. Amendment, Modification or Variation

These Terms of Reference may be amended, varied or modified in writing with approval from Council.

8. Executive Support

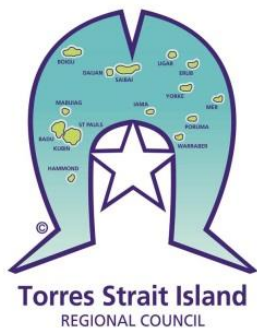
An Executive Officer will be assigned to the Committee to provide support to the committee members and be liaison between the elected members and the administration.

Executive Officer assigned to Committee: Chief Engineer

9. Administrative Support

Secretariat support will be provided by the Secretariat Office.

Terms of Reference endorsed by Council resolution at xxxx 2020 Ordinary Meeting.



TORRES STRAIT ISLAND REGIONAL COUNCIL

BRIEFING PAPER

TO: Councillor Hilda Mosby

FROM: David Baldwin, Chief Engineer

SUBJECT: Climate Change Adaptation and Environment Committee Update

DATE: Tuesday 09 February 2021

Background

The purpose of this report is to provide an update to the Climate Change Adaptation and Environmental Committee in relation to projects/works being undertaken by Council's Engineering Services Department.

The key projects that are in line with the portfolio scope for the Climate Change Adaptation and Environmental Committee are outlined below but are not limited to;

- Coastal Defence Works/Projects (Seawalls Program)
- Metal Waste legacy Clean-up Project
- Coastal Hazards and Adaptation Study (CHAS)
- Queensland Indigenous Waste Strategy
- Rain Gauges Project
- Tidal Gauge Project

1.0 Torres Strait Climate Change Strategy

In the Torres Strait Climate Change Strategy space, TSIRC Engineering is currently working on:

- The development of TSIRC's Coastal Hazard Adaptation Study (CHAS)
- Providing assistance/support to DATSIP in relation to the Master Planning
- Delivery of the Tidal Gauge Project
- Delivery of installation of additional rain gauges funded by QRA.

Coastal Hazards and Adaptation Study (CHAS)

QCoast2100 is a one-off funding program administered by the Queensland Government's Local Government Association of Queensland (LGAQ). It is designed to assist coastal Councils in making decisions regarding long-term management and response to the coastal hazards facing their communities, through the development of a CHAS.

The Coastal Hazard Adaptation Strategy considers the risks to all 15 TSIRC communities posed by coastal hazards: coastal erosion, permanent inundation due to sea-level rise and inundation due to storm tide. It follows an eight-Phase prescribed process, as set out in QCoast2100's Developing a Coastal Hazard Adaptation Strategy: Minimum Standards and Guideline for Queensland Local Governments.

The following Phases (1 & 2) have previously been completed (GHD):

- Phase 1: Plan for life-of-project stakeholder communication and engagement;
- Phase 2: Scope coastal hazard issues for the area of interest.

TSIRC has just completed Phase 3 (GHD) in February 2021:

- Phase 3: Identify areas exposed to current and future coastal hazards

TSIRC is currently undertaking phase 4 & 5, and have just engaged Alluvium Consulting complete Phase 4 & 5:

- Phase 4: Identify key assets potentially impacted;
- Phase 5: Risk assessment of key assets in coastal hazard areas;

Note: Phase 4 & 5 is forecasted to be completed by August 2021

The following Phases are yet to be funded, however, there has been indications that additional timeframes and funding will be available to remote Councils to complete these Phases:

- Phase 6: Identify potential adaptation options;
- Phase 7: Socio-economic appraisal of adaptation options;
- Phase 8: Strategy development, implementation and review.

In parallel, TSIRC has commenced preliminary discussions with Torres Shire Council (TSC) and Torres Strait Regional Authority (TSRA) on the possibility of combining resources to develop a regional coastal adaptation strategy. A perceived benefit of a regional approach is being able to provide coordinated consultation processes, options and solutions for coastal hazard adaptation to communities across the region. There is also the potential for increased access to funding sources, which will be necessary following the closure of the QCoast2100 program.

DATSIP Master Planning

TSIRC Engineering staff have been integral in assisting DATSIP with the delivery of the Master Planning for TSIRC communities. However, Council input into the Master Planning has been very minimum.

Tidal Gauge Project

Detailed update provided in January 2021 COM – Information Report – Tidal Gauge Project Update

In summary, TSIRC have secured funding from TSRA for installation of new Tidal Gauges and maintenance and repair of existing tide gauges, to the value of \$822,422.00.

Some tidal gauges already exist throughout the Torres Strait, however strong localised tidal effects can cause inaccuracies; additional tide gauges are required for accurate measurements and reporting.

A 5-year maintenance period for both existing and new tide gauges will commence from the installation date.

The funding from TSRA was allocated to fund the following activities in relation to sea level gauge operations and tidal plane study.

1. New Tide Gauge Installations (4 Sites)

- Lite tide gauges to be installed at Boigu, Masig, Poruma and Warraber.
2. Tidal Plane Studies – Existing & New Tide Gauges (11 Sites)
 - Complete studies using longer datasets to determine more accurate tidal planes:
 - i. Tidal plane studies using 12 months of historical data recorded from decommissioned and existing tidal gauges at Boigu (pile), Dauan (decommissioned), lama, Kubin, St Pauls, Thursday Island and Ugar (7 sites).
 - ii. Tidal plane studies using 3 months of data from new tide gauges at Boigu (dolphin), Masig, Poruma and Warraber (4 sites). The 3 month study is to provide some preliminary information to consultants to use in TSIRC's Coastal Hazard Adaption Strategy work, prior to completion of the 12 month study.
 - iii. Tidal plane studies using the full 12 months of data from new tide gauges at Boigu (dolphin), Masig, Poruma and Warraber (4 sites).
 3. Five Year Storm Tide Gauge Maintenance Contract
 - Five Year storm tide maintenance contract with DES.
 4. Replacement of lama & Kubin Dolphin Ladders
 5. TSIRC Allowance for Management of the Tide Gauges.
 - Five years for TSIRC to manage the Storm Tide Gauge Maintenance Contract.

The new tide gauges were recently installed by DES at 4 sites (Boigu, Masig, Poruma & Warraber). 12-month tidal plane studies are now underway, with results to be provided in due course. DES have commented in their report that marine users have been tying up boats and cray pots to the tide gauges which result in bad data being recorded. The project manager will work with the Communications department to send out educational posts on this topic, and will work to develop signage for the next maintenance trip.

Procurement procedures were performed earlier in 2020 for the replacement of lama & Kubin dolphin ladders. Once quotes are revalidated, these works will commence as soon as practicable.

Rain Gauge Project

Project Funding Schedule for the Flood Warning Infrastructure Network Project, funded under Category D of the DRFA following the North and Far North Queensland Monsoon Trough in 2019. TSIRC has accepted the funding, based on discussions in late 2020 with both the Queensland Reconstruction Authority and Bureau of Meteorology (BOM).

The total funding amount from QRA is \$40,000.00 with funding deadline of 30 June 2022.

The key objective of the funding is to fund the procurement and installation of two new rain gauges at two new locations.

QRAs initial expectation was that TSIRC would upload rainfall data to the BOM flood warning network. However, BOM has stated that it does not require TSIRCs data, as it has weather stations in the region that provide a greater array of data (not just rainfall). TSIRC has secured agreement from QRA/BOM that the new rain gauges will only supply rainfall data to TSIRCs SCADA system.

2.0 Torres Strait Seawall Program/Project

In the Torres Strait Seawall Program/Project, TSIRC Engineering is currently working on:

- The delivery of Torres Strait Seawalls Programme (Stage 2) which is funded by the State and Commonwealth Government with a total grant funding of \$40 Million.
- The purpose of the seawalls programme is to provide suitable coastal defence structures to build resilience against tidal inundation, erosion and damage to community infrastructure in the Torres Strait communities of Boigu, Poruma, Iama, Warraber and Masig.

Below is a high level update on Seawalls works in each of the identified communities under the current \$40 Million funding.

Note: Detailed scope of works for individual communities can be made available upon request for each community along with Concept Designs outlined proposed 'Scope of Works'.

Boigu Island (Stage 2)

Forecasted Budget: \$15 Million
Forecasted Start Date: Onsite construction works are currently underway
Forecast End Date: August 2021

This project has been awarded to Koppens Construction in February 2020. Onsite construction works have commenced in August 2020 due to COVID19 delay and forecasted Practical Completion in August 2021. The project consists of rock armour seawall, wave return wall, bund wall extension, and repairs/upgrades to existing seawall structures.

Reference Contract No. TSIRC2019-203.

Poruma Island (Stages 2 – 5*)

Forecasted Budget: \$5 Million
Forecasted Start Date: June 2021
Forecasted End Date: March 2022

Planning and approvals for this project are currently being finalised with TSIRC Project Manager submitting In-House Bid to the funding body in relation to Council Civil Crew to undertake the constructions works. Procurement of geo bags for the construction of the seawall has been initiated.

Masig Island

Forecasted Budget: \$6 Million
Forecasted Start Date: April 2022
Forecasted End Date: March 2023

The project is currently at the concept design stage. An order has been raised to engage RPS to undertake surveying and geotechnical works to finalise the Detailed Design. Approvals for this project will then be sought through an In-House Bid process to enable Council Civil Crew to undertake the delivery of the proposed seawall construction works on site following completion of the Poruma seawalls works.

Warraber Island

Forecasted Budget: \$7 Million
Forecasted Start Date: December 2022
Forecasted End Date: November 2023

The project is currently at the concept design stage. An order has been raised to engage RPS to undertake surveying and geotechnical works to finalise the Detailed Design. This project will be tendered out to an external contractor to undertake the proposed works. It is proposed that Warraber and lama coastal defence works will be packaged together to demonstrate VfM.

lama Island

Forecasted Budget: \$7 Million
Forecasted Start Date: March 2022
Forecasted End Date: December 2023

The project is currently at the concept design stage. An order has been raised to engage RPS to undertake surveying and geotechnical works to finalise the Detailed Design. This project will be tendered out to an external contractor to undertake the proposed works. It is proposed that Warraber and lama coastal defence works will be packaged together to demonstrate VfM.

3.0 Waste Management

In the waste management space, TSIRC is working on:

- Providing support to the development of the Regional Waste Management Plan under the **Queensland Indigenous Waste Strategy (QIWS)**;
- Working on ways to **reduce inputs to island landfills**, including Council and community vehicles and construction and demolition waste; and
- Developing a plan to remove **wreck vehicles** from the islands for recycling which is the **Metal Waste Legacy Clean Up Project**.

Queensland Indigenous Waste Strategy

In recognition of the extremely high cost and difficulty in providing adequate waste management in the Torres Strait, the Queensland Government, through LGAQ has engaged APC Consulting to work closely with TSIRC, TSC and NPARC to develop a Regional Waste Management Plan, under the QIWS. The Torres Strait was identified as the highest priority of all indigenous areas in Queensland, and as such is the first to be considered for initial plan development.

TSIRC is providing support to the project to ensure outputs are fit-for-purpose, realistic and fundable. The project includes engaging with organisations such as CoEx (container exchange) and IBIS to assist in reducing local landfill inputs, high-level planning and costing of an appropriate combination of logistics network and local waste processing (e.g. BioBins), and provision of household recycling bins and community education to facilitate a transition to recycling and waste processing. Consideration is also being given to the conversion of appropriate existing landfills to transfer/processing sites, and developing local skills to run such facilities.

The project intends to deliver waste management solutions that TSIRC and neighbouring Councils can use to pursue funding opportunities for long-term solutions.

Metal Waste legacy Clean-up Project

The objective of this project is to strategically clean up long-term metal waste stockpiles across all 15 TSIRC landfills, stockpile areas and throughout communities. The metal waste streams include:

- Wreck vehicles
- Scrap metal and white goods
- Heavy plant, trucks and equipment

Project Background

This project has gone through several TSIRC Project Managers with varying plans to execute the metal waste clean in the past which is summarised below:

1. Use Civil Crew and chartered barges (original funding application submitted to DLGRMA for \$11M was unsuccessful);
2. Use Civil Crew and existing Sea Swift barge services to implement a long term management strategy based on DEC 2019 ARUP study (assuming the above \$11M funding was available, denied);
3. Similar to #2, though one-off clean-up only due to limited funding (second funding application for \$11M denied by DLGRMA);
4. Due to Civil Crew workload, difficulty in sequencing and limited funds, switch of thinking to one-off clean-up via contractor:
 - 4a. RFQ sent out for Early Contractor Involvement (ECI) works to plan project based on available funding (stopped process due to not capturing all external agencies with varied methodologies available, e.g. offshore shipping);
 - 4b. Open RFEOI sent out, 11 responses received from various providers – THIS IS THE FINAL COURSE OF ACTION, designed to identify all parties who would realistically want to contribute to the project.

Funding & Timeframe

Council currently has \$5.1M in funding from ICCIP with the funding deadline June 2022. The funding currently available will most likely not cover the removal of all waste streams from all islands. It is noted that this project will only focus on the removal of community wreck vehicles, not ex-TSIRC vehicles.



Council have advertised Expression of Interest (EOI) in December 2020. The objective of the EOI was to identify contractors who would realistically contribute to the project and shortlist potential contractors suitable for delivering the works.

Council is now in the process of engaging external engineering consultant to undertake a detailed review of the EOI respondents to develop the Tender Documentation and go out to Tender to the shortlisted EOI respondents.

Tender Award of the project is forecasted for July 2021 with implantation likely to commence late 2021.

Reducing landfill inputs

TSIRC is currently exploring ways to reduce waste inputs to island landfills, to reduce pressure on sites with limited space and resources. This will include:

- Proposing strategies to arrest the accumulation of wreck vehicles on the islands;
- Working within TSIRC and with external agencies to ensure that construction and demolition waste is shipped to the mainland rather than input into island landfills, whilst in-keeping with biosecurity restrictions; and
- Taking steps to ensure newly-constructed assets are built using materials that consider longevity and end-of-life disposal.

In January 2021, TSIRCs Local Laws and Register of Fees and Charges were amended to allow Council to cease accepting construction waste at all fifteen waste management facilities.

Council's landfills and waste stockpiling areas are lacking in appropriate resources including appropriate heavy plant, waste management infrastructure, dedicated waste management staffing and staffing amenities, are subject to multiple environmental and compliance challenges and legacy issues, and are often sited in inappropriate locations. To transition to a sustainable waste management model, Council must extend the life of its existing sites, reduce the operational burden on maintaining such sites, and work towards addressing compliance issues through critical waste reduction measures.

TSIRC Engineering is currently engaging with internal Council departments (Engineering Operations, Capital Works, BSU) to ensure a better understanding of impending changes. The next step is to engage with external parties in relation to the impending changes.

In conclusion, the projects/works outlined in this briefing paper highlight the works Engineering are currently undertaking in the field of Climate Change Adaptation and Environment portfolio scope.

Thanks & Kind regards,

David

David Baldwin | Chief Engineer

Torres Strait Island Regional Council



Phone: 07 4048 6301 Mobile: 0409 600 666

Fax: 07 4034 5750

Address: PO Box 7336, Cairns, QLD 4870

Website: www.tsirc.qld.gov.au

Email: david.baldwin@tsirc.qld.gov.au

