MINUTES OF MEETING

Bundaberg Coastal Hazard Adaptation Strategy
Community Reference Group (CRG)

<table>
<thead>
<tr>
<th>Held At:</th>
<th>Function Room, Bundaberg Regional Council  Administration Centre 190 Bourbong Street, Bundaberg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date &amp; Time:</td>
<td>Thursday, 21 March 2019, 6:00 pm – 8:00 pm</td>
</tr>
<tr>
<td>Present:</td>
<td>CRG Members – Russell Stewart, Chris Mcloughlin, Heath Greville, Josephine Ferris, Tony Ricciardi, Jennifer Parry, Collin Turner, George Martin, Robert Bell, Shanelle Pekin, Council – Cr Bill Trevor (Chair), Cr Jason Bartels, Cr Wayne Honor, Cr Greg Barnes, Dwayne Honor (Project Manager), Evan Fritz (Strategic Planning), and Sally Obst (Natural Areas) Beth Whitworth (Disaster Management), and Natalie McDonald (Senior Administration Officer) Project Consultant - Jo Tinnion &amp; Richard Sharp (Water Technology)</td>
</tr>
<tr>
<td>Apologies:</td>
<td>Council – Cr Scott Rowleson</td>
</tr>
</tbody>
</table>

BUSINESS OF MEETING

1. **Introductions and Welcome (Cr Bill Trevor)**

   The Chair welcomed the CRG members to the workshop and fellow Councillors, Jason Bartels, Wayne Honor and Greg Barnes. He noted that tonight’s meeting would also incorporate a “mapping” exercise in the adjoining room. Each of the members around the table gave a brief introduction of themselves to all in attendance, as requested by the Chair. A copy of the minutes of the last meeting were circulated to all at the meeting (with a copy having previously being emailed) and they were accepted as read.

   Dwayne Honor asked for comments on the Draft Community Value Survey which had been circulated by email to all the CRG members prior to the meeting. No comments were received and it was agreed by the Members that the survey be circulated to the community.

   **Our Coast Update (Dwayne Honor & Jo Tinnion)**

   **Project Update.**

   Dwayne Honor commenced with the attached Powerpoint Presentation (Annexure A) and advised that we would be looking at Phase 3 Coastal Hazard Mapping, with the interactive session (as noted by
the Chair) to be held next door in the Council Chambers. The exercise seeking member’s knowledge of their past experiences of coastal hazards and asset exposure, to map on the series of maps placed on the tables.

2. Output from CRG Meeting No 2 (Dwayne Honor & Jo Tinnion)

_Description of how output from meeting used to develop Community Values Cycle and Community Values Survey._

Jo Tinnion (Project Consultant of Water Technology) recapped on the previous meeting, noting the gathered information was analyzed to provide insight into characteristics of the community and what is valued, and to develop the Place Based Community Values Cycle. These values will help us shape and mitigate coastal risks and forms an important part of the CHAS’ philosophy.

3. Our Coastal Communities – Hazard and Exposure (Jo Tinnion)

_An introduction to coastal hazard by sharing the extent mapping, followed by discussion of what impacts from coast hazard the group has experienced and key assets and features of value._

Jo Tinnion (Project Consultant of Water Technology) presented coastal mapping, storm tide inundation and coastal erosion. The storm tide mapping will allow comparison between today and in the future.

The Storm Tide mapping was derived using the Natural Disaster Resilience Program (NDRP) Storm Tide Hazard Interpolation Study (GHD, 2014) commissioned by the Queensland Government Department of Science, Information Technology, Innovation and the Arts (DSITIA). This was a state-wide study to provide storm tide hazard information across Queensland. Data from previous studies were normalised and brought together to estimate storm tide levels for 5% to 0.01% AEP events across the state.

The Erosion Prone Area mapping focussed upon key study locations which were considered in detail, namely Miara, Moore Park Beach, Bargara, Innes Park, Coonarr and Woodgate Beach. No analysis was undertaken on the remainder of Council’s coastal areas, instead the existing Queensland Government data for erosion prone areas was adopted for all other areas. This has been estimated by using a buffer zone which takes into account a number of complex interactions of the many physical processes acting on any particular foreshore.

Cr Trevor commented that early climate change predictions from decades past differed to that of today and earlier rates of sea level rise may not have been fully realised. Jo Tinnion highlighted that a trigger based approach was specifically being adopted in the Bundaberg CHAS so clear decision points and adaptation pathways can be established and enacted if necessary. In this way if climate predictions do not eventuate, then no further action is required.
The CRG members moved to the interactive session to undertake the mapping exercise to identify their experiences and observations of storm tide inundation and coastal erosion and the impact on assets in their communities’ area of representation. Their comments were plotted on the area based maps by category:

1. Infrastructure – Roads/Pipes: Red Dots
2. Recreational: Blue Dots
3. Environmental/Cultural Assets: Green Dots
4. Property/Building: Yellow Dots

- Refer Annexure B for copy of area based maps with comments;
- Refer Annexure C for Table summarising the settlement based observations of the CRG members.

Jo Tinnion advised the mapping will allow an understanding of what is currently happening in each community to inform adaptation options in future work.

Discussions were had on the interactive mapping session with the following comments noted:

- CRG Member noted that the mapping was great, however it would be beneficial to get it out to the greater community for feedback. By consensus it was decided that digital versions of the mapping be made available on the project website.
- Dwayne Honor encouraged the group to have these conversations, and suggested marking up areas identified by their discussions on Google Maps and sending through to the OurCoast email address.
- A CRG Member suggested going back to their community groups to capture the information. Dwayne Honor advised maps could be made available for members to take to their Community Group meetings.
- Dwayne Honor noted resourcing concerns with two key members of the group, Matt Dyer (Disaster Management) and Nick MacLean (Natural Resource Management) moving on from Council.
- It was suggested Divisional Councillors could assist by bringing information captured from community group meetings to the CRG Reference Group meeting.
- There is potential for further meetings at Moore Park, Burnett Heads, Woodgate and Winfield/Miara

4. Future Meetings (Jo Tinnion)

The dates and purpose of future CRG Meetings are noted in the table below:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
<th>Date and Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Mapping of how risk is distributed across region in terms of acceptability through to unacceptable</td>
<td>Thursday, 9 May 2019 – 12 pm to 4 pm</td>
</tr>
<tr>
<td>6</td>
<td>Development of settlement specific adaptation options including issues, opportunities and constraints</td>
<td>Thursday, 6 June 2019 – 6 pm to 8.30 pm</td>
</tr>
</tbody>
</table>
Phase 7 – MCA of adaptation options informed by conjoint analysis to develop list of options with high social, economic and environmental performance  

Phase 8 – Strategy and implementation Plan linked to resilience baseline improvements coupled with development of monitoring and evaluation process.

| Phase 7 – MCA of adaptation options informed by conjoint analysis to develop list of options with high social, economic and environmental performance | Thursday, 18 July 2019 – 12 pm to 4 pm |
| Phase 8 – Strategy and implementation Plan linked to resilience baseline improvements coupled with development of monitoring and evaluation process. | Thursday, 15 August 2019 – 6 pm to 8.30 pm |

5. Closing:

The Chair thanked all in attendance.

This concluded the business of the CRG Meeting at 7.15 pm.

Cr Bill Trevor, Chairperson
OUR COAST Community Reference Group
Welcome!
Bundaberg Region
Coastal Hazard Adaptation Strategy

Community Reference Group Workshop #3
6.00pm to 8.30pm
21st March 2019
Agenda

• Welcome & Introduction  
  Cr Bill Trevor

• Our Coast update from Project Team  
  Dwayne Honor and Jo Tinnion

• Output from CRG Meeting #2  
  Dwayne Honor and Jo Tinnion

• Our coastal exposure – coast hazard and assets  
  All

• Future meetings and workshops  
  Dwayne Honor
CHAS leading the way

- Queensland Government and LGAQ won the Award for Climate Adaptation at Australian Coastal Councils Association conference
  8 March 2019
- ‘QCoast2100 – Developing Coastal Hazard Adaptation Strategies for Queensland’s local governments.’
CRG Meeting #2

- Feedback analysed helping in understand community characteristics, priorities and challenges
- Insights gained leading to development of the Place Based Community Values Cycle
- Potential actions identified including Community Values Survey

NEXT STEPS
- Community Survey
- 'Listening Posts'
- Visit Community Groups & Schools?
Place Based Community Values Cycle

1. **WE LOVE WHERE WE LIVE**
   We live on the coast because we love all that it has to offer – the natural places, the lifestyle, the sounds, the smells, the views, and the people.

2. **WE ARE DEEPLY CONNECTED TO PLACE**
   We feel deeply connected to the coast and its values. We wouldn’t want to live anywhere else.

3. **WE HAVE A STRONG SENSE OF OWNERSHIP**
   Because we love the coast and are deeply connected to it, we feel like we own it and are responsible for it. Whether we are residents, business owners, or farmers, we feel like stewards of this land.

4. **WE ARE TIGHT-KNIT COMMUNITIES**
   Our sense of ownership means we band together as discrete communities. Each community is different, but we are all tight-knit.

5. **WE HAVE A DESIRE FOR SELF-ORGANISATION & SELF-RELIANCE**
   Because we love the coast and feel responsible for it, each of our tight-knit communities wants to be able to have a greater role in determining the future of our coast.

6. **WE WANT TO HAND OVER THE COAST TO OUR GRANDCHILDREN**
   Our Coast is a special place. We want to do what we can to give our children and grandchildren a place that provides the same values that we cherish now.
Storm tide inundation or coastal flooding by the sea is caused by an abnormal elevation of the sea level over expected tide levels.
Coastal Erosion

Coastal erosion is the loss of coastal lands due to the net removal of sediment or bedrock from the shoreline.

Coastal erosion can be caused by winds, wave and other natural forces.

Beach erosion occurs when waves and currents remove sand from the beach system.
Our Coast Values

What are the key assets and features valued by the community?

We would like to hear your experiences of coastal hazard:

• Storm tide inundation
• Coastal erosion

Do you recall the specific impacts of recent tidal events?

This exercise will help to frame the CHAS and assist in the settlement-based asset identification and risk assessment process.
Future Meetings

At the start of each phase we will seek your feedback and broad agreement as the CHAS develops:

<table>
<thead>
<tr>
<th>Phase 5 – Mapping of how risk distributed across region in terms of acceptability through to unacceptable</th>
<th>9 May 2019</th>
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<tr>
<td>Phase 7 – MCA of adaptation options informed by conjoint analysis to develop list of options with high social, economic and environmental performance</td>
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<td>Phase 8 – Strategy and Implementation Plan linked to resilience baseline improvements coupled with development of monitoring and evaluation process</td>
<td>15 August 2019</td>
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</table>
Questions?
MAPS

• Woodgate
• Winfield
• Nielsen Park / Bargara
• Moore Park Beach
• Innes Park / Coral Cove / Elliott Heads / Riverview
• Coonarr
• Buxton
• Burnett Heads
2013 Riverine flood event caused widespread damage to properties.

Properties affected by inundation from Baffle Creek.

Bosga - fishing habitat - recreational fishing very popular in Baffle Creek, generally.
Minor flooding occurs from overland flow and run-off from the land into Barolin drainage system.

Near intersection of Bargara Rd and Holland St becomes inundated during high tides and times of heavy rainfall.

Bargara Golf Club subjected to inundation during large Storm Tide events.

The Basin swimming zone located on Kelly's Beach. Built out of volcanic rock by Kanaka labour many years ago. Considered to be of cultural significance.

Swimming areas at mouth of lagoon could be lost with potential sea level rise scenarios.

The Causeway, Kelly's Beach affected at high tide and after periods of heavy rainfall.

Property at Arches Beach. The house is built onto the beach. Potentially impacted by Coastal Erosion.
Cyclone Debbie caused the Kolan River to break through. Trees lost as the river mouth moved.

Cyclone Oma led to coastal flooding and coastal erosion affecting properties in the northern part of Moore Park Beach. Much of the grassed areas were covered in sand.

Cyclone Oma caused 3-4m cliff drops along the beaches at Pacific Boulevard, the sediment returned with 3 or 4 days. As a preventative measure logs were placed along the dune, these logs moved during Cyclone Oma.

Moore Park Beach Rd closed for several days 100mm over the road.

Water observed over Moore Park Road at King Tide 21 Feb 2019.
Properties at these locations have experienced 2 to 3 metres in lateral movement of the foreshore from January to March 2019. The mouth of the creek approximately 8m.

The shoreline is encroaching close to the buildings.

Barolin Esplanade and surrounding roads are considerably road.

Innes Park Reserve is an important and popular parkland.

Innes Park

Natural rock formation protects the properties well from coastal hazards.

Legend
- Cadastral
- HAT line
- 1% AEP Erosion Prone Area (+0.8m SLR)
- 5% AEP Storm Tide Inundation
- 5% AEP Storm Tide Inundation (+0.8m SLR)
- 1% AEP Storm Tide Inundation
- 1% AEP Storm Tide Inundation (+0.8m SLR)

Assets and Features
- Infrastructure
- Property/Buildings
- Environmental
- Recreational

Elliott Heads Life Savers Park and Holiday Park at risk to Coastal Erosion

Protected shorebird habitat

Shoreline here considered to be very erosion prone.

Elliott Heads Beach access, cafe, car park and facilities

Boat Ramp position located off McIntosh Avenue.

Elliott Heads State School

Submarine Lookout

Atkinsons Road

Coral Cove Dr

Innes Park/ Coral Cove/ Elliott Heads/ Riverview

Riverview Rd
Burnett Heads

Legend
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Assets and Features
- Infrastructure
- Property/BUILDINGS
- Environmental
- Recreational

Planned Boat Ramp and water access
Potential losses of coastal walking, fishing and access
Caravan Park impacted by sea level rise scenarios
Zunker Road - Community Hall
Zunker Road - Low lying area with concerns about drainage
Burnett Heads Road - Low lying area with concerns about drainage
Properties impacted by heavy rainfall.
Sand Erosion during current high tide conditions, often very slow to recovery.
Damage experienced to the stairs access to beach.

Hermans Rd - Low lying area experienced water over road - concerns about drainage
Hermans Rd - Low lying Property has experienced inundation during heavy rainfall events.

Minor road flooding during heavy rainfall and high tides.
# Our Coast - Bundaberg Region Coastal Hazard Adaptation Strategy

## Community Reference Group Workshop 3

21 March 2019

## Discussion of the Community’s Experience of Coastal Hazard

### Coastal Hazard Exposure -

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<tr>
<th>Date and Time</th>
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<tbody>
<tr>
<td>Location</td>
<td>Bundaberg Administration Centre, Bundaberg Regional Council Offices, Bundaberg</td>
</tr>
<tr>
<td>Workshop purpose</td>
<td>Refresh the group about the CHAS and share progress, such as the coastal hazard mapping extents</td>
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<tr>
<td></td>
<td>Undertake a mapping exercise to:</td>
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<tr>
<td></td>
<td>• Share community’s experience of coastal hazard</td>
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<td></td>
<td>• Discuss and understand the community and asset exposure to coastal hazard across the region.</td>
</tr>
</tbody>
</table>

### Outcomes of mapping exercise:

The following table summaries the settlement based observations from the community reference group members.
<table>
<thead>
<tr>
<th>Settlement</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woodgate / Walkers Point</td>
<td>Theodolite Creek BBQ and picnic area is due for an upgrade in the coming months, this is subject to inundation in the 5% AEP Storm Tide event and in the Erosion Prone Area. The Walkers Point boat ramp is unsafe to use, frequent bogging and often visiting boat users get stuck. Recreational boardwalk through the lagoon.</td>
</tr>
<tr>
<td>Moore Park Beach</td>
<td>Cyclone Oma caused 3-4m cliff drops along the beaches at Pacific Boulevard, the sediment returned with 3 or 4 days. Harbour Esplanade: Planned Boat Ramp and water access Near Harbour Potential losses of coastal walking, fishing and access Near Lighthouse Park: Caravan Park impacted by sea level rise scenarios.</td>
</tr>
<tr>
<td>Burnett Heads</td>
<td>Elliott Heads Beach access, cafe, car park and facilities Elliott Heads Life Savers Park and Holiday Park at risk to Coastal Erosion</td>
</tr>
<tr>
<td>Innes Park / Coral Cove / Elliott Heads / Breviary</td>
<td>Swimming areas at mouth of lagoon could be lost with potential sea level rise scenarios. Wharf SL Boat Ramp and Pontoon exposed to Coastal Hazards</td>
</tr>
<tr>
<td>Nielsen Park / Bargara</td>
<td></td>
</tr>
<tr>
<td>Buxton</td>
<td></td>
</tr>
<tr>
<td>Coonarr</td>
<td></td>
</tr>
<tr>
<td>Winfield</td>
<td></td>
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**Environmental**

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area between Walkers Point and Burum Coast National Park</td>
<td>Cyclone Debbie caused the Kolan River to break through Trees losses as the river mouth moved. Elliott Heads: Protected shorebird habitat The Basin swimming zone located on Kelly's Beach. Built out of volcanic rock by Kanaka labour many years ago. Considered to be of cultural significance. Wharf SL Parklands exposed to Coastal Hazards Mangroves and Salt-mashes habitat of environmental significance Boaga - fishing habitat - recreational fishing very popular in Baffle Creek, generally</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Roads and pedestrian footpaths at risk to Coastal Erosion all along Woodgate frontage. Major sewage treatment site Culverts under Woodgate Road. Key access route to the settlement of Woodgate. Walkers Point - Rock Wall existed for over 25 years that continues to protect the foreshore.</td>
</tr>
<tr>
<td>Property</td>
<td>Frizzels Rd property - development approval for a subdivision and associated infrastructure. Residential properties exposed to Coastal Erosion and Storm Tide inundation. Properties developed in the area have filled to 3.6m AHD. Residential properties exposed to Storm Tide inundation.</td>
</tr>
</tbody>
</table>