

Bundaberg Regional Council

Burnett River Floodplain Action Plan Consultation Report

October 2013



Executive summary

From mid-September to early October 2013, Bundaberg Regional Council sought ideas and feedback from the community to better understand what options and strategies they would like Council to consider as part of the Burnett River Floodplain Action Plan.

This public ideas collection was supported by a dedicated, independently facilitated Community Reference Group that will be in place until the Action Plan is adopted by council. In addition to the public ideas collection, technical input from key stakeholder organisations, known as the Technical Working Group, has been sought at critical points in the process.

The ideas and feedback from the public, Community Reference Group members, and the Technical Working Group representatives has been summarised in this Consultation Report and will be fed into a Multi-Criteria Assessment process which occurred at the end of October.

To encourage community-wide interest and participation, the team undertook a range of activities in the lead-up to the public consultation phase. Activities included:

- Media relations leading to interviews on ABC Wide Bay, 4BU and Seven and editorial coverage in the Bundaberg NewsMail newspaper
- Updates on the Council website in prominent locations
- Re-establishment of the dedicated email: floods@bundaberg.qld.gov.au
- Stakeholder briefings and presentations
- Advertisements in three local papers
- Facebook posts and Tweets reaching 4,000+ people.

There were over 280 people who participated at 10 Community Information Sessions at six locations, as outlined in Table 1. The atmosphere was open, informative, engaging and relaxed, and allowed people to access project information in a number of ways, ie: through formal presentations, one-on-one enquiries with project team members and by viewing the visual materials available around the room.

There were four main ways people could provide their ideas:

1. Public submissions received via floods@bundaberg.qld.gov.au
2. Community questionnaire (hardcopy)
3. Anecdotal feedback at the Information Sessions
4. Community Reference Group as a portal to their communities.

There were a total of **328 ideas and feedback received** via these four main mechanisms. Of the total recorded ideas received, 215 were written submissions and anecdotal feedback, 82 were community questionnaires and 31 were post-it note ideas from the Information Sessions.

The project's Community Reference Group members have also received further ideas, options, and feedback directly from their own community networks. Together, this Report and the CRG's direct interactions will inform the CRG's view of what floodplain resilience options the community would like Council to consider in developing the Burnett River Floodplain Action Plan.

The four key themes that emerged from the community's feedback include ideas about 1) flood prevention modifications to alter the behaviour of the flood itself by reducing flood levels and/or velocities or by excluding flood waters from areas at risk, 2) property modifications to existing buildings to remove them from flooding by undertaking things like re-zoning and house raising, 3) applying

development controls such as reviewing building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts, and 4) flood response modifications to increase the ability of people to respond appropriately in times of flood and/or enhancing the flood warning and evacuation procedures in an area – initiatives could include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans.

The key themes did not deviate from the 'typical' set of floodplain resilience options or ideas that the team were anticipating. It is a strong indication of a close alignment between the technical possibilities, and the communities' aspirations and wishes.

These themes were used to help analyse and identify which type of floodplain resilience options is considered the important or valuable by the Bundaberg community.

Key findings include:

- 71% of questionnaire respondents were flood affected
- 57% were from North Bundaberg
- Almost half of all respondents were flood affected residents of North Bundaberg
- The community rated the flood response initiatives as the most important – early flood warning initiatives, evacuation plans, community awareness initiatives, flood gauge markers are all considered highly important
- Those not impacted by floods placed greater emphasis on the importance of reviewing planning and building codes
- Flood-affected people saw early warnings as more important than flood modifications (noted as 'structural' on the questionnaire)
- Interestingly, those not affected, saw structural projects (flood modifications) as more important than those who were affected.

Based on the analysis of findings from the written submissions, questionnaire, and anecdotal feedback and response at the Information Sessions, the floodplain resilience measures/options which the community would like to see considered for inclusion in the Action Plan, includes:

- i. Early flood warning initiatives such as the incremental flood gauge maps which help explain the relationship between the water level upstream at Paradise Dam, and the corresponding water level downstream in the Bundaberg floodplain, including how long it takes for flood waters to reach Bundaberg. When this project was explained at the Information Sessions, people were very keen to learn more.
- ii. Emergency response initiatives such as evacuation plans and maps, community awareness initiatives to help people get better prepared for how and when to evacuate, a review of how to best provide emergency communication updates to the Bundaberg community, introducing more visual reminders and guides for what areas are most flood prone such as flood gauge markers.
- iii. Flood modification projects which may include levee specifically to protect areas at greatest risk such as North Bundaberg, dredging of relevant areas of the Burnett River, a review of the effectiveness of the Ben Anderson Barrage/other weirs.

Considered less important for inclusion in the Action Plan was:

- iv. A review of building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts
- v. Building modifications to existing properties such as raising and restumping.

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1. Introduction

1.1 Project overview

Bundaberg Regional Council and GHD recently completed a study of the region's flooding behaviour to gain a comprehensive understanding of the cause, effects, severity and frequency of recent and future Burnett River flood events.

The flood study provides vital information to underpin the development of the Burnett River Floodplain Action Plan. This Action Plan is the next step in the process and will use the technical and scientific data to develop a range of floodplain resilience options that aim to reduce the potentially devastating impacts of future flooding in the Bundaberg region.

In parallel with this, from mid-September to early October 2013, Bundaberg Regional Council sought ideas and feedback from the community to better understand what options and strategies they would like Council to consider as part of the project. This public ideas collection is supported by a dedicated, independently facilitated Community Reference Group that will be in place until the Action Plan is adopted by Council. In addition to the public ideas collection, technical input from key stakeholder organisations, known as the Technical Working Group, has been sought at critical points in the process.

The ideas and feedback from the public, Community Reference Group members, and the Technical Working Group representatives has been summarised in this Consultation Report and will be fed into a Multi-Criteria Assessment process at the end of October 2013.

The Multi-Criteria Assessment (MCA) provides a robust and transparent tool to refine floodplain resilience strategies informed by the public consultation by assessing them against a set of agreed weighted criteria.

By the end of the 2013, based on the outcomes of the MCA process, the top five floodplain resilience options will be identified to take forward for funding applications and to undergo additional detailed assessment.

These five options will form part of a range of other initiatives to be developed as part of the Burnett River Floodplain Action Plan due for completion by mid-2014.

This work and the resulting Action Plan gives Council a solid plan to assist in reducing the devastating effects of flooding to the region. The Action Plan will incorporate a range of initiatives relating to:

- Flood response measures, which may include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans
- Flood modification measures, which may include levees, river dredging and vegetation removal and
- Property modification measures which could include re-zoning, house raising etc.

1.2 Purpose of the consultation report

This Consultation Report has five main purposes:

1. Outline the project consultation approach
2. Summarise the lead-up communication and awareness raising activities
3. Detail the consultation activities, including the Information Sessions
4. Detail the findings from collated hardcopy submissions, community questionnaires and verbal feedback collected at Information Sessions (as received by the Bundaberg Regional Council and GHD team members)
5. Provide a set of implications and recommendations to be considered in the development of the floodplain resilience options and to help inform the successful communication and implementation of the Burnett River Floodplain Action Plan.

The report outcomes will:

- Assist the Community Reference Group to develop an informed view of the perceptions, preferences and interests of the community, which in turn, will help inform their independent Floodplain Resilience Options Report
- Assist the Bundaberg Regional Council by providing an independent report on the findings, as well as provision of a set of high-level recommendations for consideration.

These recommendations provide guidance to appropriately conclude the consultation process, and guide the implementation and communication of the Burnett River Floodplain Action Plan into 2014.

2. Consultation approach

Prior to embarking on the consultation for the Burnett River Floodplain Action Plan, the team established a clear goal, set of specific objectives to achieve our goal, and an associated set of strategic approaches and activities.

2.1 Goal, objectives and approach

To ensure a meaningful and successful consultation program, all of our activities were designed to achieve our overarching project goal, which was:

To identify and assess a set of preferred floodplain risk management options that build flood resilience, foster community preparedness, and ultimately save lives.

To drive this goal, the team set out to achieve the following objectives, using the following approaches:

Objective	Approach
Engage highly interested individuals to build confidence in the process and progress	<p>Proactively seek out the ideas and feedback from interest parties, through a coordinated and widely-promoted public consultation phase</p> <p>In the interests of accessibility, provide people with a number of options for how they may wish to provide their ideas</p> <p>Leverage local knowledge and experiences, as well as technical inputs</p> <p>Actively involve those who were directly involved in the January floods and understand their experience</p>
Motivate and inspire wide participation to better understand the community's floodplain resilience preferences and opinions	<p>Undertake a range of activities in the lead-up to the public consultation phase, to:</p> <ul style="list-style-type: none"> • Update the community on the activities underway or completed by Council, since the January floods • Provide the community with details of the outcomes from the Burnett River Flood Study • Provide information on how the Flood Study and Floodplain Action Plan are part of the same journey towards improving flood resilience for the short, medium and long term

Objective	Approach
Build community-wide awareness of the various floodplain resilience options/measures	<p>Provide clear, factual and consistent information that communicates the purpose and benefits of the project across a range of mediums and channels – ie written, verbal, face to face</p> <p>Explain the purpose of the Flood Study and the associated Action Plan, and why the two are linked</p> <p>Provide helpful, simple information on the process of receiving ideas and feedback, and how that will feed into the multi-criteria assessment</p>
Clearly and widely communicate the top five options once confirmed in December 2013	<p>Keep the community regularly updated about the project's progress following the completion of consultation, to ensure the team 'closes the loop' and reports back on the outcomes</p> <p>Ensure those who participated in the consultation receive notification of the top five options that Council are taking forward</p> <p>Widely promote and communicate the top five options, including details of the reasons for making those choices</p> <p>Communicate the next steps to achieve funding support and any further engineering assessments required to progress and confirm the Action Plan</p>

2.2 Communication key messages

It is considered best-practice to develop easily understood and simple project key messages that form the broad themes woven into verbal and written project communication. This is essential to ensure the community receives clear and consistent information.

Given the technical complexity of the flood study process, outputs and multi-criteria assessment tool, it was particularly appropriate to develop pre-approved plain English descriptions of certain aspects of the project, to ensure accessibility and comprehension.

The main key messages (in blue) and supporting facts are as follows:

1. Council's Burnett River Floodplain Action Plan will confirm the top five floodplain management options and strategies to improve flood resilience and preparedness.

Supporting facts:

- The top five floodplain management options will be identified in December and will undergo detailed engineering assessment in the first half of 2014.
- Due for completion by mid-2014, the Action Plan will identify a range of other initiatives and strategies to provide a coordinated mix of measures that aim to address existing and potential future flooding risks.
- This Action Plan is the next step in the process following the completion of a comprehensive flood modelling and mapping study of the Burnett River floodplain located between Paradise Dam and the river mouth.
- The flood study provides vital information to underpin the development of the Burnett River Floodplain Action Plan. It provides a solid and detailed account of what may happen during a flood and provides Council with:
 - Calibrated flood models
 - Flood inundation maps for a range of flood events that indicate the potential flood extents, levels, depths, velocity and flood hazard for the floodplain located between Paradise Dam and the river mouth
 - An improved understanding of the behaviour of flooding across the floodplain
 - An improved understanding of the impact of infrastructure such as dams and hydraulic structures on river flow rates and flood levels
 - An improved understanding of flood warning times.

2. Council is seeking ideas and feedback from members of the community to better understand what options and strategies they would like Council to consider as part of the project.

Supporting facts:

- The process will be informed by consultation with the community and technical representatives to identify and confirm the floodplain management options and strategies.
- We want to better understand what matters to our local residents before, during and after a flood event, and what they experienced during recent flood events to help build upon this knowledge.
- This public ideas collection is also supported by a dedicated, independently facilitated Community Reference Group that will be in place until the Action Plan is adopted by Council.
- The Community Reference Group members will represent a wide cross-section of the community. It will include residents directly impacted by the floods, community services representatives, environmental groups and business/industry leaders.
- In parallel with public ideas collection, technical inputs from key stakeholder organisations will be sought at critical points in the process.
- We will be seeking to gain insight into the individual requirements and concerns of State Government agencies such as the SES, Transport and Main Roads, and Emergency Services.

- Ideas and feedback from the public, Community Reference Group members, and the technical working group representatives will be summarised in a report and will be fed into the Multi-Criteria Assessment process later in the year.
- The Multi-Criteria Assessment will provide a robust and transparent tool to refine resilience strategies informed by the public consultation by assessing them against a set of agreed weighted criteria.
- By the end of the year, once the options have gone through the Multi-Criteria Assessment, Council will have the top five floodplain management options and strategies to take forward.
- Based on the outcomes of the MCA process, five flood risk management options will be identified for funding purposes by December 2013 and undergo additional detailed assessment. These options will form part of a range of other initiatives to be developed as part of the Floodplain Action plan due for completion by mid-2014.
- Due for completion by mid-2014, the Action Plan will identify a range of other initiatives and strategies to provide a coordinated mix of measures that aim to address existing and potential future flooding risks.

3. This work will give Council a solid plan to assist in reducing the devastating effects of flooding to the region.

Supporting facts:

- This whole process has been, and continues to be, about making informed, rational and workable decisions to build flood resilience and preparedness in the community.
- The floodplain resilience options to be assessed relate to:
 - Property Modification Measures which could include re-zoning, house raising
 - Response Modification Measures, which may include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans
 - Flood Modification Measures, which may include levees, river dredging and vegetation removal.

2.3 Project stakeholders

While this is not an exhaustive list, the following stakeholder groups and organisations were considered to be either interested in the consultation or would have a role to play in the development and implementation of the consultation program and subsequent Action Plan:

Directly impacted property owners:

- Resident of all suburbs within the Burnett River catchment, particularly those whom were impacted by the January floods
- Affected /at-risk property and business owners.

Wider Bundaberg / surrounding areas (impacted and not impacted):

- Goodnight Progress Association/Hall
- Goodnight Scrub area
- Back Electra
- South Bingara
- Pine Creek

- Bungadoo.

Project-specific Community Reference Group and Technical Working Group:

- Independent Chairperson and members
- Technical Working Group members including Sunwater, State and Federal Government representatives from SES, Queensland Rail, Department of Transport and Main Roads, Bureau of Meteorology, Flood Recovery groups (infrastructure, human and social and environmental).

Industry associations, community interest groups, environmental associations:

- Canegrowers Association
- Chamber of Commerce
- Port of Bundaberg
- Bundaberg Region Rising
- Flood Mitigation for Bundaberg group
- Bundaberg Fruit and Veg Growers Association
- Burnett Mary Regional Group / Wide Bay Burnett Environment Council.

Elected representatives, Local Councillors and key Council project team members:

- Bundaberg Regional Council Mayor and Local Councillors
- Bundaberg Regional Council officers – planning team, infrastructure and design team, communications team
- Jack Dempsey MP, Member for Bundaberg and Minister for Police and Community Safety.

2.4 Consultation phases

The communication and consultation activity was guided by the overall Burnett River Floodplain Action Plan project phases to ensure alignment.

To help ensure rapid progress ahead the end of 2013, and to help secure State and Federal funding, GHD worked closely with Bundaberg Regional Council to develop an accelerated program of works.

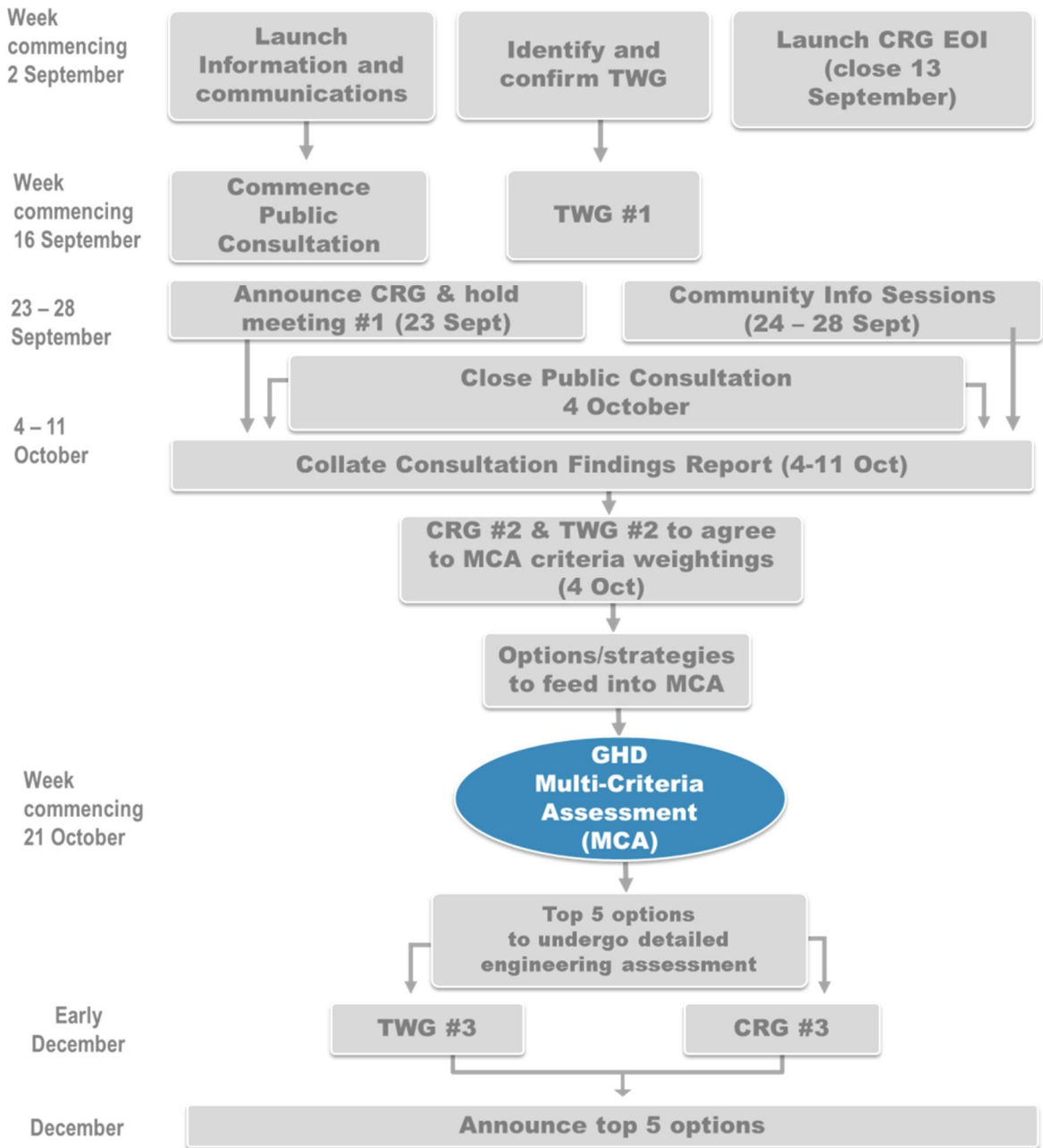
The main overall phases of work for the communication and engagement include:

1. Pre-launch planning and coordination – August 2013
2. Community Education and Awareness Raising: August to mid-September 2013
3. Public consultation phase, including initial engagement with the Community Reference Group and Technical Working Group: early September to early October 2013
4. Collation of community feedback, identification of options and start of multi-criteria assessment work: end October to mid-November 2013
5. Ongoing engagement and consultation with the Community Reference Group and Technical Working Group: November to December 2013
6. Identification of top five options: December 2013

Critical phases of work occurred throughout September and October. Figure 1 below illustrates the order of activity from the launching the CRG expressions of interest, through to confirming

the CRG members, launching the public ideas collection, running the Information Sessions, and then concluding the consultation in mid October 2013.

Figure 1 - Consultation Timeline



3. Consultation Methodology

3.1 Lead-up awareness raising activities

To encourage community-wide interest and participation, the team undertook a range of activities in the lead-up to the public consultation phase, to:

- Update the community on the activities underway or completed by Council, since the January floods
- Provide the community with details of the outcomes from the Burnett River Flood Study
- Provide information on how the Flood Study and Floodplain Action Plan are part of the same journey towards improving flood resilience for the short, medium and long term.

Activities included:

- Media relations leading to interviews on ABC Wide Bay, 4BU and Seven and editorial coverage in the Bundaberg NewsMail newspaper
- Updates on the Council website in prominent locations
- Council staff communication to encourage them to update their own networks
- Re-establishment of the dedicated email: floods@bundaberg.qld.gov.au
- Stakeholder briefings and presentations
- Advertisements in three local papers to promote Council’s call for Expressions of Interest for Community Reference Group members
- Attendance and speaking role at a community-led event at the TAFE on 22 August 2013
- Facebook posts and Tweets reaching 4,000+ people.

3.2 Communication materials and channels

A range of project communication materials were developed for the consultation including:

Item	Distribution channel
Three Factsheets – an overall Project Factsheet, a Community Consultation Factsheet, and a Multi-Criteria Assessment Factsheet	<ul style="list-style-type: none"> Hard copies at Information Sessions Downloads from Bundaberg Regional Council website Links from Facebook Attached to stakeholder emails
Project Frequently Asked Questions	<ul style="list-style-type: none"> Hard copies at Information Sessions Downloads from Bundaberg Regional Council website Links from Facebook Attached to stakeholder emails
Flood Study and Action Plan Project powerpoint presentation	<ul style="list-style-type: none"> Displayed at Information Sessions Available electronically upon request

Item	Distribution channel
Large AO maps – historical, 2013 flood event inundations maps, evacuation route maps	Displayed at Information Sessions Available electronically upon request
Community Questionnaire Feedback Form	Displayed at Information Sessions Available electronically upon request
Press advertisements	Newspaper
Media Releases	Media outlets
Council employee updates	Council group emails
Stakeholder email updates	E-update to over 10,000+ individuals and organisations to encourage participation
Information Session promotion poster	Displayed at various locations across the region
YouTube video and 2013 Flood event animation	YouTube at http://www.youtube.com/watch?v=eYyDIG84V70
CRG agendas, minutes and Terms of Reference	Via email to CRG members and available on the Council website
2013 Flood Calibration Map - Paradise Dam to Bundaberg Port 2013 Peak Flood Map BOM Warning Classifications - Bundaberg Gauge Burnett River Catchment Map Bundaberg High Resolution Aerial Imagery 2010 Bundaberg Aerial Imagery 1948 Burnett River Survey 1869 Estimated Changes to the Flood Plain 1937-2011 Proposed Flood Levee Locations - Batchlers Road and Technology Park Locality Map of Paradise Dam to Bundaberg City Bundaberg District 1883 Burnett River Floodplain - Bundaberg Ground Elevations	Displayed at Information Sessions Available for download at: http://bundaberg.qld.gov.au/burnett-river-action-plan

3.3 Media relations activities (traditional and social)

3.3.1 Media releases and media statements

To raise community-wide awareness of the consultation and other related initiatives the team worked together to draft and distribute a range of media releases which resulted in newspaper, television and radio coverage. These include:

- Confirmation of GHD's appointment to deliver the Floodplain Action Plan
- Announcement of details of the public consultation, and upcoming Information Sessions
- Confirmation of Council's appreciation of ongoing funding support following an announcement of funding by Minister Community Recovery and Resilience Minister David Crisafulli
- Call for Expressions of Interest for the CRG
- Announcement of Mr Rowan Bond as the independent CRG Chairperson
- Announcement of Information Session dates and locations
- Post-Information Session Community Update
- Ongoing updates provided to the media via the CRG Chairman, Rowan Bond.

3.3.2 Media coverage to promote the Information Sessions

The majority of the media coverage was received in the lead up to the Information Sessions in the week commencing 16 September. This was designed to raise maximum awareness of the purpose and format of the Information Sessions to encourage maximum interest and attendance.

The NewsMail coverage was negative and took a highly sensationalist slant. To counter this, the team successfully balanced the media coverage by focussing on engaging with TV and local radio which resulted in some very positive and balanced coverage of the project.

BRC's Dwayne Honor, Cr David Batt and Mathew Dyer participated in a 50-minute live interview on ABC Wide Bay which was an excellent (and cost-free) way to provide the community with a detailed update on the priority projects underway to build floodplain resilience.

TV Reports:

- WIN Local News TV coverage on Wednesday September 18
- 7 Local News TV coverage on Wednesday September 18.

Radio coverage:

- 50 minute live interview on ABC Wide Bay with Manager Design Dwayne Honor, Cr David Batt and Disaster Management officer Mathew Dyer on Wednesday September 18.
- 5 minute live interview on 4BU on Wednesday September 18.

NewsMail published these stories about the CRG/Floodplain Action Plan in the last two months:

NewsMail: Chris Hardy steps down from group due to media gag

26th Sep 2013 6:00 AM



ACTION PLAN: Chris Hardy forms a new flood action group and former head of the Queensland Murray Darling Basin Natural Resource Management Association Malcolm Topp joins. Photo: Max Fleet / NewsMail

Max Fleet

FLOOD mitigation speaker Chris Hardy has stepped down from the Bundaberg Regional Council-formed Community Reference Group (CRG) just one day after being appointed.

She resigned after discovering protocols were in place that effectively "gagged" her in relation to talking to media.

[>> Read the entire 15-page document here](#)

Ms Hardy has been a vocal advocate of dredging the river and has collected more than 6000 signatures from the Bundaberg community supporting the need for "urgent" work on the Burnett River.

It was a requirement on the council by Community Safety Minister Jack Dempsey that Chris Hardy and retired fisherman John Olsen sit on the CRG.

The State Government has funded the council studies into the flood mitigation options and has set a deadline of December 31 for all options to be laid on the table.

But yesterday morning, Ms Hardy resigned.

She said she was appalled to discover media protocols preventing her or any "unapproved" group member talking to news media.

Ms Hardy described the group as a "cult" and said group chair Rowan Bond was the only person allowed to talk to the media.

"Anything to do with the meetings, I was not allowed to go to the media about," Ms Hardy said.

"Personally I feel I can do a lot better doing what I was doing before."

Bundaberg Mayor Mal Forman said Ms Hardy's resignation was "very unfortunate".

And despite the group's members being voted into the group exclusively by the council and Cr Forman being a spokesman for the CRG, he said the body was "completely independent from council".

"All further media inquiries about the Community Reference Group should be directed to CRG chairman Rowan Bond," Cr Forman said.

But the Burnett River Floodplain Action Plan document, issued at the first CRG meeting states the "mayor should officially speak on behalf of the council about most aspects of the project".

In her resignation yesterday, Ms Hardy wrote: "I will not be part of this charade".

Topics: [chris hardy](#), [floods 2013](#)

NewsMail
CONNECTING OUR COMMUNITY

NewsMail: Two levees and backfill in the pipeline

30th Aug 2013 1:12 PM

FLOOD funding of \$2.4million will be used to build two levees and backfill the badly eroded section of the Burnett River below Midtown Marina in the first direct mitigation cash announced for Bundaberg.

But pro-mitigation crusader Chris Hardy has labelled it "a bandaid on an amputation", saying far more needs to be done to restore the confidence of flood-affected residents still living in fear.

Visiting Bundaberg yesterday Community Recovery and Resilience Minister David Crisafulli said the funding would go towards two levees, one next to Technology Park, off Cummins Rd, and the other between Batchlers and Mt Perry Rds.

He said there would also be major stabilisation work to protect the CBD.

"We all recognise that you can't stop floods, but we can do a better job at avoiding some of the damage," he said.

The North Bundaberg levee next to Technology Park would be designed to prevent breakout flooding from the Burnett River and the second, further to the north, fight backwater inundation.

The second project would see \$1.5 million spent on vital work to protect the CBD by stabilising a badly eroded section of the Burnett River, which became a sinkhole after the flood. The plan is to build a wall and backfill to reclaim the riverbank. The council will also get \$82,405 for flood studies of the Lower Burnett River and lower Kolan River and Gin Gin Creek catchments.

Member for Bundaberg Jack Dempsey said the projects would help with flood protection.

"We can't flood-proof Bundaberg but we want to take a long-term approach to making it less vulnerable," he said.

Bundaberg Mayor Mal Forman said the levees would give residents in parts of North Bundaberg more time to leave their properties and an improved evacuation route in a flood.

But Ms Hardy said while she welcomed the news that finally things were moving forward, she said many residents felt dredging was the main mitigation measure which needed to happen.

"It's better than nothing but we are sitting on a blocked drain here," she said.

"The river is chocked up and for a lot of people a levee is a start but it's not enough."

Topics: david crisafulli, floods 2013

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NewsMail
CONNECTING OUR COMMUNITY

NewsMail: Radio systems to be installed in remote Bundaberg areas

30th Aug 2013 8:22 AM

UPGRADED warning systems, especially in more remote locations across the Bundaberg region, are part of a rollout of measures being undertaken in preparation for future flood threats, according to Bundaberg Regional Council.

Bundaberg Mayor Mal Forman said one of the major issues raised by people in the more remote areas of the region during the January flood event was the lack of appropriate communications - especially when areas became isolated.

"We have taken on board these concerns and now have radio systems that will be installed in places like Goodnight Scrub, Winfield, Bucca, Buxton and Monduran," he said.

Cr Forman said the radios were currently being programmed to use existing council infrastructure to maximise their range.

He said the council and the Bureau of Meteorology were partnering in the installation of additional and enhanced river and rain gauges plus a number of automatic rain gauges that will be located deeper into the Burnett River catchment area.

"These additional gauges and upgrades will provide earlier and more reliable information that will be fed back to BOM and on to the community," Cr Forman said.

He said the use of mobile phone technology would be utilised in enabling messages to be pushed out to remote areas.

"We are working with the State Disaster Coordination Centre to have pre-prepared messages available for specific locations to warn of impending emergencies," he said.

Cr Forman said Bundaberg Regional Council was engaged in reviewing its own Local Disaster Management Plan and incorporating changes that would improve operational efficiencies.

STORY TOOLS



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“

One message I would really impress upon our community is for residents to accept a level of responsibility for their own safety and preparedness in the event of future emergencies.

"We have learned much over the past two flood emergencies and I believe Bundaberg is widely regarded for its response plan especially during the last emergency," Cr Forman said.

"We are conducting discussions with community and government agencies to ensure we can access their resources. This includes local schools that may be required as temporary evacuation centres.

"One message I would really impress upon our community is for residents to accept a level of responsibility for their own safety and preparedness in the event of future emergencies."

He said when threats were imminent people needed to stay tuned to their radios and to heed the warnings issued.

"Remember that BOM is the single point of truth for weather and warnings. Local ABC radio and commercial networks are also committed to distributing factual and up to date information during disasters. Representatives of these organisations are members of the Bundaberg Local Disaster Management Group."

Cr Forman said the council remained committed to ensuring the safety of people and their property within the capabilities of their resources.

He said discussions were ongoing with state and federal governments in an effort to source funding for a community evacuation centre to be constructed as a part of a multiplex facility at the old showgrounds.

"Council has recently appointed consultants GHD Engineering to undertake formalisation of a Floodplain Management Action Plan. This includes the appointment of a Community Reference Group which will provide valuable input into the planning process."

Topics: [bundaberg regional council](#), [floods 2013](#)

NewsMail
CONNECTING OUR COMMUNITY

NewsMail: Emotions run high at community flood forum

26th Aug 2013 5:00 AM



FLOOD MEETING: A large crowd turned up the flood forum held in the auditorium at the Bundaberg Wide Bay TAFE. Photo: Zach Hogg / NewsMail

WHILE emotions ran high, and the pain felt following the aftermath of the extreme weather events this year was still noticeably raw, attendees of the community flood forum walked away with a renewed sense of hope.

After three solid hours hearing from council engineers, Mayor Mal Forman, the Bundaberg and Burnett MPs and victims themselves, the forum on Friday night concluded with the establishment of four key outcomes.

The crowd voted in favour of the need for early warning systems, river dredging and for the full report into the integrity of Paradise Dam be released to the public.

It also voted to have Bundaberg Regional Council explore the concept of bypass channels - part of Fairymead project developer Geoff Burchill's forum overview - as part of the flood mitigation study, with the proviso that a report on it also includes the issue of potential backwash.

A fifth outcome was also formally endorsed by the public - that forum organiser Chris Hardy, and Bundaberg region fishing identity, John Olsen, form part of the council's Community Reference Group to help guide the development of its floodplain risk management plan, known as the Burnett River Floodplain Action Plan.

The issue of the integrity of Paradise Dam was raised several times on the evening, with some people claiming it was not structurally sound.

But Member for Burnett Stephen Bennett assured the crowd there was nothing wrong with the dam, and the government had already spent \$25 million in dam repairs.

Earlier on in the evening, Mayor Mal Forman again declined to answer the 14 questions posed by Mrs Hardy that were published in the NewsMail but, after a bit of pressure from the audience, he offered up some responses as each question was read out aloud by the forum facilitator.

Council engineer Andrew Fulton was able to shed some light on question 10, surrounding the council supporting another public community meeting to discuss flood mitigation and recovery.

Mr Fulton revealed there would be consultation forums held in the main areas that had been flooded and vowed to consider holding them in areas such as Branyan and Sharon, which two audience members said had been "forgotten".

Cr Forman repeatedly told the audience that all options put forward on the night would be considered.

He stressed that ideas put on the table that evening were what the community reference group was calling for and those with ideas were urged to email them to floods@bundaberg.gov.au.

Topics: floods 2013

NewsMail
CONNECTING OUR COMMUNITY

NewsMail: Independent group to help guide Floodplain Action Plan

22nd Aug 2013 2:04 PM



Bundaberg Mayor Mal Forman announced more details on the Burnett River Floodplain Action Plan

Mike Knott

Council today announced the establishment of a dedicated independently-facilitated Community Reference Group to help guide the development of its floodplain risk management plan, known as the Burnett River Floodplain Action Plan.

The Floodplain Action Plan will rigorously assess and identify a set of preferred floodplain risk management options that will improve flood resilience for ratepayers across the Burnett River floodplain.

The announcement follows the completion of a comprehensive flood modeling and mapping study of the Burnett River floodplain located between Paradise Dam and the river mouth. The flood study provides vital information to underpin the development of the Floodplain Action Plan.

Mayor Mal Forman said council now had a solid and detailed account of what happened during a flood, and could move forward with identifying and assessing the best floodplain risk management options for the Burnett River floodplain.

"This whole process has been, and continues to be, about making informed, rational and workable decisions to build flood resilience and preparedness in the community," he said.

"We've never lost sight of the fact that this is about the preservation of life.

"We have to base our decisions on science to avoid making any irrational and ill-informed decisions.

Cr Forman said he also understood the importance and urgency around implementing a range of financially-responsible initiatives, that would help the whole community feel prepared, should there be another significant flood event.

Topics: [burnett river](#), [burnett river floodplain action plan](#), [mal forman](#)

NewsMail
CONNECTING OUR COMMUNITY

NewsMail: Let's talk mitigation

15th Aug 2013 1:55 PM



FOOD mitigation options including property modifications, development control, and response measures are all on the table following Bundaberg Regional Council's decision to engage an engineering firm to undertake a major study.

Alistair Brightman

FOOD mitigation options including property modifications, development control, and response measures are all on the table following Bundaberg Regional Council's decision to engage an engineering firm to undertake a major study.

Seeking out public opinion will form an important part of the \$232,710 study to examine a range of flood mitigation options for the region.

The study will be undertaken by GHD, with a detailed assessment of preferred options expected to be completed by the end of the year and a Floodplain Risk Management Study Report and Floodplain Risk Management Plan due by May 31, 2014.

Bundaberg Mayor Mal Forman said engaging the consultants was the next step forward in the structured approach the council had taken to evaluating flood information in preparation for community consultation.

"GHD will have a brief that will involve significant engagement with the community," he said.

"Our investigations are now at a stage where we need to formally invite community input and I can assure all interested persons that there will be an opportunity for them to be heard and to put their ideas forward."

As part of the community consultation process, Cr Forman confirmed council representatives would present to the public at the Bundaberg Flood Mitigation community forum on Friday August 23.

A council spokesman also confirmed during the ideas collection stage it was expected that communication channels would include an 1800 number, FAQs, website online feedback, face-to-face and written submissions.

"As the study progresses a key component will be establishment of two reference groups: one comprising of government agencies and flood experts, the second comprising affected community members," he said.

"The community reference group will be selected from those who wish to be involved and willing to commit to the significant amount of work involved in being part of that group."

Bundaberg Flood Mitigation committee representative Chris Hardy said she was pleased the council had decided to accept the invitation to present to next Friday's community forum.

"There are still a lot of people hurting; they are scared and they need the council to answer their concerns," she said.

Member for Burnett Stephen Bennett congratulated the council for making the decision to engage in community consultations and use an outside organisation to independently assess the mitigation options.

"It's important to have engineers assess the desired outcomes based on science," he said.

Community Recovery and Resilience Minister David Crisafulli said the State Government had committed funding to help the council find the best mitigation measures but stressed the importance of acting quickly.

"It's important to make the most of the timing when an unfortunate event occurs and not to spend years and years studying by getting the information quickly and then beginning to work," he said.

Flood forum

When: Friday, August 23, 6.30pm

Where: TAFE Auditorium, Walker St

Who: All community members are invited to attend

3.3.3 Social media activities

Council's Communications team has a well-established set of social media channels that provides its residents with additional ways to seek and find information.

This provided the GHD team with an excellent additional communication/information distribution tool to update the community on progress and to promote the Information Sessions.

A number of Facebook posts and Tweets were distributed throughout the lead-up phases and during the public consultation phase to provide live updates of the project status. BRC's Facebook page currently has over 4,000 followers.

Facebook



We're holding several community info sessions about the Burnett River Floodplain Action Plan, starting next Tuesday, September 24. The info sessions are an opportunity to interact with Council's Floodplain Action Plan team, and will help Council to better understand what options and strategies the community would like Council to consider as part of the development of the Action Plan. You can also submit any ideas for improving flood resilience to floods@bundaberg.qld.gov.au. More information about the sessions can be found here: <http://bundaberg.qld.gov.au/burnett-river-action-plan> #Bundaberg #thisisBundaberg #Floods #BundabergRegionalCouncil

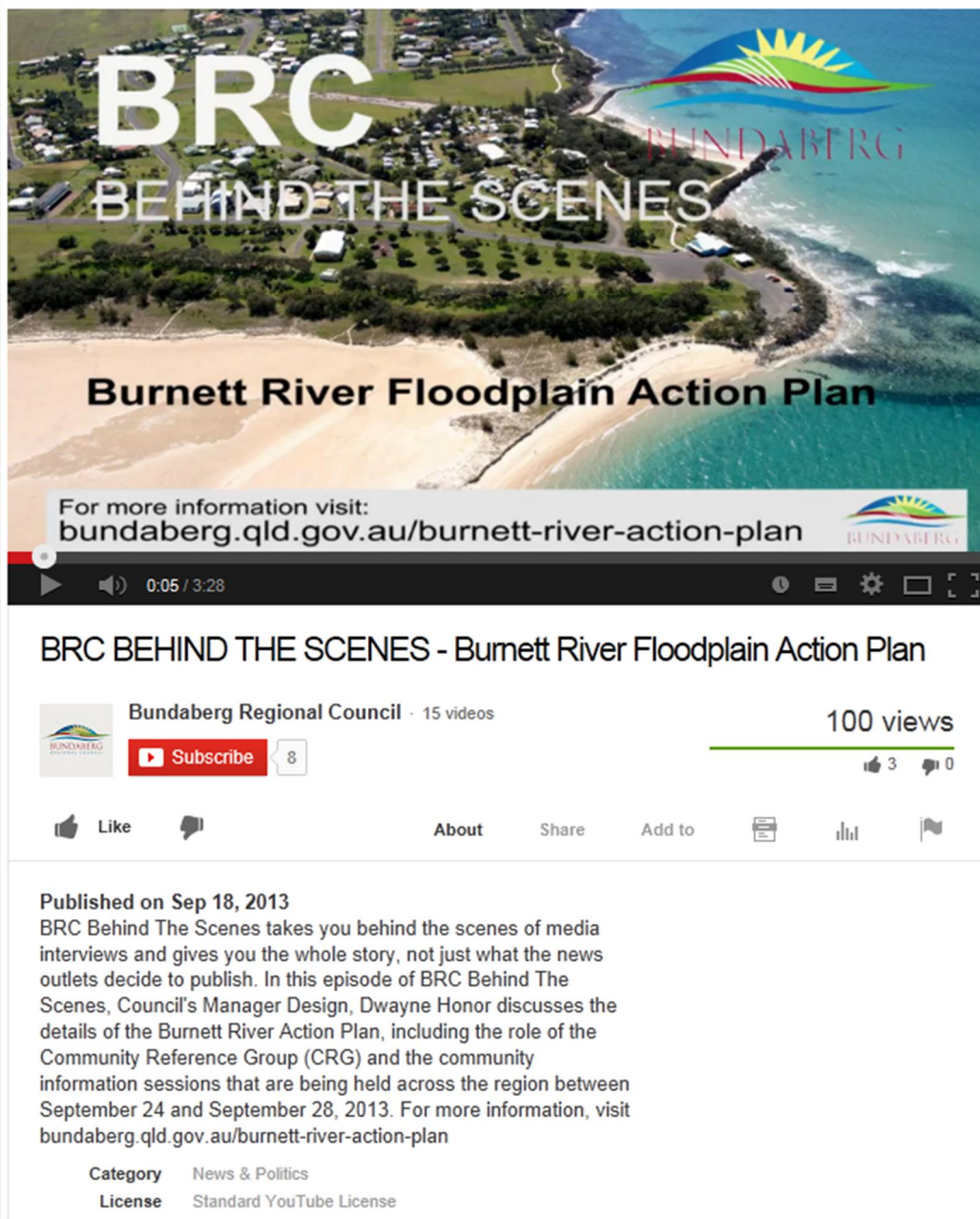
Community Information Sessions are to be held in the following locations:

Location	Date	Time
North Bundaberg Progress Hall - Gavegan Street North Bundaberg	Tuesday 24 September	3:00pm to 4:30pm
		5:00pm to 6:30pm
		7:00pm to 8:30pm
North Bundaberg Progress Hall	Wednesday 25 September	7:00am to 9:00am
East State School Hall - 33 Scotland Street Bundaberg East	Wednesday 25 September	5:00pm to 6:30pm
		7:00pm to 8:30pm
St George Hall South Kolan - 2295 Gin Gin Road South Kolan	Thursday 26 September	5:00pm to 7:00pm
Wallaville Hall - 2 Walla Street Wallaville	Friday 27 September	5:00pm to 7:00pm
Avoca State School Hall (at rear of school) - 1 Twyford Street Avoca	Saturday 28 September	9:00am to 11:00am



The first of our Burnett River Floodplain Action Plan info sessions has just finished. The 90 minute session at Bundaberg Progress Association Hall attracted approximately 60 locals who had a chance to chat with representatives from Council... See More — with Brooke Maki.





The image shows a YouTube video player interface. The video thumbnail features an aerial view of a coastal town with a beach and the Bundaberg logo. The title 'BRC BEHIND THE SCENES' is overlaid in large white letters, and 'Burnett River Floodplain Action Plan' is written below it. A text box in the thumbnail provides a URL: 'For more information visit: bundaberg.qld.gov.au/burnett-river-action-plan'. The video player shows a progress bar at 0:05 / 3:28. Below the player, the video title is 'BRC BEHIND THE SCENES - Burnett River Floodplain Action Plan'. The channel is 'Bundaberg Regional Council' with 15 videos and 100 views. There are 3 likes and 0 dislikes. The video was published on Sep 18, 2013. The description states: 'BRC Behind The Scenes takes you behind the scenes of media interviews and gives you the whole story, not just what the news outlets decide to publish. In this episode of BRC Behind The Scenes, Council's Manager Design, Dwayne Honor discusses the details of the Burnett River Action Plan, including the role of the Community Reference Group (CRG) and the community information sessions that are being held across the region between September 24 and September 28, 2013. For more information, visit bundaberg.qld.gov.au/burnett-river-action-plan'. The category is 'News & Politics' and the license is 'Standard YouTube License'.

BRC
BEHIND THE SCENES

Bundaberg

Burnett River Floodplain Action Plan

For more information visit:
bundaberg.qld.gov.au/burnett-river-action-plan

0:05 / 3:28

BRC BEHIND THE SCENES - Burnett River Floodplain Action Plan

Bundaberg Regional Council · 15 videos

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Published on Sep 18, 2013

BRC Behind The Scenes takes you behind the scenes of media interviews and gives you the whole story, not just what the news outlets decide to publish. In this episode of BRC Behind The Scenes, Council's Manager Design, Dwayne Honor discusses the details of the Burnett River Action Plan, including the role of the Community Reference Group (CRG) and the community information sessions that are being held across the region between September 24 and September 28, 2013. For more information, visit bundaberg.qld.gov.au/burnett-river-action-plan

Category News & Politics

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Twitter

 **Bundaberg Rgnl Cncl** @bundabergrc 25 Sep
We're holding another Floodplain Action Plan info session at St George Hall South Kolan, 5pm-7pm tonight. Details: goo.gl/bkFgrO
Expand

 **Bundaberg Rgnl Cncl** @bundabergrc 20h
Our community information sessions are providing a positive environment to put forward your #flood mitigation ideas: goo.gl/MZwwOv.
Expand

 **Bundaberg Rgnl Cncl** @bundabergrc 25 Sep
Get the full story about Christine Hardy's resignation. Details here: goo.gl/c5aV3w
Expand [Reply](#) [Delete](#) [Favorite](#) [More](#)

 **Bundaberg Rgnl Cncl** @bundabergrc 24 Sep
Two community information sessions will be held at 5pm and 7pm at East State School. Details: goo.gl/a4WLre
Expand

 **Bundaberg Rgnl Cncl** @bundabergrc 23 Sep
Another Floodplain info session about to start at North Bundaberg Progress Association Hall! goo.gl/F2pUhJ
pic.twitter.com/slZzqWk2HT
[View photo](#)

 **Bundaberg Rgnl Cncl** @bundabergrc 23 Sep
Our 1st Floodplain Action Plan community info session is underway at Nth Bundaberg Progress Association Hall. Next sessions start 5pm & 7pm.
Expand

3.4 Community Information Sessions

3.4.1 Event details

There were over 280 people who participated at 10 Community Information Sessions at six locations, as outlined in Table 1.

The atmosphere was open, informative, engaging and relaxed, and allowed people to access project information in a number of ways, i.e: through formal presentations, one-on-one enquiries with project team members and by viewing the visual materials available around the room.

The purpose of the Community Information Sessions where to:

- Inform the community about the Flood Study Report outcomes
- Provide further information about how the work undertaken to date builds a strong platform for the development of the Burnett River Floodplain Action Plan work
- Encourage community participation in the ideas collection via questionnaire, and through their CRG members.

Table 1 - Community Information Sessions

Location	Sessions dates	Attendees
North Bundaberg Progress Hall	Tuesday, 24 September x 3	120
	Wednesday, 25 September x 1	55
East State School Hall	Wednesday, 25 September x 2	60
St George Hall, near South Kolan School	Thursday, 26 September x 1	20
Wallaville Hall	Friday, 27 September x 1	10
Avoca State School Hall	Saturday, 28 September x 1	10
Goodnight Scrub	Wednesday, 2 October x 1	6
	Total	280+

Table 2 - Sample Order of Proceedings

Time	Activity
3:00pm - 3:10pm	<p>Welcome by BRC:</p> <p>Introduce project team to outline the outcomes of the Burnett River Flood Study and introduce relevant people around the room:</p> <ul style="list-style-type: none"> - CRG Chairperson - CRG members - BRC project team members - Mayor and Councillors - GHD team members

Time	Activity
	<ul style="list-style-type: none"> - Counsellors in the room - Explain the displays around the room.
3:10pm - 4:00pm	GHD and BRC to jointly present: <ul style="list-style-type: none"> - An overview of the outcomes of 2013 flood study - Overview of action plan process - Info on how to get involved.
4:00pm-5:00pm	Project team to field questions, help attendees by explaining the maps that relate to their area, encourage people to fill out the Community Questionnaire and place it in the box.

3.5 Community Reference Group

On 22 August, Mayor Mal Forman announced a public call for interested parties to participate in a voluntary and independent Community Reference Group to help guide the development of the Burnett River Floodplain Action Plan. Almost 40 applicants expressed an interest in joining the CRG.

The CRG provides a pivotal liaison point between Council and community members. They have played a key role to help gather the collective thoughts and ideas from their respective community networks to better understand what options and strategies communities would like Council to consider as part of the Action Plan.

Membership comprises a cross section of people including flood affected residents from all areas of the region, flood impacted business owners, professionally related representatives and members nominated from recent flood forums.

The CRG has been chaired by Mr Rowan Bond who has helped to successfully conduct and manage meeting proceedings with the objective of ensuring the meetings are run fairly and without bias.

In summary, the voluntary roles of the CRG are to:

- Provide input into the development of the Burnett River Floodplain Action Plan
- Gather the collective thoughts and ideas from their respective networks to help to identify and assess a range of suitable Burnett River floodplain management options
- Communicate information and update their respective networks to ensure they are kept informed of the project's progress
- Act as a conduit for community feedback on the plan's development to GHD and Bundaberg Regional Council
- Participate in the project's public consultation program to help encourage the gathering of ideas and feedback from the community, in order to confirm a filtered set of options to test during a Multi-Criteria Assessment (MCA)
- Collectively agree to the floodplain management options assessment criteria and weighting used during the Multi-Criteria Assessment (MCA). The MCA will be the primary tool used to confirm the top options to undergo detailed assessment if required
- Represent the community by submitting a report to Council in early December 2013 detailing the CRG's preferred list of floodplain management options. This will be facilitated by the chairperson and require 70% consensus of the CRG members.

GHD's observation of this group is that it is functioning very well under the guidance of Rowan Bond, and maintains the appropriate level of independence, while also being supported by

Council and GHD when assistance, clarifications or information is requested. The meeting agenda and minutes are publicly available on the BRC website.

4. Findings and outcomes

4.1 Feedback and ideas received

The team offered four main ways for people to get involved:

- Public submissions received via floods@bundaberg.qld.gov.au
- Community questionnaire (hardcopy)
- Anecdotal feedback at the Information Sessions
- Community Reference Group as a portal to their communities.

There were a total of **328 ideas and feedback received** via these four main mechanisms. This information has been collated by GHD and has been included in the findings analysis and considered in the development of the recommendations in this Consultation Report.

Appropriately, it is acknowledged that the project's Community Reference Group members have also received further ideas, options, and feedback directly from their own community networks. Together, this report and the CRG's direct interactions will inform the CRG's view of what floodplain resilience options the community would like Council to consider in developing the Burnett River Floodplain Action Plan.

Of the total recorded ideas received, 215 were written submissions and anecdotal feedback, 82 were community questionnaires and 31 were post-it note ideas from the Information Sessions.

For the purposes of feedback analysis, GHD organised and grouped the findings into:

- a. Ideas collected by Bundaberg Regional Council – through the written submissions prior to the start of the formal consultation period, written submissions during the formal consultation period, and anecdotal feedback received by the project team from members of the community at the consultation Information Sessions.
- b. Findings from the Community questionnaire (including people's ranking of the potential floodplain resilience options according to their perceived level of importance and ideas written in the comments section of the form).

Table 3 below provides a summary of the number of ideas and feedback received according to each collection method.

Table 3 - Feedback Received

Method	Responses
Public submissions received from January to August (prior to formal consultation period)	44
Public ideas received during formal consultation period, including via the CRG Members (Sept-October)	114
Anecdotal feedback received at the Information Sessions (received by both BRC and GHD team members)	57
SUBTOTAL	215
Questionnaire and post-its note ideas (from Information Session whiteboard)	82
	31
TOTAL	328

4.2 Key themes

Based on a review of all the written submission content, questionnaire comments, anecdotal feedback and the post-it notes, four major themes/categories emerged, as follows:

Theme/category	Types of measures, ideas , options
1. Flood prevention modifications	<p>Designing measures to alter the behaviour of the flood itself by reducing flood levels and/or velocities or by excluding flood waters from areas at risk</p> <p>Options may include, but is not limited to, levees, river dredging and vegetation removal</p>
2. Property modifications	<p>Modifications to existing buildings to remove them from flooding</p> <p>Options may include re-zoning and house raising</p>
3. Development controls	<p>Reviewing building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts</p>
4. Response modifications	<p>Increasing the ability of people to respond appropriately in times of flood and/or enhancing the flood warning and evacuation procedures in an area</p> <p>Options may include, but is not limited to, improving community awareness, improving flood warning systems, and updating local flood and evacuation plans</p>

The themes that emerged did not deviate from the typical set of floodplain resilience options or ideas that the team were anticipating. It is a strong indication of a close alignment between the technical possibilities, and the communities' aspirations and wishes.

These themes have been applied to the rest of this report to analyse and identify the type of floodplain resilience options considered important or valuable by the Bundaberg community.

4.3 Findings relating to written public submissions (before and during formal consultation period) and anecdotal feedback

4.3.1 Data collection results

The table below provides a breakdown of the number of ideas and feedback received under each of the major themes, according to how they were received. For example, 34 early submissions related to flood modifications such as levees and other structural projects.

	Property Modifications	Development Controls	Response Modifications	Flood Modifications
Written submissions received prior to formal consultation	2	5	3	34
Written submissions received during formal consultation	1	3	51	59
Anecdotal (verbal) feedback received at Information Sessions	10	4	33	10
Total	13	12	87	103

4.3.2 Key findings

Figure 2 illustrates that:

- Almost half (48%) the ideas received were about flood modifications (changing the behaviour of the water through structural projects such as levees)
- Followed by 40% of ideas about responding during a flood event.

Figure 2 - Theme Ideas

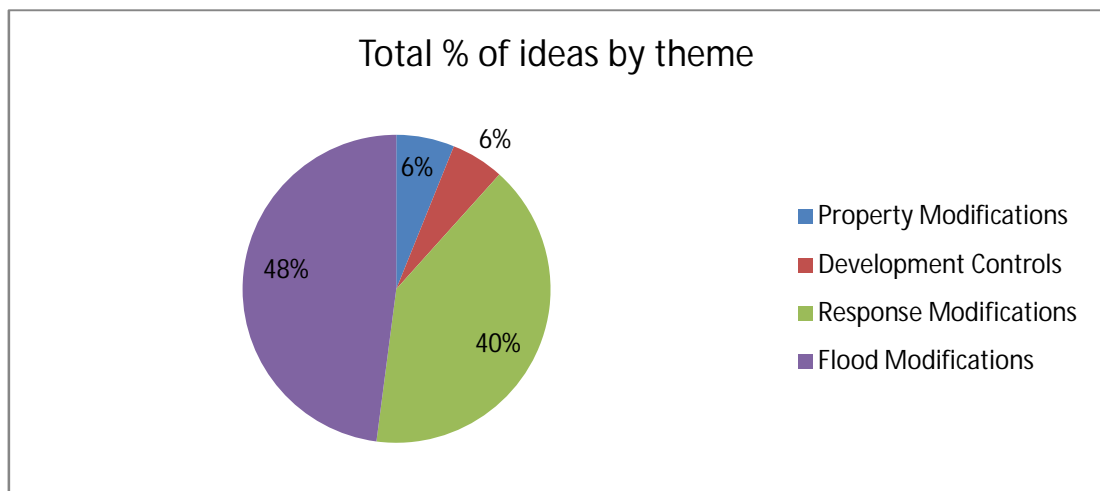


Figure 3 illustrates that the written submissions received from January 2013 to just prior to the start of the formal consultation period in September contained:

- A large proportion (77%) of ideas about flood modifications (changing the behaviour of the water through structural projects such as levees). This is a natural reaction immediately after a major flood event.
- Then followed by 11% about development controls (building and planning codes) which also is indicative of the priorities of the community while it was in recovery and clean-up mode.

Figure 3 - Early Written Submissions

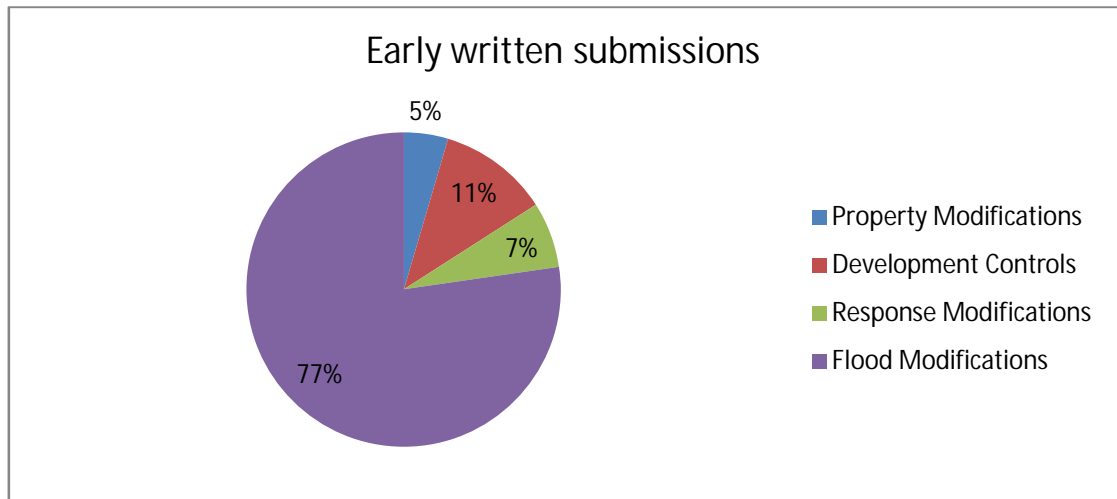


Figure 4 illustrates that the written submissions received in September 2013 during the formal consultation period contained:

- Just over half (52%) of the consultation participants provided ideas about flood modifications (structural projects such as levees, dredging etc) closely followed by response modifications (45%)
- A smaller number of ideas came in about development controls and property modifications during the consultation.

Figure 4 - Submissions Received During Consultation (September 2013)

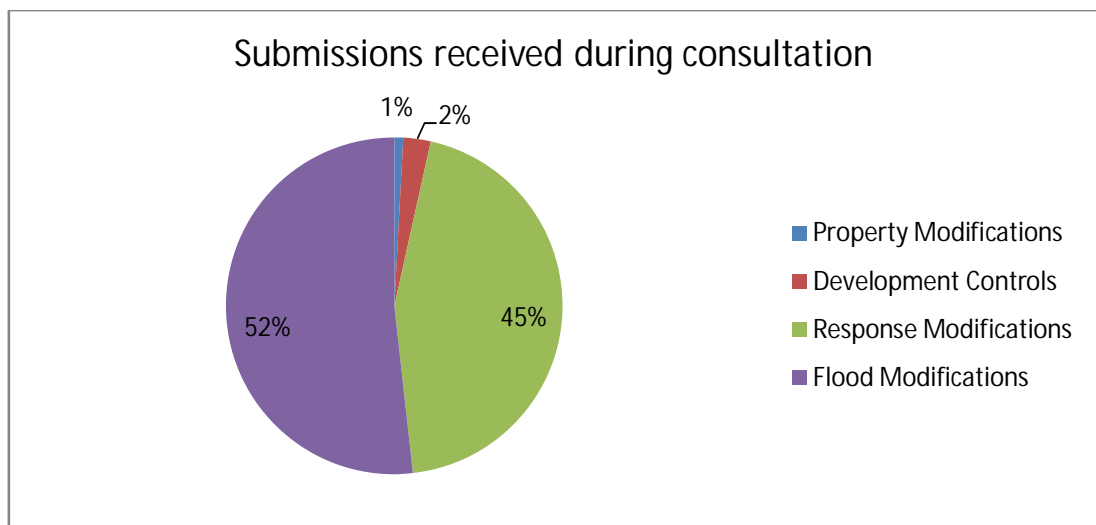
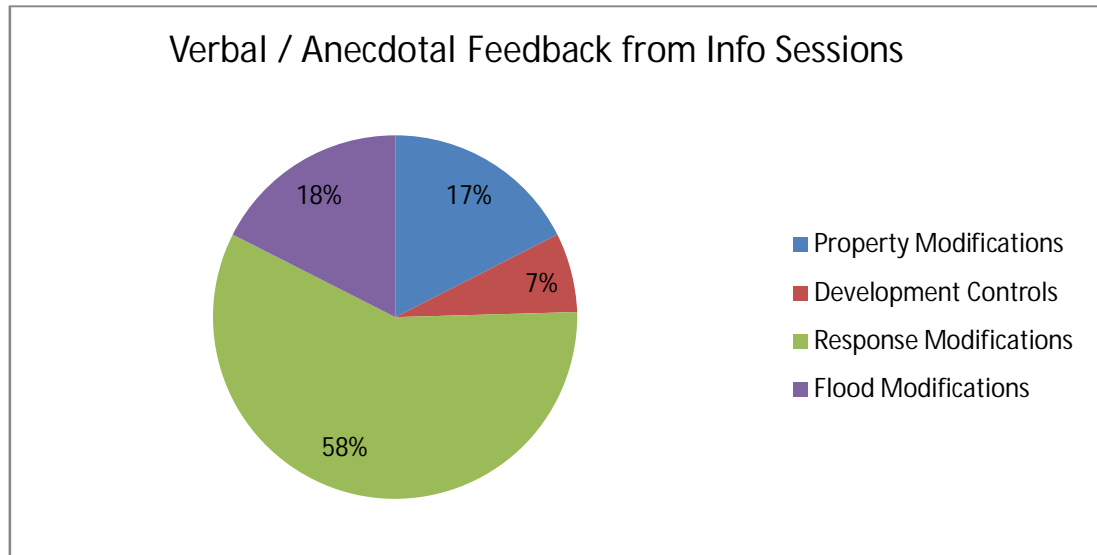


Figure 5 illustrates that the verbal anecdotal feedback received by the team at Information Sessions contained:

- More than half of the ideas were about responding during a flood event (58%)
- A smaller number of ideas about flood modifications (18% only)
- Interestingly, people also wanted to discuss property modifications (17%), when previously it was not raised as much in written submissions.

Figure 5 - Verbal/Anecdotal Feedback



4.4 Findings relating to community questionnaire and post-it note ideas

4.4.1 Questionnaire design

The questionnaire concept was adopted to help the community quickly and easily provide their ideas without the need for a formal written submission. The questionnaire was designed to enable the GHD team to analyse data that was both quantitative and qualitative in nature.

We also wished to understand more about what suburbs the questionnaire participants lived in, and if they were flood-affected so the team could use this information to gauge and identify highly interested communities for future engagement.

There were five rating scales which sought to identify the level of importance the community placed on a range of typical floodplain resilience options, from one (not important) to six (very important).

The last section encouraged people to note any other options, ideas and feedback they wanted to share.

4.4.2 Questions

A summary of the questions is listed below and a copy is provided at Appendix G.

- a) Which area of Bundaberg do you live in?
- b) Was your property or business flooded in 2013?
- c) As part of the Burnett River Floodplain Action Plan, how important is it for Council to consider:

1. Implementing early flood warning initiatives



2. Emergency evacuation plans, community awareness initiatives, flood gauge markers



3. Building modifications to existing properties such as raising and restumping



4. Reviewing building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts



5. Structural projects such as levees



d) What other options, ideas and feedback would you like to share?

4.4.3 Overview of key findings from the community questionnaire

While further findings and analyse is provided on the following pages, a short summary of the findings, includes:

- 71% of questionnaire respondents were flood affected
- 57% were from North Bundaberg
- Almost half of all respondents were flood affected residents of North Bundaberg
- The community rated the flood response initiatives as the most important – for example, early flood warning initiatives, evacuation plans, community awareness initiatives, flood gauge markers are all considered highly important
- Those not impacted by floods placed greater emphasis on the importance of reviewing planning and building codes
- Flood-affected people saw early warnings as more important than flood modifications (noted as 'structural' on the questionnaire)
- Interestingly, those not affected, saw structural projects (flood modifications) as more important than those who were affected.

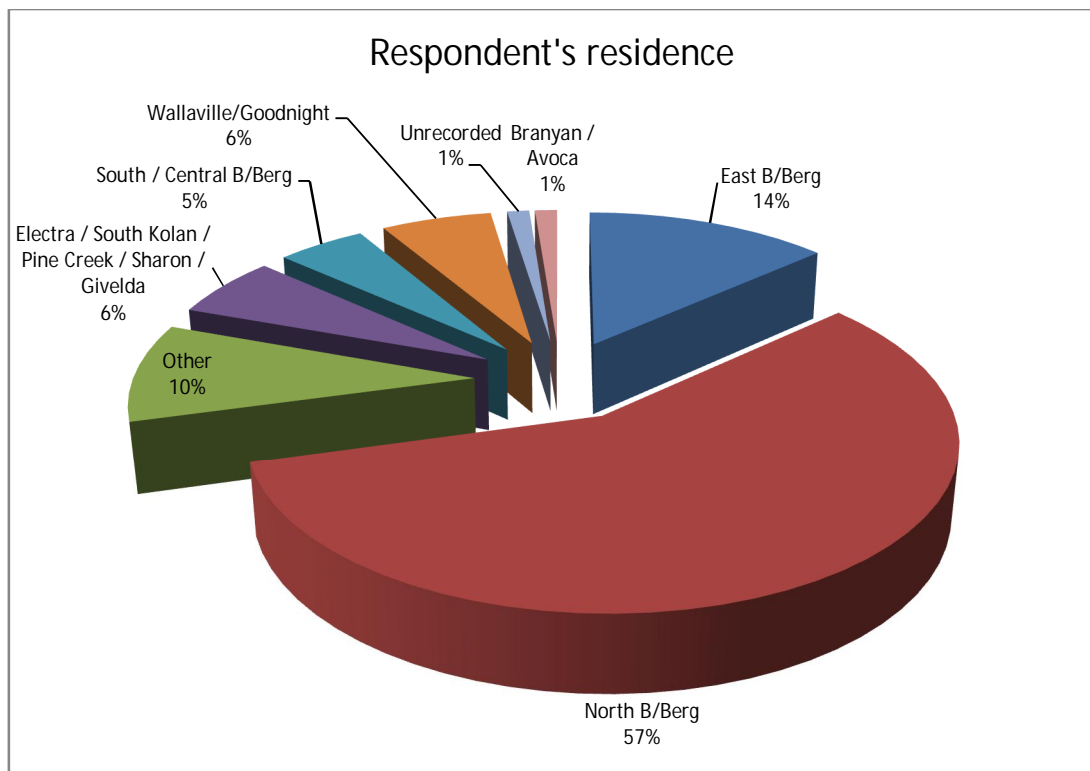
4.4.4 Specific key findings, by question

a) Respondent's residential location

Figure 6 illustrates that respondent's residence is as follows:

- More than half lived in North Bundaberg, which is an expected result given the extent of the impacts in this area, and the higher number of Information Sessions held in this area
- There was a not insignificant level of interest from East Bundaberg residents at 14%
- There was also a range of respondents from Electra / South Kolan / Pine Creek / Sharon / Givelda, the Wallaville/Goodnight area, Branyan, Avoca and South and Central Bundaberg.

Figure 6 - Respondent Location

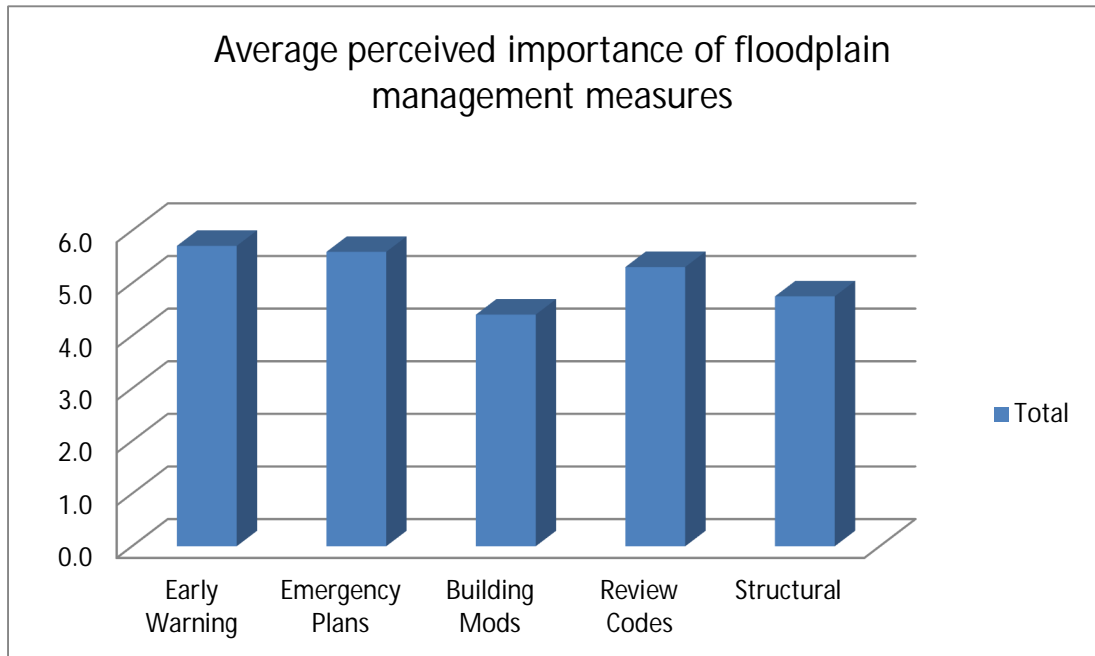


b) Overall perceived importance of each floodplain resilience option / measures (with 6.0 being very important, and 1.0 being not important)

Figure 7 illustrates the ranking of floodplain resilience measures/options for consideration by Council for inclusion in the Action Plan, in order of perceived importance:

1. Early flood warning initiatives (average ranking was 5.7)
2. Evacuation plans, community awareness initiatives, flood gauge markers (average ranking was 5.6)
3. Review of building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts (average ranking was 5.3)
4. Structural projects such as levees (average ranking was 4.8)
5. Building modifications to existing properties such as raising and restumping (average ranking was 4.4)

Figure 7 - Importance of Options/Measures

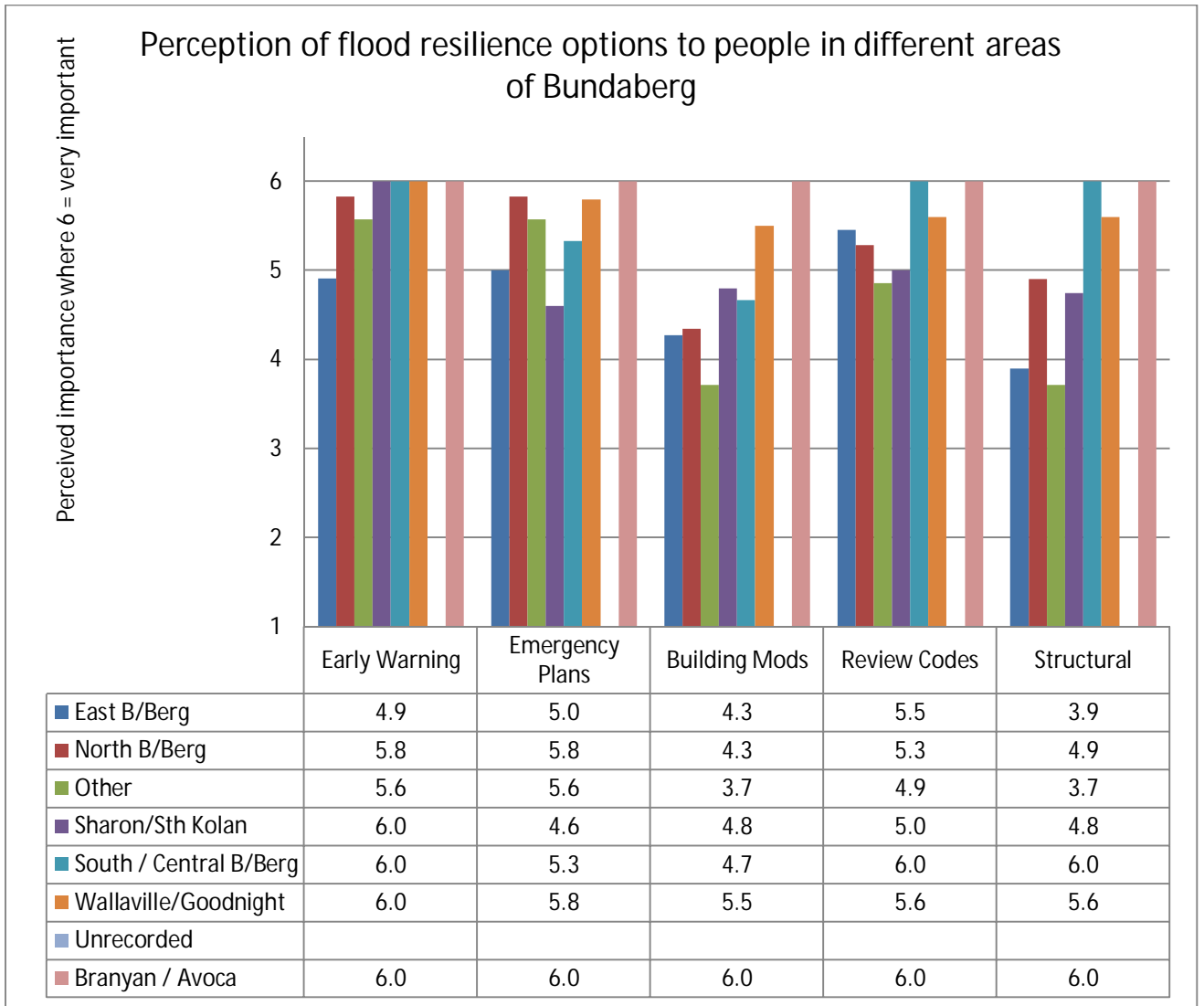


c) Perceived importance of each floodplain resilience option / measures according to different areas of Bundaberg

Figure 8 illustrates that the different perceived level of importance of floodplain resilience measures/options according to the different regions:

- Each area differed in their opinions, particularly with opinions of structural / flood modification options or measures
- Early flood warning initiatives were considered important to all regions.

Figure 8 - Perception of Flood Resilience

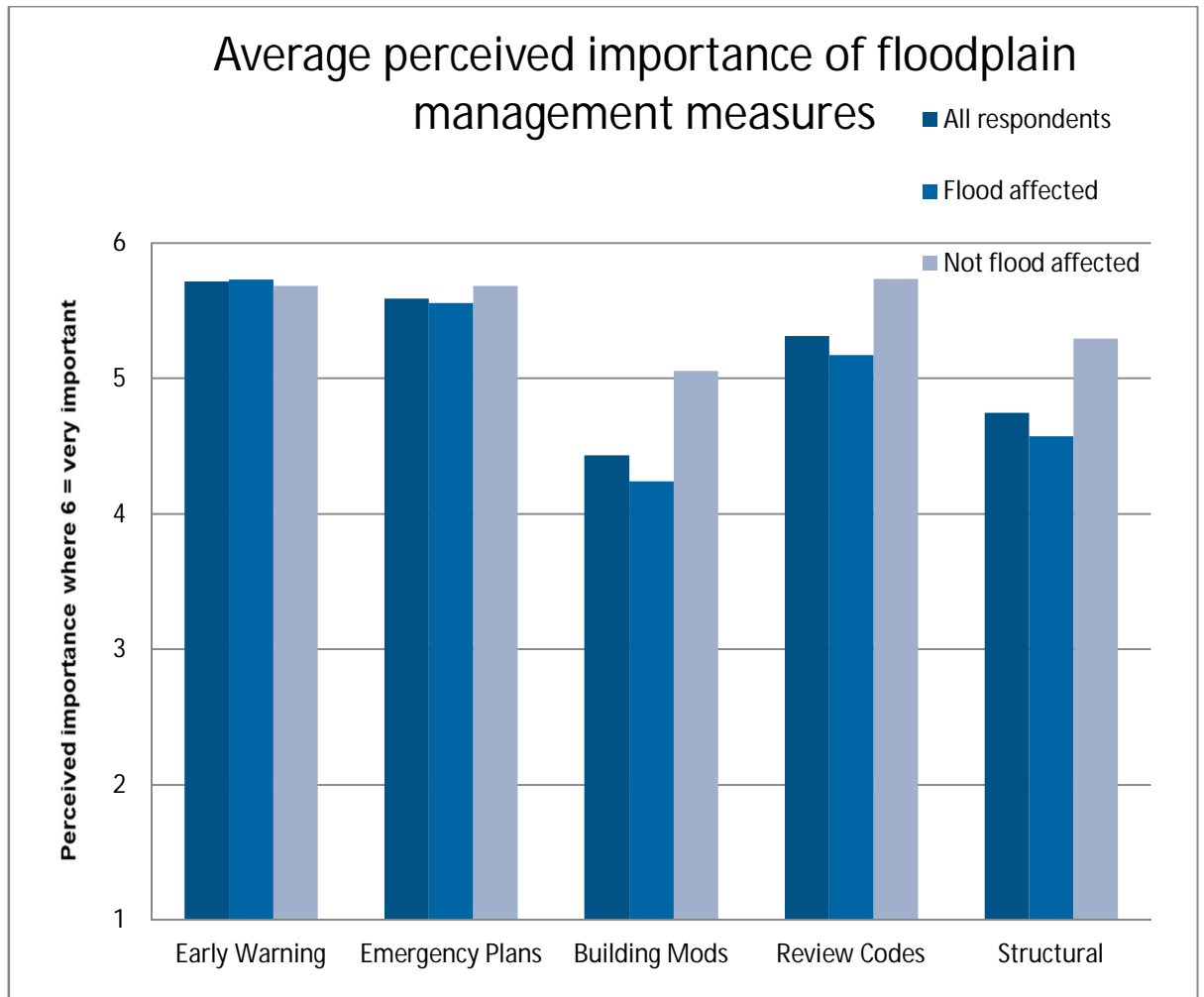


d) The perceived importance of each flood plain resilience option / measures – flood-affected v's non-flood affected

Figure 9 illustrates that:

- Flood-affected people saw response modifications (noted as 'early flood warnings' on the questionnaire) as more important than flood modifications (noted as 'structural' on the questionnaire)
- Interestingly, those not affected, saw flood modifications as such levees and other structural projects more important than those who were affected.

Figure 9 - Importance of Floodplain Management Measures



4.4.5 Key community comments (from the questionnaire comments field and post-it note ideas board at Info Sessions)

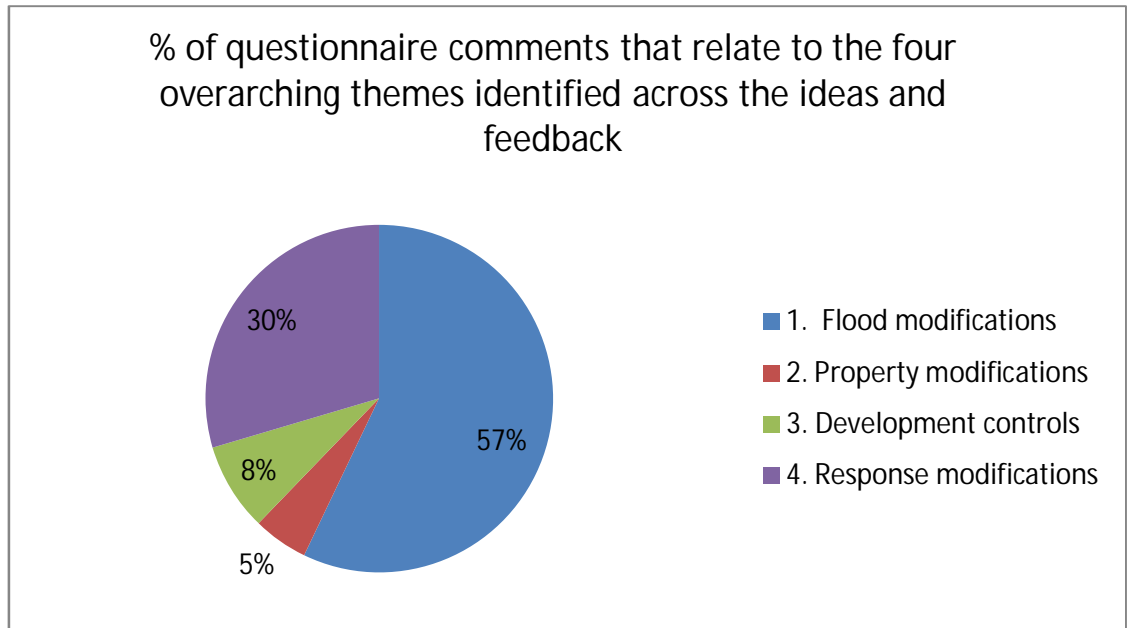
To gain further insights into what the community would like Council to consider when developing its Burnett River Floodplain Action Plan, GHD undertook further analysis of the words and phrases used in the comments section of the questionnaire.

Below is a visual 'word cloud' that shows you the key words and phrases that came through across the questionnaire comments and on the post-it notes.

The larger words in the word cloud appeared several time, and in a number of contexts. Words that came up often include:

- Dredge / Dredging

Figure 10 - Themes Identified from Questionnaire Comments



4.4.1 Key community comments by theme

Table 4 below highlight some of the range of comments noted on the questionnaire.

The full suite of comments is provided at Appendix H.

Table 4 - Questionnaire Comments

Theme	Example comments
Flood modifications	<ul style="list-style-type: none"> Do not remove barrage because millions of tonnes of sand held back will end up down stream and cause a bigger flood down stream Dredging of the river. Remove Ben Anderson barrage. Treat problem areas e.g. dredging and not spend valuable finances repairing homes & businesses over and over again More important Flood Gates. 1.6m in our house...so something should be done.
Property modifications	<ul style="list-style-type: none"> What is the flood level associated with my property (all in AHD)? It would not be practical to raise the floor of my business What is the floor level of 'my' living floor? I would like funding and help with river bank stabilization which is getting closer to our home. Help with all kinds of suitable plants and trees to plant to help stabilise river bank

Theme	Example comments
Development controls	<ul style="list-style-type: none"> • Advise residents of levels taken of their property. i.e. inundation level taken at each garage door • Clear zoning of streets - estates that have not been affected but have limited access are identified to be able to return to homes • Council free up some parcels of land like Grantham. Ballot of people that want to participate in relocation of homes • Establish long term development planning so we don't build on flood plains
Response modifications	<ul style="list-style-type: none"> • Community awareness regarding personal affects as these can be long term. A roster system to help the community so it all doesn't come at once. It should be staggered. We were inundated with help the first few days and then nothing. Help should be spread out • Operational centre for Police & SES, Secure AQC site • Improve early warning process and alarms • Early warnings and ongoing information is paramount. With no power and no phone the information must come by SMS, ABC radio to keep us updated and safe. • On the North Side - loud speakers, sand bags, some official logo to use to help evacuate the locals when in boats, put/buy some army ducks, SES office/station on the north side.

5. Key recommendations

5.1 Initiatives to be considered for inclusion in the Action Plan

Based on GHD's analysis of findings from the written submissions, questionnaire, and anecdotal feedback and response at the Information Sessions, the floodplain resilience measures/options the community would like to see considered for inclusion in the Action Plan, includes:

- **Early flood warning initiatives** such as the incremental flood gauge maps which help explain the relationship between the water level upstream at Paradise Dam, and the corresponding water level downstream in the Bundaberg floodplain, including how long it takes for flood waters to reach Bundaberg. When this project was explained at the Information Sessions, people were very keen to learn more.
- **Emergency response initiatives** such as evacuation plans and maps, community awareness initiatives to help people get better prepared for how and when to evacuate, a review of how to best provide emergency communication updates to the Bundaberg community, introducing more visual reminders and guides for what areas are most flood prone such as flood gauge markers.
- **Flood modification projects** which may include levee specifically to protect areas at greatest risk such as North Bundaberg, dredging of relevant areas of the Burnett River, a review of the effectiveness of the Ben Anderson Barrage/other weirs.

Considered less important for inclusion in the Action Plan was:

- A review of building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts
- Building modifications to existing properties such as raising and restumping.

5.2 Other recommendations specific to the next steps

Based on GHD's close involvement in the consultation program, and its review of the community feedback and wishes, the GHD team recommends the following:

1. Keep the community regularly updated about the project's progress following the completion of consultation, to ensure the team 'closes the loop' and reports back on the outcomes
2. Ensure those who participated in the consultation receive swift notification of the top five options that Council are taking forward
3. Widely promote and communicate the top five options, including details of the reasons for making those choices, and consider outlining the top 20 and outline why they were discounted
4. Promptly respond to any ongoing community and stakeholder questions raised via the floods@bundaberg.qld.gov.au email address
5. Communicate the next steps to achieve funding support and any further engineering assessments required to progress and confirm the Action Plan
6. Seek to roll out the projects relating to early flood warning initiatives and emergency response initiatives as they are completed, rather than implementing them at the same time as structural projects (which are likely to be implemented following further engineering assessments and funding confirmation)

7. Continue to actively involve the Community Reference Group and technical representatives until the top five options are confirmed, and keep the groups well-informed of progress until the Action Plan is delivered
8. Run another round of Community Information Sessions mid 2014 to widely display the Draft Final Burnett River Floodplain Action Plan content, paying particular attention to communicating information about initiatives that specifically relate to early flood warnings and emergency response. Resource this stage of the project appropriately to ensure the best possible results and to build on the positive platform developed with the community throughout the September consultation efforts.

Appendix A – Project Fact Sheets

Fact Sheet

Burnett River Floodplain Action Plan

The Multi-Criteria Assessment process

The Multi-Criteria Assessment (MCA) process will give Council a solid plan to assist in reducing the devastating effects of flooding to the region.

This high level, technical analysis will determine the top five options that will undergo further engineering assessment before being determined for incorporation into a floodplain management action plan.

The MCA will objectively consider options based on the feasibility, effectiveness, social, environmental and economic advantages and disadvantages of each. The Community Reference Group will help determine how much weight is given to each of these criteria before it is fed into the MCA process.

By the end of the year, once the options have gone through the Multi-Criteria Assessment, Council will have identified the top five floodplain management options and strategies to take forward.

Is this the best approach?

The main function and benefit of implementing this approach is that it provides a robust and transparent tool in which options can be measured and if not viable, can be discounted so that Council can explore the more viable options in a more comprehensive and timely manner.

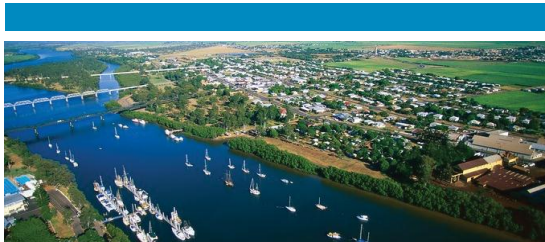
This is an interactive approach which, with input from Council and relevant stakeholders, will provide a holistic understanding of constraints and opportunities.

What options will be fed into the MCA process?

The floodplain management options relate to three areas:

- **Property Modification Measures**
 - This relates to modifications to existing buildings to remove them from flooding.
 - Options could include re-zoning and house raising.

- **Response Modification Measures**
 - This is aimed at increasing the ability of people to respond appropriately in times of flood and/or enhancing the flood warning and evacuation procedures in an area.
 - Options may include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans.



Fact Sheet

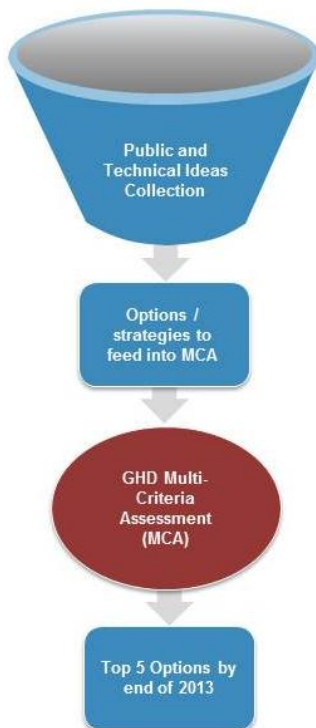
- **Flood Modification Measures**

- This relates to the designing measures to alter the behaviour of the flood itself by reducing flood levels and/or velocities or by excluding flood waters from areas at risk.
- Options may include levees, river dredging and vegetation removal.

Ideas and feedback on these options will be sought from the public, Community Reference Group members, and Technical Working Group representatives and then a refined set of options will be fed into the MCA process to be assessed on the following criteria:

- Feasibility
- Effectiveness
- Social
- Environmental and
- Economic

The Community Reference Group and Technical Working Group will help determine how much weight is given to each of these criteria before it is fed into the MCA and then once the process is complete in November 2013, the top five options for Council to take forward will be determined.



Next Steps

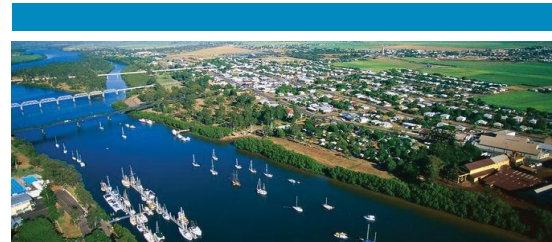
Based on the outcomes of the MCA process, five flood risk management options will be identified for funding purposes by December 2013 and undergo additional detailed assessment.

These options will form part of a range of other initiatives to be developed as part of the Floodplain Action Plan due for completion by mid-2014.

For more information, please contact the Bundaberg Regional Council team at:

P: 1300 883 699

E: floods@bundaberg.qld.gov.au



Fact Sheet

Burnett River Floodplain Action Plan

The public consultation process - September, 2013

Council is seeking ideas and feedback from members of the community to better understand what options and strategies they would like Council to consider as part of the Burnett River Floodplain Action Plan.

The project will be informed by consultation with the community and technical representatives, and confirm the top five floodplain management options and strategies.

The public ideas collection will include feedback from the public, a dedicated independently-facilitated Community Reference Group and a Technical Working Group. The ideas and feedback will be summarised in a report and be fed into the Multi-Criteria Assessment (MCA). The MCA will provide a robust and transparent tool to refine resilience strategies informed by the public consultation by assessing them against a set of agreed weighted criteria.

Who makes up the Community Reference Group (CRG)?

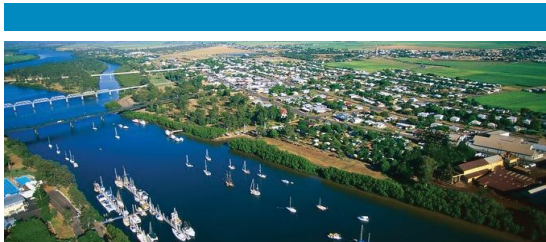
Members of the CRG will play an active role in the development of the Action Plan and gather the collective thoughts and ideas from their respective community networks. This will ensure Council can consider all aspects when deciding on the set of options that will be fed into the MCA process.

Through a letter of invitation and via a public call for interested parties, CRG members will represent a wide cross-section of the community and include residents directly impacted by the floods, community services representatives, environmental groups and business/industry leaders.

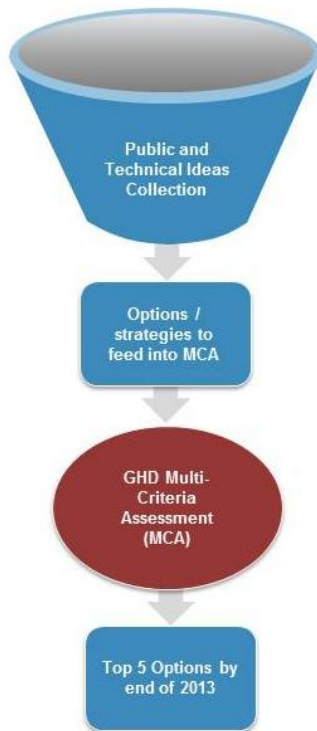
An independent Chairperson will be appointed to conduct and manage meeting proceedings with the objective of ensuring the meetings are run fairly and without bias.

Key responsibilities of the members include:

- Providing input into the development of the Burnett River Floodplain Action Plan
- Communicating information and updating their respective networks
- Participating in the project's public consultation program to help encourage the gathering of ideas and feedback from the community
- Collectively agreeing to the floodplain management options assessment criteria and weighting used during the MCA; and



Fact Sheet



- Representing the community by submitting a report to Council in early December 2013 detailing the CRG's refined list of floodplain management options.

What is the Technical Working Group (TWG)?

In parallel with the public ideas collection, technical inputs from key stakeholder organisations will be sought at critical points in the process. The TWG will seek to gain insight into the individual requirements and concerns of State Government agencies such as the SES, Transport and Main Roads, and Emergency Services.

The TWG will identify and discuss potential floodplain management strategies, including options put forward by the CRG and also collectively agree to the floodplain management options assessment criteria and weighting used during the MCA.

How else can the community participate in the consultation process?

Wider public consultation will be conducted by holding six information sessions at various locations throughout the Bundaberg region. This is a golden opportunity for residents to learn more about the project and have an opportunity to speak with project team members and provide their feedback.

To view the information session dates and venues, please visit <http://bundaberg.qld.gov.au/> or contact the Bundaberg Regional Council team at:
P: 1300 883 699

E: floods@bundaberg.qld.gov.au

How you can give us your ideas

Email:

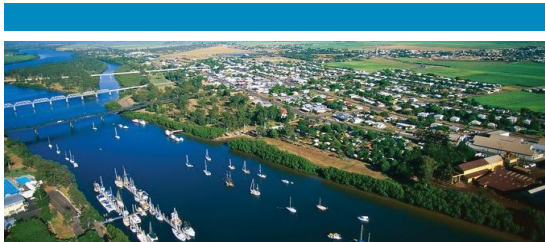
floods@bundaberg.qld.gov.au

Online submissions:

<http://bundaberg.qld.gov.au/>

Mail:

CEO Bundaberg Regional Council
PO Box 3130
BUNDABERG Qld 4670



Fact Sheet

BURNETT RIVER FLOODPLAIN ACTION PLAN **September, 2013**

The development of the Burnett River Floodplain Action Plan will confirm the top five floodplain management options and strategies to improve the region's flood resilience and preparedness.

The development of the Action Plan follows the completion of a comprehensive two-year flood modelling and mapping study of the Burnett River floodplain located between Paradise Dam and the river mouth.

What's already happened – the Flood Study

Bundaberg Regional Council and GHD recently completed the two-year study of the region's flooding behaviour to gain a comprehensive understanding of the cause, effects, severity and frequency of recent and future Burnett River flood events.

The flood study provides vital information to underpin the development of the Burnett River Floodplain Action Plan.

It provides a solid and detailed account of what may happen during a flood and provides Council with:

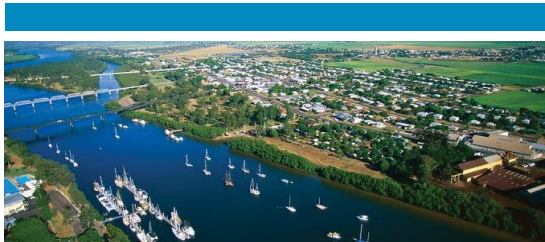
- Calibrated flood models
- Flood inundation maps for a range of flood events that indicate the potential flood extents, levels, depths, velocity and flood hazard for the floodplain located between Paradise Dam and the river mouth
- An improved understanding of the behaviour of flooding across the floodplain
- An improved understanding of the impact of infrastructure such as dams and hydraulic structures on river flow rates and flood levels; and
- An improved understanding of flood warning times.

What's next – development of the Burnett River Floodplain Action Plan

The Action Plan is the next step in the process and will use the technical and scientific data from the flood study to develop a range of floodplain management options that aim to reduce the potentially devastating impacts of future flooding in the Bundaberg region.

The process will be informed by consultation with the community and technical representatives to identify and confirm the top five floodplain management options and strategies.

The Action Plan will be informed by:



Fact Sheet

- Two years' of data from the Flood Study Report
- An independently-facilitated Community Reference Group
- Technical Working Group meetings
- Feedback and ideas through public consultation program; and
- Discussions with industry and business stakeholders.

Public and technical ideas collection

Council is seeking ideas and feedback from members of the community to better understand what options and strategies they would like Council to consider as part of the project.

The project team is looking for ideas that fall within the following three areas:

1. Property and planning

Options may include re-zoning, house raising, building and development controls and flood proofing buildings.

2. Community emergency preparedness

Options may include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans.

3. Structural projects

Options may include levees, river dredging and vegetation removal.

The Council will develop two reference groups to guide the development of the Action Plan – a Technical Working Group comprising Government and technical engineering professionals; and a Community Reference Group (CRG) representing a diverse cross-section of the community.

How will community feedback and ideas be filtered into feasible options?

The ideas and feedback from the public, CRG members, and the Technical Working Group representatives will be summarised in a report and fed into a Multi-Criteria Assessment (MCA) process later in the year.

How you can give us your ideas

Email:

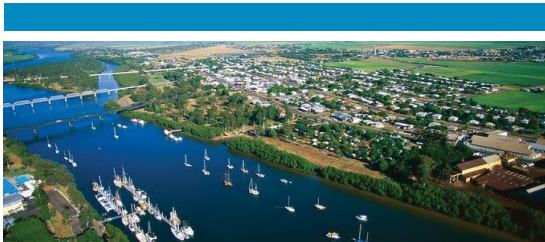
floods@bundaberg.qld.gov.au

Online submissions:

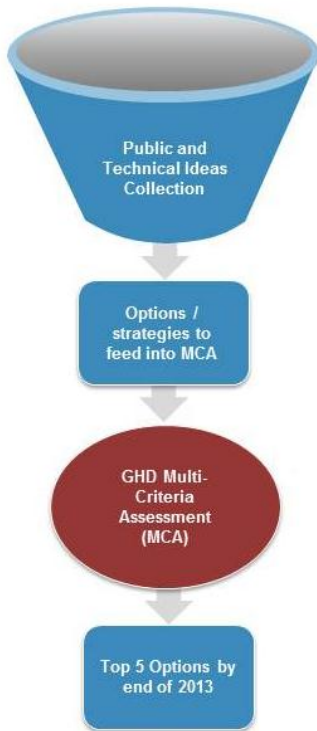
<http://bundaberg.qld.gov.au/>

Mail:

CEO Bundaberg Regional Council
PO Box 3130
BUNDABERG Qld 4670



Fact Sheet



The MCA process will objectively consider options based on the feasibility, effectiveness, social, environmental and economic advantages and disadvantages of each. The CRG will help determine how much weight is given to each of these criteria before it's fed into the MCA process. The MCA will determine the top five options that will undergo further engineering assessment before being determined for incorporation into the Floodplain Management Action Plan.

Next steps

Based on the outcomes of the MCA process, five floodplain management options will be identified for funding purposes by December 2013 and undergo additional detailed assessment. These options will form part of a range of other initiatives to be developed as part of the Floodplain Action Plan due for completion by mid-2014.

Burnett River Floodplain Action Plan key milestones

September

- Establishment of the Community Reference Group and Technical Working Group
- Commence public consultation

October

- Delivery of Consultation Report

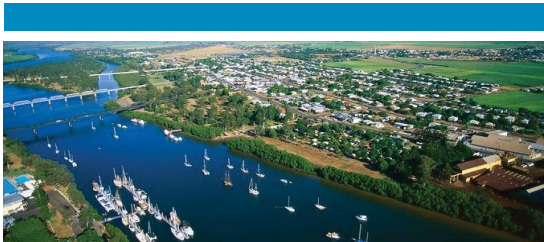
November

- Technical Working Group and Community Reference Group to develop a set of floodplain management options to be fed into the MCA process

December

- Completion of the MCA process and identification of the top five floodplain management options to take forward.

For more information, please contact the Bundaberg Regional Council team at 1300 883 699 or email: floods@bundaberg.qld.gov.au.



Appendix B – Frequently Asked Questions



Frequently Asked Questions: Burnett River Floodplain Action Plan

September 2013

1. What is the Burnett River Floodplain Action Plan?

The Burnett River Floodplain Action Plan will confirm the top five floodplain management options and strategies to improve the region's flood resilience and preparedness.

The development of the Action Plan follows the completion of a comprehensive two-year flood modelling and mapping study of the Burnett River floodplain located between Paradise Dam and the river mouth.

2. What information will be used to develop the Burnett River Floodplain Action Plan?

The Action Plan will use the technical and scientific data from the flood study to develop a range of floodplain management options that aim to reduce the potentially devastating impacts of future flooding in the Bundaberg region.

The process will also be informed by consultation with the community and technical representatives to identify and confirm the top five floodplain management options and strategies.

The Action Plan will be informed by:

- Two years' of data from the Flood Study Report
- An independently-facilitated Community Reference Group
- Technical Working Group meetings
- Feedback and ideas through consultation; and
- Discussions with industry and business stakeholders.

3. When will the top five floodplain options and strategies be announced?

December, 2013. The top five floodplain management options will be identified in December and will undergo detailed engineering assessment in the first half of 2014.

Due for completion by mid-2014, the Action Plan will identify a range of other initiatives and strategies to provide a coordinated mix of measures that aim to address existing and potential future flooding risks.

4. Can residents be confident the most suitable options will be determined for the region?

Yes. Using a high level, technical analysis, the Multi-Criteria Assessment (MCA) process will give Council a solid plan to assist in reducing the devastating effects of flooding to the region.

The Multi-Criteria Assessment will provide a robust and transparent tool to refine resilience strategies informed by consultation by assessing them against a set of agreed weighted criteria.

Based on the outcomes of the MCA process, five flood risk management options will be identified for funding purposes by December 2013 and undergo additional detailed assessment.

Due for completion by mid-2014, the Action Plan will identify a range of other initiatives and strategies to provide a coordinated mix of measures that aim to address existing and potential future flooding risks.

5. What is the role of the Community Reference Group (CRG) for the project?

Members of the CRG will play an active role in the development of the Action Plan and gather the collective thoughts and ideas from their respective community networks. This will ensure Council can consider all aspects when deciding on the set of options that will be fed into the MCA process.

The CRG members represent a wide cross-section of the community and include residents directly impacted by the floods, community services representatives, environmental groups and business/industry leaders.

An independent Chairperson, Mr Rowan Bond, has been appointed to conduct and manage meeting proceedings with the objective of ensuring the meetings are run fairly and without bias.

6. What is the role of the project's Technical Working Group (TWG)?

In parallel with the community ideas collection, technical inputs from key stakeholder organisations will be sought at critical points in the process.

The TWG will seek to gain insight into the individual requirements and concerns of State Government agencies such as the SES, Transport and Main Roads, and Emergency Services.

The TWG will identify and discuss potential floodplain management strategies, including options put forward by the CRG and also collectively agree to the floodplain management options assessment criteria and weighting used during the MCA.

7. What is the difference between the Burnett River Flood Study and the Burnett River Floodplain Action Plan?

The flood study provided vital information to underpin the development of the Burnett River Floodplain Action Plan. It provides a solid and detailed account of what may happen during a flood and provides Council with:

- Calibrated flood models
- Flood inundation maps for a range of flood events that indicate the potential flood extents, levels, depths, velocity and flood hazard for the floodplain located between Paradise Dam and the river mouth
- An improved understanding of the behaviour of flooding across the floodplain

- An improved understanding of the impact of infrastructure such as dams and hydraulic structures on river flow rates and flood levels
- An improved understanding of flood warning times.

8. What will this Action Plan achieve?

This work will give Council a solid plan to assist in reducing the devastating effects of flooding to the region.

This whole process has been, and continues to be, about making informed, rational and workable decisions to build flood resilience and preparedness in the community.

9. What sorts of options are being considered for the Action Plan?

- Property Modification Measures which could include re-zoning, house raising
- Response Modification Measures, which may include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans
- Flood Modification Measures, which may include levees, river dredging and vegetation removal.

10. What work has been done since January 2013?

Bundaberg Regional Council and GHD started work studying the region's flooding behaviour in 2011 to gain a comprehensive understanding of the cause, effects, severity and frequency of recent and future Burnett River flood events.

With significant assistance from the community (as was done after the 2010 and 2011 floods) council collated peak flood levels from the river mouth to Paradise Dam. This data was then used to calibrate the flood model to the January flood to ensure the model was able to replicate flood behaviour across the lower Burnett River. Being the largest flood event in recorded history with an inundation footprint of some 275km², it has taken some months to gather the necessary data for inclusion in the flood study. After exhaustive work, the flood study is now complete and provides vital information to underpin the development of the Burnett River Floodplain Action Plan.

Councils landfills received around 90,000 tonnes of flood waste and were able to recycle around 40% of this. Aside from the extensive work council was doing to clean up and remove this waste a significant technical investigation was undertaken to develop a guideline for mitigation of flood induced scour on dwellings built in a flood hazard area. This document is unique to Australia in addressing foundation conditions and velocity information from flood models to improve resilience of residential foundations.

Council has prepared a Temporary Local Planning Instrument (TLPI) to facilitate a short to medium term response to address the management of land use issues immediately following the 2013 Flood event. Council recognises that the 2013 event affected catchments outside the Burnett River and is reviewing the data from these events to formulate an appropriate flood

response for these localities. As approximately 80% of the flood damage occurred within the Burnett River catchment, Council has given priority to this locality for the most immediate flood response. Further information on this can be found on Council's website:

<http://bundaberg.qld.gov.au/development/regulatory-building-planning-flood-response>

The Burnett River Floodplain Action Plan is the next step in the process and will use the technical and scientific data from the flood study to develop a range of floodplain management options that aim to reduce the potentially devastating impacts of future flooding in the Bundaberg region.

11. How much of a say will the community have?

Council is seeking ideas and feedback to better understand what options and strategies they would like Council to consider as part of the project.

The Burnett River Floodplain Action Plan will be informed by consultation with the community and technical representatives to identify and confirm the top five floodplain management options and strategies.

The project will be supported by a dedicated, independently facilitated Community Reference Group which will be in place for the duration of the project.

Ideas and feedback from the community, the Community Reference Group members, and the Technical Working Group representatives will be summarised and fed into the Multi-Criteria Assessment (MCA) process later in the year.

12. If the options that come out of the MCA differ from that of the community will you undertake further consultation?

Everything we do must be rigorously assessed, and stack up in terms of its engineering feasibility, and advantages and disadvantages.

The Multi-Criteria Assessment will provide a robust and transparent tool to refine resilience strategies informed by the consultation by assessing them against a set of agreed weighted criteria. The project's Community Reference Group will help determine how much weight is given to each of these criteria before it is fed into the MCA process.

It will objectively consider options based on the feasibility, effectiveness, social, environmental and economic advantages and disadvantages of each.

13. What information came from the flood study?

The flood study provides a solid and detailed account of what may happen during a flood and provides Council with:

- Calibrated flood models

- Flood inundation maps for a range of flood events that indicate the potential flood extents, levels, depths, velocity and flood hazard for the floodplain located between Paradise Dam and the river mouth
- An improved understanding of the behaviour of flooding across the floodplain
- An improved understanding of the impact of infrastructure such as dams and hydraulic structures on river flow rates and flood levels; and
- An improved understanding of flood warning times.

Appendix C – Information Session Flyer

Burnett River Floodplain Action Plan

Come along to our Community Information Sessions!

Come along to a session near you to hear about what we've learned about what happen in the area during a flood, to hear about the work underway to get prepared should another flood occur, and to hear about the work planned to build floodplain resilience across the Region.

Tuesday, September 24

North Bundaberg Progress Hall – 3pm; 5pm and 7pm sessions

Corner of Queen and Gavegan Streets, Bundaberg North

Wednesday, September 25

North Bundaberg Progress Hall – 7am to 9am

Corner Queen and Gavegan Streets, Bundaberg North

East State School Hall – 5pm and 7pm sessions

33 Scotland Street, Bundaberg East

Thursday, September 26

St. George Hall – 5pm to 7pm

2295 Gin Gin Road, near South Kolan School

Friday, September 27

Wallaville Hall – 5pm to 7pm

2 Walla Street Wallaville

Saturday, September 28

Avoca State School Hall – 9am to 11am

(at rear of school), 1 Twyford Street, Avoca





DISCOVER OUR SPIRIT[®]

Burnett River *Floodplain Action Plan*

Come along to our Community Information Sessions

Bundaberg Regional Council is hosting a series of information sessions, starting Tuesday 24 September, 2013, to update the community on the work underway to build floodplain resilience and preparedness across the Region.

Come along to hear about what we've learned through our vital Flood Studies which gives us a strong understanding of what happens in the region during a flood, and to hear about the work underway to help get prepared should another flood event occur.

We also want to hear what options and strategies the community would like Council to consider as part of the Burnett River Floodplain Action Plan - this Plan is

vital as it will confirm the top five floodplain resilience options and strategies to take forward in December 2013.

A range of tools, maps and animations will provide a visual portrayal of the effects of increases in flood water heights across the floodplain in a number of locations.

Members of the newly selected Community Reference Group will be introduced at the meetings. Council needs the support of the community to ensure the best measures are considered.

For further information, visit bundaberg.qld.gov.au/burnett-river-action-plan

Dates, times and locations for the Community Information Sessions are as follows:

Tuesday, September 24

North Bundaberg Progress Hall

Corner of Queen and Gavegan Streets, Bundaberg North

Sessions commence at 3pm; 5pm and 7pm. Sessions are 90 minutes.

Wednesday, September 25

North Bundaberg Progress Hall

*Corner Queen and Gavegan Streets, Bundaberg North.
7am to 9am*

East State School

*33 Scotland Street, Bundaberg East.
5pm and 7pm.*

Thursday, September 26

St. George Hall

2295 Gin Gin Road, near South Kolan School. 5pm to 7pm

Friday, September 27

Wallaville Hall

2 Walla Street Wallaville. 5pm to 7pm

Saturday, September 28

Avoca State School Hall

*Rear of school, 1 Twyford Street, Avoca
9am to 11am.*

Appendix D – Email to Key Stakeholders

18 September 2013

RE: Burnett River Floodplain Action Plan

Good afternoon all

We are writing to update you on an important Council project underway to develop a solid plan to build floodplain resilience and preparedness across the Region. By December, the development of the Burnett River Floodplain Action Plan will confirm the top five floodplain management options and strategies to improve the region's flood resilience and preparedness.

To develop the most effectively floodplain management plan for our region, we are seeking community support to better understand what options and strategies they would like Council to consider as part of the project.

Included in this email is information about what we will be doing to develop the Action Plan and details of the Community Information Sessions starting next week (24 September) which may be of interest to you and your networks.

Thank you in advance for taking the time to read about the Burnett River Floodplain Action Plan. Please feel free to pass this onto your respective members and networks.

What's already happened – the Flood Study

The team has recently completed a two-year study of the region's flooding behaviour to gain a comprehensive understanding of the cause, effects, severity and frequency of recent and future Burnett River flood events.

The flood study provides vital information to underpin the development of the Burnett River Floodplain Action Plan.

It provides a solid and detailed account of what may happen during a flood and provides Council with:

- Calibrated flood models
- Flood inundation maps for a range of flood events that indicate the potential flood extents, levels, depths, velocity and flood hazard for the floodplain located between Paradise Dam and the river mouth
- An improved understanding of the behaviour of flooding across the floodplain
- An improved understanding of the impact of infrastructure such as dams and hydraulic structures on river flow rates and flood levels; and
- An improved understanding of flood warning times.

What's next – consultation to develop the Burnett River Floodplain Action Plan

The Action Plan is the next step in the process and will use the technical and scientific data from the flood study to develop a range of floodplain management options that aim to reduce the potentially devastating impacts of future flooding in the Bundaberg region.

The process will be informed by consultation with the community and technical representatives to identify and confirm the top five floodplain management options and strategies.

Council is seeking ideas and feedback from members of the community to better understand what options and strategies they would like Council to consider as part of the project.

The project team is looking for ideas that fall within the following three areas:

1. Property and planning

Options may include re-zoning, house raising, building and development controls and flood proofing buildings.

2. Community emergency preparedness

Options may include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans.

3. Structural projects

Options may include levees, river dredging and vegetation removal.

Community information sessions – 24 September to 28 September 2013

Bundaberg Regional Council is hosting a series of information sessions, starting Tuesday 24 September, 2013, to update the community on the work underway to build floodplain resilience and preparedness across the Region.

Come along to hear about what we've learned through our vital Flood Studies which gives us a strong understanding of what happens in the region during a flood, and to hear about the work underway to help get prepared should another flood event occur.

We also want to hear what options and strategies the community would like Council to consider as part of the Burnett River Floodplain Action Plan - this Plan is vital as it will confirm the top five floodplain resilience options and strategies to take forward in December 2013.

A range of tools, maps and animations will provide a visual portrayal of the effects of increases in flood water heights across the floodplain in a number of locations.

Members of the newly selected Community Reference Group will be introduced at the meetings. Council needs the support of the community to ensure the best measures are considered.

We would really appreciate if you can help us spread the word and come along to a session most convenient for you.

Location	Session details
North Bundaberg Progress Hall Corner of Queen and Gavegan Streets, Bundaberg North	<u>Tuesday, September 24</u> Sessions commence at 3pm; 5pm and 7pm. Sessions are 90 minutes.
North Bundaberg Progress Hall Corner Queen and Gavegan Streets, Bundaberg North	<u>Wednesday, September 25</u> 7am to 9am;
East State School 33 Scotland Street, Bundaberg East	<u>Wednesday, September 25</u> 5pm and 7pm.
St. George Hall 2295 Gin Gin Road, near South Kolan School	<u>Thursday, September 26</u> 5pm to 7pm
Wallaville Hall 2 Walla Street Wallaville	<u>Friday, September 27</u> 5pm to 7pm
Avoca State School Hall (at rear of school) 1 Twyford Street, Avoca	<u>Saturday, September 28</u> 9am to 11am.

Contact the team

Thank you for taking the time to read about what's happening with this important project. We look forward to seeing you at an information session next week!

To find out more or to ask us a question, you can contact the team at floods@bundaberg.qld.gov.au or you can visit the website for further information at <http://bundaberg.qld.gov.au/>

Appendix E – Consolidated Findings Summary (powerpoint presentation)



Why undertake a structured communication and public consultation program?

To help support the project goal:

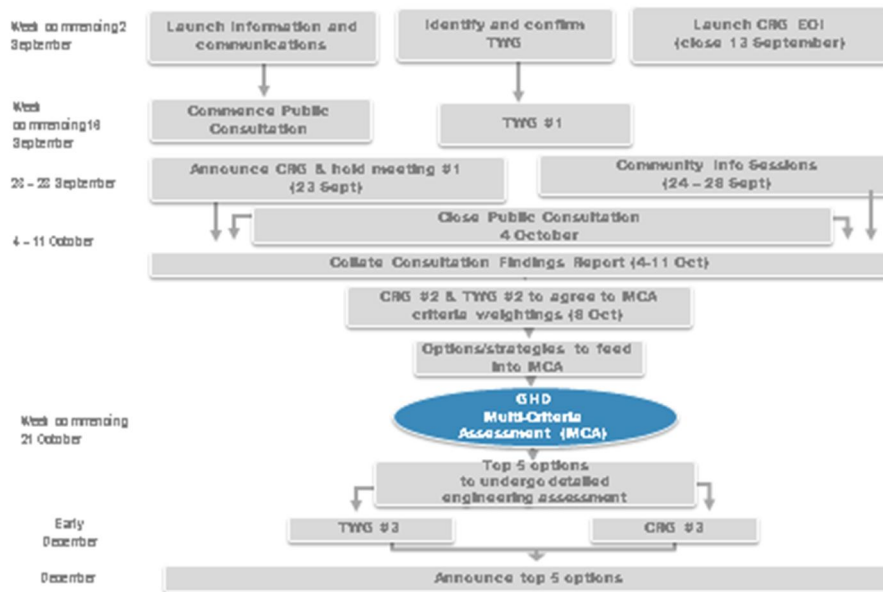
To identify and assess a set of preferred floodplain risk management options that build flood resilience, foster community preparedness, and ultimately save lives.

To achieve the following objectives:

1. Engage directly impacted individuals to build trust, confidence in the process and progress
2. Motivate and inspire community-wide participation to better understand their preferences and opinions
3. Build community-wide awareness of the various floodplain resilience options/measures
4. Clearly and widely communicate the top five options



Consultation timeline



Lead-up activities – to gain interest and awareness

Comprehensive communication, public consultation, stakeholder engagement leading to:

- CRG expressions of interest sought and confirmed
- Media interviews on ABC Wide Bay, 4BU and Seven
- BRC website content updates – prominent location
- Dedicated email floods@bundaberg.qld.gov.au
- Stakeholder briefings and presentations
- Advertisements in 3 local papers to promote CRG and Info Sessions
- E-update to over 10,000+ individuals and organisations to encourage participation
- Speaking role at TAFE on 22 August
- Info Session Posters across community touch-points
- Facebook posts and Tweets reaching 4,000+ people
- Factsheets x 3
- YouTube videos and animations



Ideas and feedback collection

There were four main ways people could get involved:

1. Email your ideas (been receiving feedback and community correspondence since January)
2. Come along to an Info Session
3. Talk to your CRG member
4. Complete a Community Questionnaire



Community information sessions

- 280+ attendees across 10 Community Information Sessions at six locations
- Format included:
 - Outcomes of 2013 flood study
 - Overview of action plan process
 - Info on how to get involved
 - Six display stations and staff, counsellors
 - Opportunity for detailed one-on-one chats with Council and GHD technical leads
 - Attended by Councillors and Mayor Forman

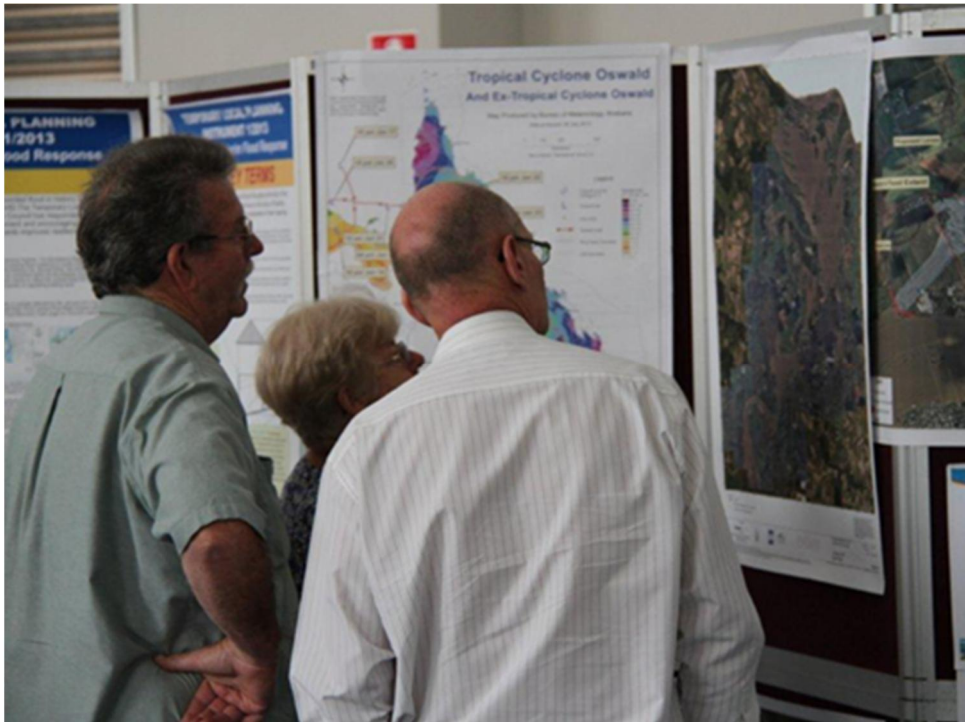


Community information sessions locations and #'s

Location	Sessions dates	Attendees (approximate)
North Bundaberg Progress Hall	Tuesday, 24 September x 3	120
	Wednesday, 25 September x 1	55
East State School Hall	Wednesday, 25 September x 2	60
St George Hall, near South Kolan School	Thursday, 26 September x 1	20
Walkville Hall	Friday, 27 September x 1	10
Avoca State School Hall	Saturday, 28 September x 1	10
Goodnight Scrub	Wednesday, 2 October x 1	6
		Total = 280+

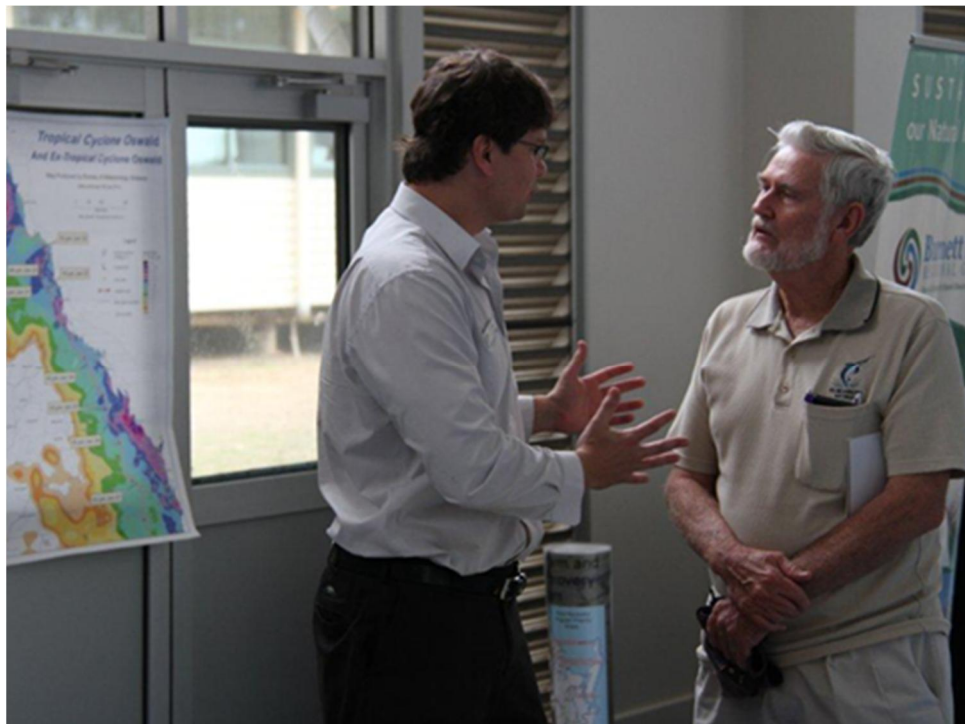












Community feedback and ideas findings

1. Submissions received to Council:

Method	Responses
Public submissions received from January to August (prior to formal consultation period)	44
Public Ideas received during formal consultation period, including via the CRG Members (Sept-October)	114
Anecdotal feedback received at the Information Sessions (received by both BRC and GHD team members)	57
SUBTOTAL	215
Questionnaire and post-its note ideas (from Information Session whiteboard)	82
	31
TOTAL	328

2. Questionnaires and Post-it Notes:

Method	Responses
Questionnaire	82
Post-its	31



The image shows a questionnaire form with the following sections:

- Section 1:** A horizontal bar chart showing responses for 'Very satisfied', 'Satisfied', 'Dissatisfied', and 'Very dissatisfied'.
- Section 2:** A horizontal bar chart showing responses for 'Very important', 'Important', 'Not important', and 'Not at all important'.
- Section 3:** A horizontal bar chart showing responses for 'Very agree', 'Agree', 'Disagree', and 'Very disagree'.
- Section 4:** A horizontal bar chart showing responses for 'Very agree', 'Agree', 'Disagree', and 'Very disagree'.
- Section 5:** A horizontal bar chart showing responses for 'Very agree', 'Agree', 'Disagree', and 'Very disagree'.

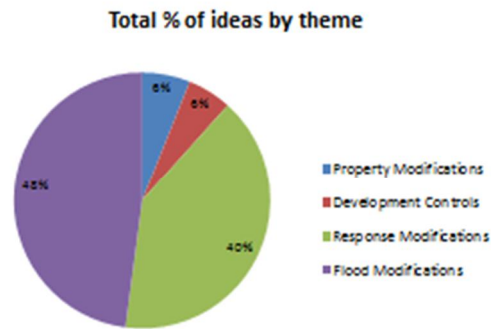


Collated ideas into four manageable themes

Theme	Types of measures, ideas, options
1. Flood Prevention modifications	<ul style="list-style-type: none"> Designing measures to alter the behaviour of the flood itself by reducing flood levels and/or velocities or by excluding flood waters from areas at risk Options may include levees, river dredging and vegetation removal
2. Property modifications	<ul style="list-style-type: none"> Modifications to existing buildings to remove them from flooding Options could include re-zoning and house raising
3. Development controls	<ul style="list-style-type: none"> Reviewing building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts
4. Response modifications	<ul style="list-style-type: none"> Increasing the ability of people to respond appropriately in times of flood and/or enhancing the flood warning and evacuation procedures in an area Options may include improving community awareness, improving flood warning systems, and updating local flood and evacuation plans

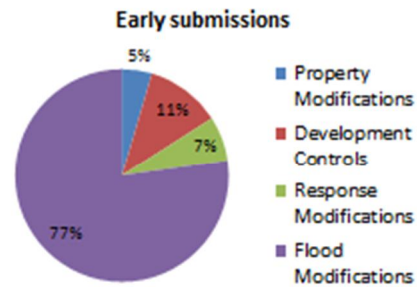
Findings – emailed public submissions, anecdotal feedback (ALL)

- Almost half (48%) the ideas were **about flood modifications** (changing the behaviour of the water)
- Closely followed by 40% of **ideas about responding** during a flood event



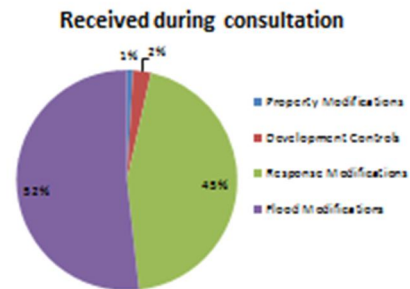
Findings – emailed public submissions, anecdotal feedback (EARLY SUBMISSIONS)

- A large proportion (77%) of ideas where about flood modifications (changing the behaviour of the water) – a natural reaction immediately after a major flood event
- Then followed by 11% about development controls (building and planning codes) – again makes sense in clean-up mode



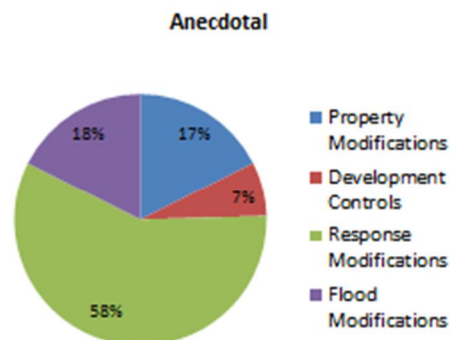
Findings – emailed public submissions, anecdotal feedback (RECEIVED DURING CONSULTATION PERIOD)

- During the consultation, just over half of the consultation participants provided ideas about flood modifications (levees and other structural projects) closely followed by response modifications (45%)
- A small number of ideas came in about development controls and property modifications during the consultation period in September 2013.



Findings – emailed public submissions, anecdotal feedback (ANECDOTAL FEEDBACK RECEIVED BY THE TEAM AT INFO SESSIONS)

- Much smaller number of ideas were received about flood modifications (18% only) when the team talked people one-on-one at the info sessions
- More than half of the ideas were about responding during a flood event (58%)
- Interestingly, people also wanted to discuss property modifications (17%), when previously it was not raised as much in written submissions.



Questionnaire results snap-shot

71% of questionnaire respondents were flood affected

57% were from North Bundaberg

Almost half of all respondents were flood affected residents of North Bundaberg

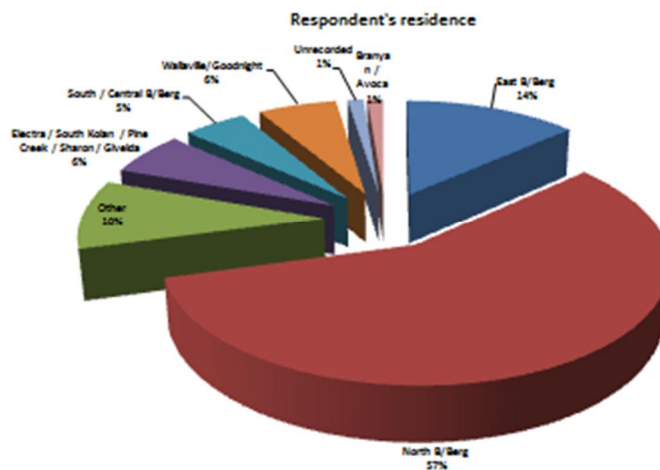
Most important issues were flood response/warning mechanisms and evacuation plans

Those not impacted by floods placed greater emphasis on the importance of reviewing planning and building codes

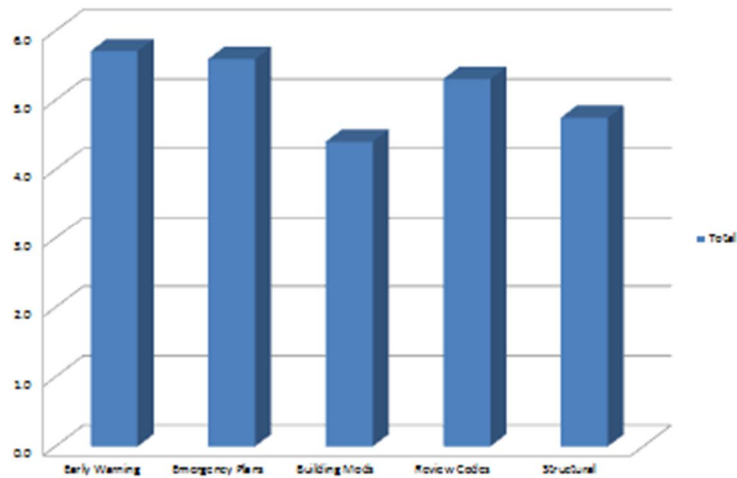
Flood-affected people saw early warnings as more important than flood modifications (noted as 'structural' on the questionnaire)

Interestingly, those not affected, saw structural modifications as more important than those who were affected

Questionnaire findings: Respondent's residence



Average perceived importance of floodplain management measures



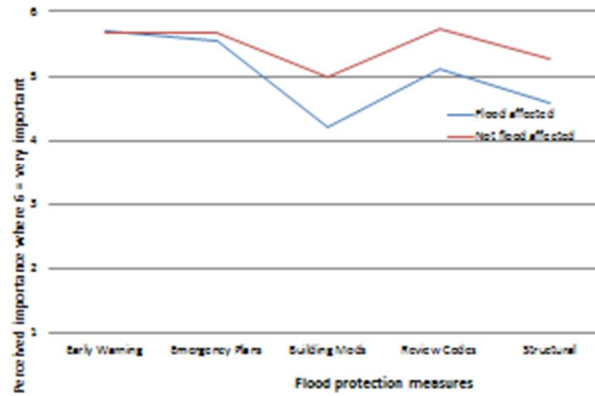
Overall ranking of floodplain resilience measures/options

1. Early flood warning initiatives (average ranking was 5.7)
2. Evacuation plans, community awareness initiatives, flood gauge markers (average ranking was 5.6)
3. Review of building and planning codes such as changed ground floor heights and land uses to reduce the risk of flood impacts (average ranking was 5.3)
4. Structural projects such as levees (average ranking was 4.8)
5. Building modifications to existing properties such as raising and restumping (average ranking was 4.4)

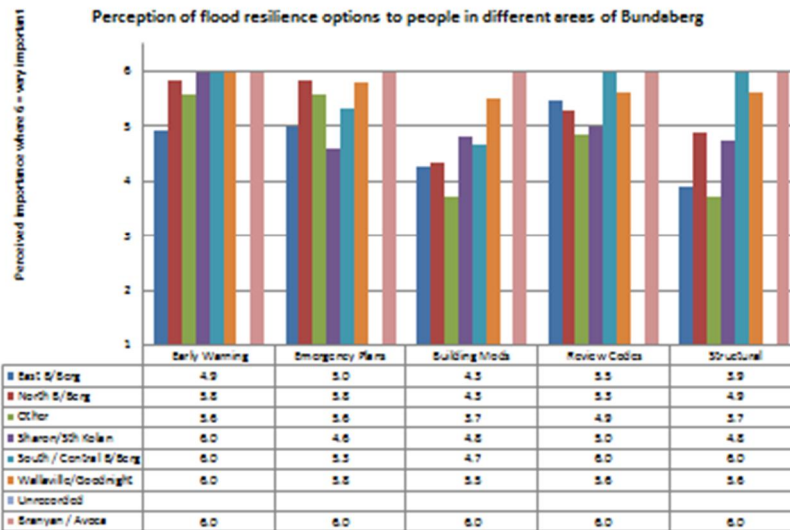


Perceived importance of measures: flood-affected v unaffected people

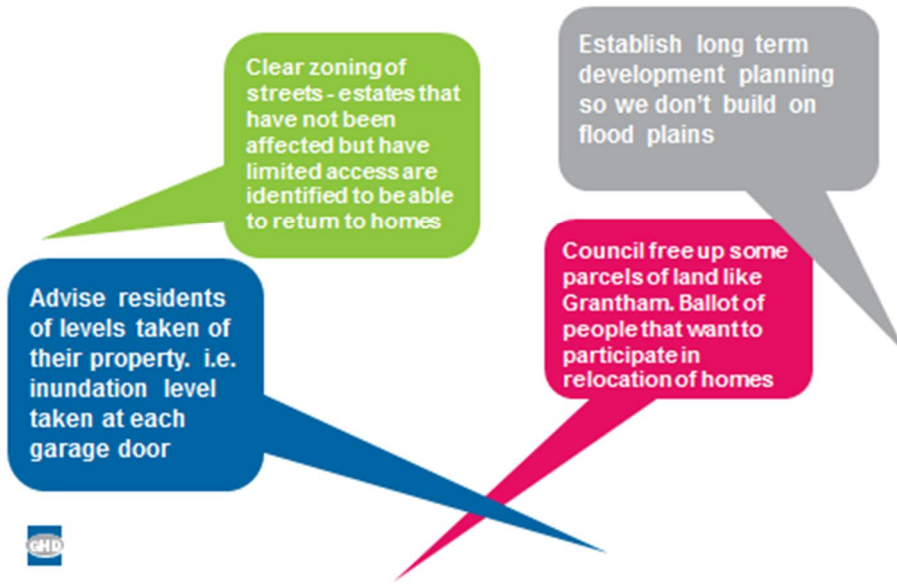
- Flood-affected people saw response modifications (noted as 'early warnings' on the questionnaire) as more important than flood modifications (noted as 'structural' on the questionnaire)
- Interestingly, those not affected, saw structural modifications as more important than those who were affected



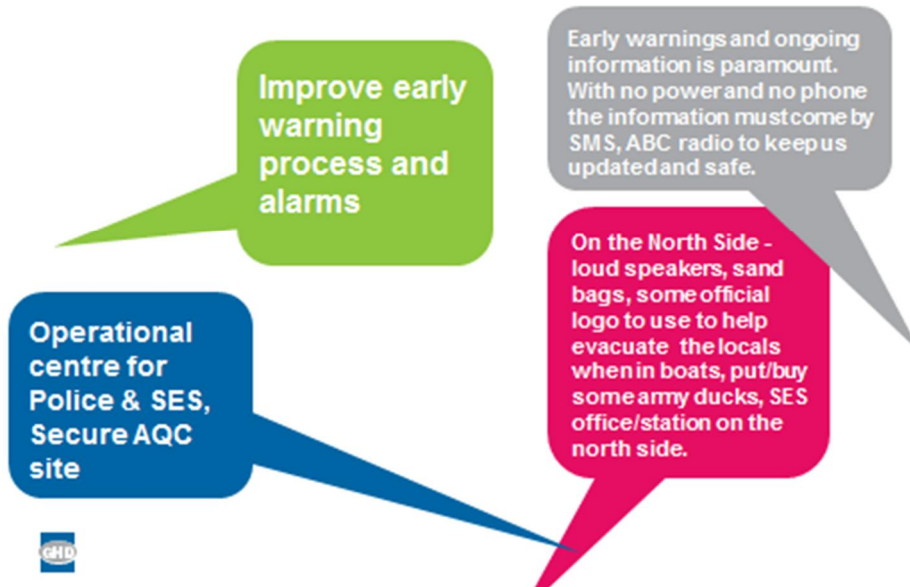
Different ideas from different locations



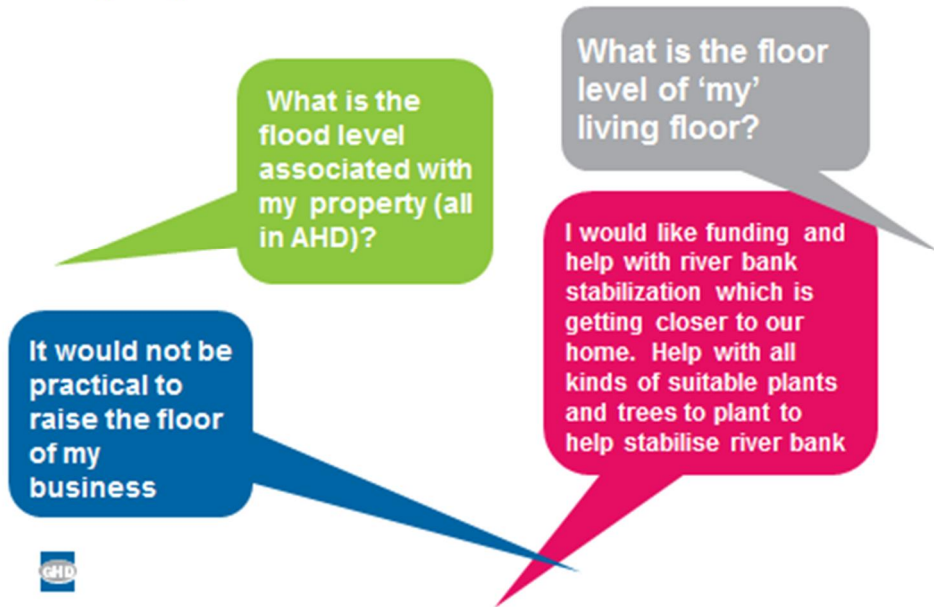
Development controls



Response modifications



Property modifications



Next steps and any questions...

Activity	When
CRG members to agree and confirm the MCA criteria weightings	8 October 2013
GHD's Full Consultation Findings Report to be collated	By Tuesday 29 October and provided to the CRG members for their perusal
GHD to run MCA process and report back	Next CRG meeting (Wednesday 30 October)

Any questions about these initial findings, or the questionnaire, please do not hesitate to ask Brooke Maki, Principal Consultant, GHD



Appendix F – CRG Terms of Reference

BURNETT RIVER FLOODPLAIN MANAGEMENT ACTION PLAN

COMMUNITY REFERENCE GROUP

TERMS OF REFERENCE

1. Background

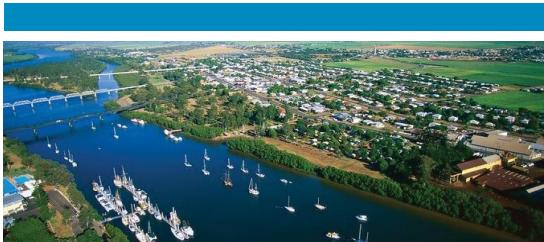
1.1 Purpose

The Burnett River Floodplain Action Plan Community Reference Group (CRG) is a group of interested, voluntary community members established to liaise between Council and the community to help inform the development of floodplain management options and strategies as part of the Burnett River Floodplain Action Plan project work.

The Burnett River Floodplain Action Plan will confirm the preferred floodplain risk management options and strategies to improve flood resilience and preparedness.

This Action Plan is the next step in the process following the completion of a comprehensive flood modelling and mapping study of the Burnett River floodplain located between Paradise Dam and the river mouth. The flood study provides vital information to underpin the development of the Burnett River Floodplain Action Plan.

The first major phase of work involves identifying the top five floodplain management options by December 2013. Some of these options will undergo detailed engineering assessment in the first half of 2014.



1.2 Role

In summary, the voluntary roles of the CRG are to:

- Provide input into the development of the Burnett River Floodplain Action Plan
- Gather the collective thoughts and ideas from their respective networks to help to identify and assess a range of suitable Burnett River floodplain management options
- Communicate information and update their respective networks to ensure they are kept informed of the project's progress
- Act as a conduit for community feedback on the plan's development to the consultant (GHD) and Bundaberg Regional Council
- Participate in the project's public consultation program to help encourage the gathering of ideas and feedback from the community, in order to confirm a filtered set of options to test during a Multi-Criteria Assessment (MCA)
- Collectively agree to the floodplain management options assessment criteria and weighting used during the Multi-Criteria Assessment (MCA). The MCA will be the primary tool used to confirm the top options to undergo detailed assessment if required.
- Represent the community by submitting a report to Council in early December 2013 detailing the CRG's preferred list of floodplain management options. This will be facilitated by the chairperson and require 70% consensus of the CRG members.

The CRG will report and provide feedback on issues raised in the course of the development of the Burnett River Floodplain Action Plan.

This group will also enable community access to information on the project as well as supporting the opportunity for the community to contribute to, and comment on, the development of the Burnett River Floodplain Action Plan.

2. Community Reference Group

2.1 CRG Chair

An independent Chairperson/Facilitator will be appointed to conduct and manage meeting proceedings with the objective of ensuring the meetings are run fairly and without bias.

The role of the Chairperson includes:



- Ensuring individual CRG members are heard and can contribute to the process. At times the Chairperson may have to mediate the process to ensure all parties in the discussion are heard, actions are summarised and a conducive working relationship is maintained.
- Preparing the CRG agenda in consultation with CRG members and the Bundaberg Regional Council
- Overseeing preparation of the meeting minutes
- Ensuring distribution of the meeting minutes
- Overseeing independent reporting on behalf of the CRG
- Attending the community information sessions as part of the wider public consultation for the project (occurring from mid September to early October 2013); and
- Collating issues raised by the CRG and forwarding to Council for a response.

The Chairperson's reasonable fees and expenses shall be met by Bundaberg Regional Council.

2.2 Representation

Voluntary representation on the CRG will be sought from a range of stakeholder groups via an open Expression of Interest invitation.

The CRG members should be representative of a range of key interests, positions and concerns and who collectively represent a wide cross-section of the community, including people directly impacted by the floods, leaders from the education and community services sector, representatives of groups such as the Human and Social Recovery Sub-committee, environmental groups, and our business and industry leaders.

It is intended that the CRG would include approximately 10 individuals from a wide geographic spread.

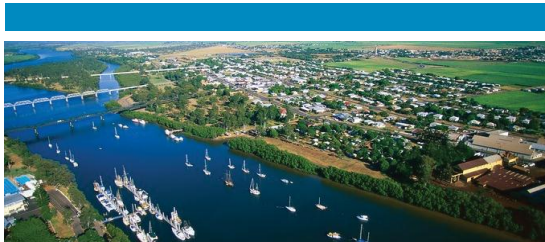
The final selection of representatives will be at the discretion of Council.

Other interested stakeholders that may not be selected onto the CRG will be kept updated and informed on project progress through newsletters, factsheets, Council's website and/or copies of meeting minutes or project reports.

2.3 Recruitment and Selection of CRG members

Recruitment and advertising

During late August 2013, the Bundaberg Regional Council invited the general public to:



1. Submit ideas to improve flood resilience; and/or
2. Express interest to join the Community Reference Group (CRG).

This has been advertised in a range of local newspapers throughout September 2013, appeared on the Bundaberg Regional Council website and social media, and was communicated through a variety of other local networks.

Applications were available online at www.bundaberg.qld.gov.au or hard copies of the application form could be collected from Council's Customer Service Centres and submitted by either:

Email: floods@bundaberg.qld.gov.au

Mail: CEO Bundaberg Regional Council

PO Box 3130

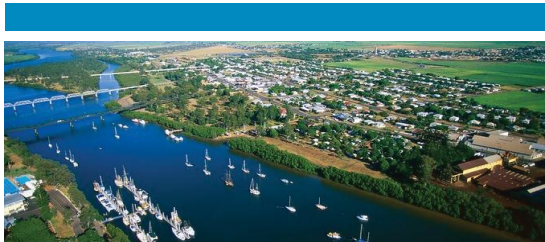
BUNDABERG Qld 4670

Applications close at 4.30pm, Friday September 13, 2013.

Selection process

The Council shall select the membership of the CRG giving consideration to their:

- **Locality** (focus areas include North Bundaberg, East/South Bundaberg, Central Bundaberg, Avoca/Branyan/Sandy Hook, South Kolan/Sharon, Pine Creek, Wallaville/Bungadoo, Goodnight Scrub)
- **Representation of stakeholders:** Ability to represent one or more of the above stakeholder groups.
- **Capacity to communicate:** Ability to communicate information from the CRG to other interested stakeholders
- **Constructive participation:** Ability to commit to working constructively and cooperatively as part of the CRG. They should also agree to fulfil their role as laid out in the Community Reference Group Charter (refer section 4 of this document).
- **Interest:** Members should be able to demonstrate interest in one or more issues relevant to the proposed project.
- **Capacity and skills to contribute:** Members should be able and willing to commit to the role and responsibilities of the CRG, and actively participate in the business of the CRG.



- **Availability and flexibility:** Members should be available and willing to meet on the agreed dates during 2013, at a mutually agreed time and venue.

Following an assessment of the individuals based on the above-mentioned considerations, the Bundaberg Regional Council, will select members to collectively represent a wide cross section of our community, including:

- people directly impacted by the floods in various locations along the Burnett River
- representatives of agencies directly involved in flood recovery
- leaders from the education and community services sector; and
- business and industry leaders.

The number of community representatives on the CRG will not exceed 10 or to Council's discretion.

If a member is unable to attend a CRG meeting or activity, a formal apology should be provided to the Chairperson prior to the meeting.

2.4 Bundaberg Regional Council and GHD Project Team

The Bundaberg Regional Council Team for the Floodplain Action Plan involves the following personnel:

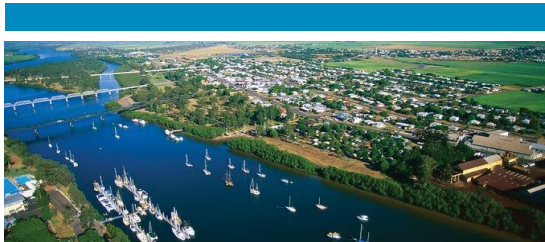
- Mayor and Councillors
- General Manager Infrastructure and Planning, Andrew Fulton
- Manager Design, Dwayne Honor
- Media and Marketing Manager, Brodie Bott.

GHD consultancy team assisting with project delivery includes:

- Senior Engineer, Ben Regan
- Stakeholder Engagement Principal Consultant, Brooke Maki
- Manager Waterways and Coastal, John Postlethwaite.

2.5 Meetings

The CRG will meet on at least three occasions before the end of 2013 and more often as determined by Bundaberg Regional Council in close collaboration with the CRG and with the independent Chairperson. If a member sees the need for additional meetings, the member can contact the Chairperson to arrange it.



CRG meeting dates, times and venues will be determined at the first meeting in consultation with all parties.

CRG meetings may involve the Council project support team and GHD technical advisors on an as needs basis or as requested to attend. It is envisaged that the CRG and the project's associated Technical Working Group (the TWG will consist of technical engineering and relevant government agency representatives) will interact throughout the duration of the development of the Burnett River Floodplain Action Plan. **See Addendum on page 9 to view a timeline summary diagram for when the CRG and TWG will meet over the coming months, in relation to the overall project.**

Meetings will be advertised to inform the community of their occurrence and outcomes published. Bundaberg Regional Council is responsible to assist in the coordination of meetings including distributing meeting agendas, minutes and reports.

2.6 Meeting Agendas

A set of standing agenda items will be developed at the first meeting based on the scope and purpose of the CRG.

If any CRG member wishes to discuss an issue at a meeting, it needs to be raised and included on the agenda.

The agenda for each meeting will be prepared by the CRG members at the conclusion of each meeting and finalised by the Chairperson and issued at least one week in advance.

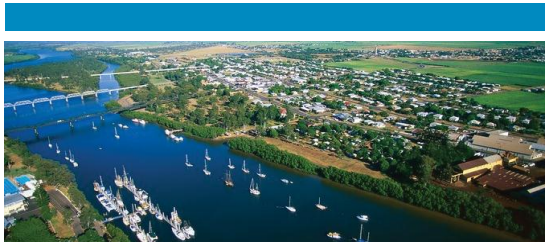
2.7 Reporting and Transparency

CRG meeting agendas and minutes will be open to the public and published on the Bundaberg Regional Council website.

Reporting will be objective and attempt to capture the views of the CRG members and the community.

2.8 Communication with the broader community

CRG members are encouraged to discuss issues and disseminate information about the project with the wider community, including special interest groups.



The CRG may seek to develop content to include in Media Releases to the media, or to adopt other approaches for public dissemination of information, however the Chairperson is to ensure the discussion is balanced and has the final veto on the media/public statement.

Only the Chairperson can act as CRG spokesperson and speak to the media on behalf of the CRG.

3. Bundaberg Regional Council support

Bundaberg Regional Council recognises that support for the CRG is imperative to its success. The Council will provide a project support team to assist the CRG process which will involve:

- Project Manager
- Administration Officer
- Communications expertise; and
- Divisional Councillors.

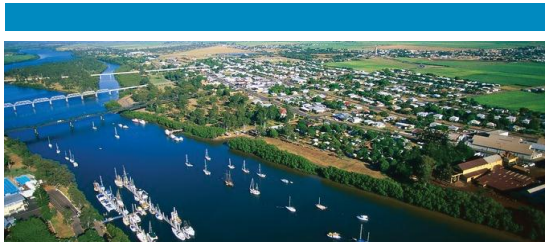
Council has nominated the CRG Chairperson to be responsible for collating the issues raised by the CRG and for coordinating a formal response.

The Council-employed project staff will commit to supporting the objectives of the CRG through:

- Regular meeting attendance as requested/required
- Recognition of the need to communicate and consult; and
- Appropriately responding to issues raised by the CRG.

Any correspondence and or project information will be provided to CRG members as soon as practicable prior to a meeting. Reports or information will be emailed, printed and posted to members.

Responses to issues raised within the CRG will be provided in a timely manner once the facts are available. Issues raised by the CRG which are of a technical nature will be referred to the project consultants to give advice through Council. Non-technical issues will be referred to Council for consideration and formal response.



4. CRG Charter

All prospective CRG members must agree to abide by the Terms of Reference (TOR) and agree to these terms prior to meeting attendance and participation. This document is not subject to alteration at any point in the future, unless agreed to by all parties (including Council).

A copy of the CRG Terms of Reference is available to any party upon request.

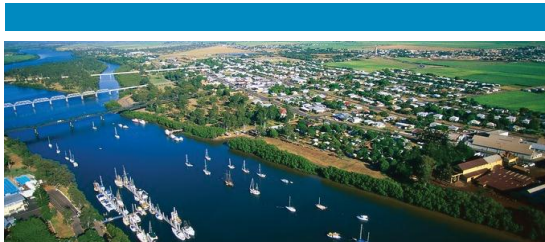
CRG members must ensure they have read and agreed with the below terms in order to be considered or accepted as a CRG member.

CRG members should be willing to and agree to:

- Attend all scheduled meetings. If you are unable to attend a meeting, the independent Chairperson should be notified with a formal apology and any comments or discussion points raised by your local stakeholder/community/group should be tabled via email, phone or letter to the Chairperson prior to the meeting
- Review CRG meeting minutes
- Verbally report to the CRG on communication activities and stakeholder concerns
- Review and comment on correspondence and/or project material
- Provide information to Bundaberg Regional Council on relevant issues concerning their local community and/or stakeholder group in relation to the Burnett River Floodplain Action Plan
- Feed information from Bundaberg Regional Council back to their local community/group; and
- Only make comments to the media or in public forums on behalf of themselves or the stakeholders they represent, not on behalf of the CRG.

Each member of the CRG commits to the following conduct points:

- Ensure any issues raised are directed at the organisations involved (e.g. Council, consultants) and not at an individual or personal level
- Respect and listen to the opinions of others, including during meetings
- Ensure issues are placed on the agenda prior to the meeting to ensure a prepared response/comment can be delivered



- Recognise that active participation in the CRG forum is crucial to the success of the group
- Any complaints regarding the process are raised in the CRG forum to enable the opportunity for resolution and/or in writing to the CEO Bundaberg Regional Council.

5. Exit Process

The Burnett River Floodplain Action Plan Community Reference Group will no longer be required once the Burnett River Floodplain Action Plan (expected to be finalised in May 2014) has been adopted by Bundaberg Regional Council and conveyed to the residents via the CRG community network.

Addendum – further project background

From mid-September 2013, Bundaberg Regional Council will seek ideas and feedback from the community to better understand what options and strategies they would like Council to consider as part of the project. This public ideas collection is supported by the dedicated, independently facilitated Community Reference Group that will be in place for the duration of the project.

In addition to the public ideas collection, technical inputs from key stakeholder organisations will be sought at critical points in the process. The ideas and feedback from the public, Community Reference Group members, and the Technical Working Group representatives will be summarised in a report and will be fed into a Multi-Criteria Assessment process later this year.

The Multi-Criteria Assessment will provide a robust and transparent tool to refine resilience strategies informed by the public consultation by assessing them against a set of agreed weighted criteria. By the end of the year, once the options have gone through the Multi-Criteria Assessment, Council will have the top five floodplain management options and strategies to take forward.

a) Multi-Criteria Assessment process

The Multi-Criteria Assessment will determine the top five options that will undergo further engineering assessment before being determined for incorporation into a floodplain management action plan.

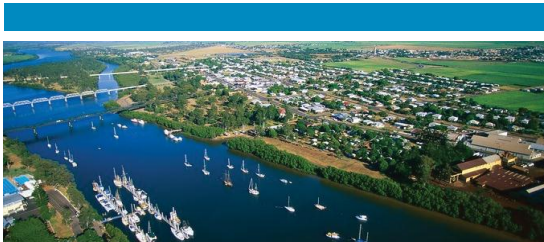
The MCA process will objectively consider options based on the feasibility, effectiveness, social, environmental and economic advantages and disadvantages of each. Council will be seeking 70%



consensus of all CRG members on the weightings given to each of these criteria before commencement of the MCA process.

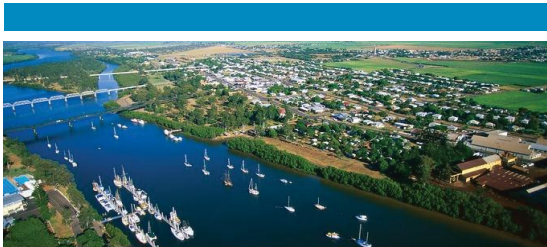
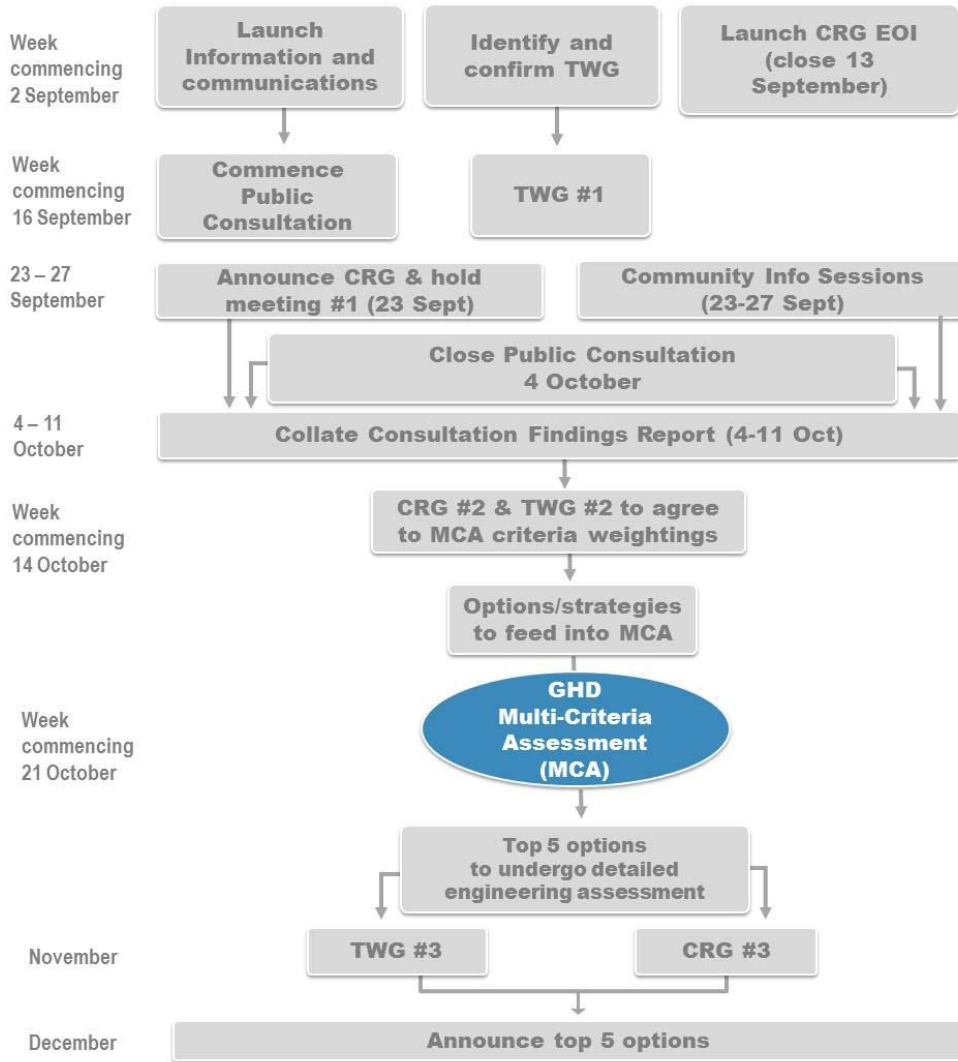
The main function and benefit of implementing this approach is that it provides a robust and transparent tool in which options can be measured and if not viable, can be discounted so that Council can explore the more viable options in a more comprehensive and timely manner.

This is an interactive approach which, with input from Council and relevant stakeholders, will provide a holistic understanding of constraints and opportunities.



b) Consultation Timeline

CONSULTATION TIMELINE



Appendix G – Questionnaire

Appendix H – Questionnaire Comments



Questionnaire Comments

1. Prevention modifications	2. Property modifications	3. Development controls	4. Response modifications
Channels to by-pass the bottle neck of the river. Dredging the river.	It would not be practical to raise the floor of my business.	Clear zoning of streets - estates that have not been affected but have limited access are identified to be able to return to homes.	If possible to contain water very important have sandbags distributed to area of North Bundaberg - Barlow Street & nearby streets instead of telling people to get their own.
We need to be protected not told we are going to lose everything again.	I would like funding and help with river bank stabilization which is getting closer to our home. Help with all kinds of suitable plants and trees to plant to help stabilize river bank.	Advise residents of levels taken of their property. I.e: inundation level taken at each garage door in the Lakes Retirement Village also what level the Tallon Bridge will close.	Siren.
Dredge river from barage to Burnett Heads. Remove Tallon bridge it is not safe, also remove sand off island. Sell sand to Gladston Concrete Company. More important Flood Gates - 1.6m in our house...so something should be done.	Need to undertake weed control before it gets out of hand.	Council free up some parcels of land like Grantham. Talk to Lockyer Regional Council Mayor - Steve Jones. Ballot aof people that want to participate in ballot nd relocation of homes.	On the North Side - loud speakers, sand bags, some official logo to use to help elevatuete the locals when in boats, put/buy some army ducks, SES office/station on the north side. After provide information for locals effected by mailbox, because not everyone buys a newspaper or listens to the radio. Why did the Rum Distillary know what streets and roads were affected but no one else did. All streets & roads affected should have had Flood Recovery unit/group contacted them, not if you need help seek them. Transport from the Southside to the northside was too slow, sometimes took 2 hours.
Dredging the river in strategic places. Remove Ben Anderson barrage.		Land use - Planning - Rezoning? New plans should include water levels for buildings. We dont need a new bridge, the people of Goodnight need educating in natural disasters. Would be handy if Sunwater would advise when they release water over the causewayall year round for traffic not just flood times.	Operational centre for Police & SES, Secure AQC site.
By-pass form gardens, deepen channel.		No more subdivisions like Mariners Cove	Need an early warning system so we can evacuate over the bridge ASAP. Warning system - eg: sirens, especially if door knocking not an option - areas cut off. SMS warnings - not affected by power cuts.
Dredgeing river, getting rid of Ben Anderson barrage.			Early warnings and ongoing information is paramount. With no power and no phone the information must come by SMS, ABC radio to keep us updated and safe. Checking BOM site IS USELESS.
Dredging Burnett River where applicable. Levee banks.			Many people in our area do not have mobile phone reception, therefore SMS warnings are of no use to us. Would suggest using ABC radio.
Dredging of the river. Remove Ben Anderson barrage. Treat problem areas eg: dredging and not spend valuable finances repairing homes & businesses over and over again.			Community awareness regarding personal affects as these can be long term. A roster system to help the community so it all doesn't come at once. It should be staggered. We were inundated with help the first few days and then nothing. Help should be spread out.
Dredge the river to let the water out, pull out the mangroves which slow the flow in areas that are narrow.			Ideas - Radio advice lagged in giving up to date info. SES need additional skills in boat use ie sensible approach to travelling in 'flood waters'.
Dredging.			Consult Hayden Walker and advise Bundaberg residents (especially at North) of his summer long-term weather forecasts.
Dredging the river below barrage to Millaquin Mill. More warning initiatives for North Bundaberg residents and communications			ABC radio station to broadcast which areas are being affected up the river and creek systems with information provided from Council and local residents (if they can contact those people to provide information).
Dredging the river from below barrage to past Millaquin Mill. More warning initiatives for North Bundaberg residents & communication of them.			
Dredging the river from below barrage to past Millaquin Mill. More warning initiatives for North Bundaberg residents & communication of them.			
Do not remove barrage because millions of tonnes of sand held back will end up down stream and cause a bigger flood down stream.			
Deeper and wider at river mouth to get water away quicker.			
Would like to see the river dredged.			
Dredge from mouth to town reach to 1942 levels.			
I wonder if dredging could be action from hydrologic and other analysis etc at least to ensure a riverbed with some size capacity for next flood is the starting point.			
Review need for so many weirs on Burnett and Kolan Rivers especially Ben Anderson barrage			
Dredging the river seems to be a practical conclusion/solution also clearing vegetation along river ie: mangroves (and now all the dead mangroves).			



Please dredge where the sand has built up in the river - before the next flood.			
Dredging and reusing the sand taken out.			
The river needs to be dredged from city reach. Feel levees wont work if not built for kms.			
Barrage removal, drainage update/completion, dredging!!! Flood gates on by-pass channels.			
Dredge flood by-pass channels. Get rid of barrage, Ben Anderson.			
Drainage culverts not enough. Levee a quick fix. Dredging only solution.			
Pull down the Ben Anderson barrage, the Walla Weir and leave Paradise to disintegrate without more repairs.			
Remove Ben Anderson dam. Dredging flood by-pass channels.			
Please flush through all drains to remove blockages in the drains which aren't visible.			
Dredging the river to allow the natural flow of the river instead of its being restricted. Removal of dead mangroves - town reach - rum distillery.			
River requires dredging from mouth to rum distillery. Impact if dam wall (Paradise) gave way during flood??? Impact if dam wall (Paradise) gave way when full but in normal conditions (sunny day)?? Remove dead mangroves. Paradise Dam independent review due 9 Aug - when are Council and public going to be privy to this information?? In event of a flood involve V.M.R, Port Authority tug & vessels to assist boaties. Cut a canal through Fairymead bend ie: McGills Road to Bartons Rd. Bugger the 'Greens' we already have enough mangrove and fish habitat.			
Why was Paradise Dam built without flood gates to be able to ease the full impact of flood waters?? Put flood gates in Paradise Dam. Destroy the Burnett River barrage. Dredge the river.			
Why was Paradise Dam built without flood gates to be able to ease the full impact of flood waters??			
Removal of Ben Anderson barrage.			
Dredging.			
Widen river mouth to let water away faster. Widen other areas of the river. Clear mangroves if this would help dredge the river.			
Widen the river mouth. Is there any way of widening the restriction adjacent to Nth B especially at bend in river.			
Dredge the river. Clear trees around river from previous flood.			
Levees need to be carefully planned so as not to just transfer the flooding to other areas.			
In my opinion, the river should be dredged to improve flow.			
Dredge the river - make it deeper!!			
Open up floodplain from North school to Queen Street.			
Environment levees are always better.			
Removal of the barrage, dredging of river. Reopening of original skyivingville mouth. Remove Harriette Island by sand mining, the island was formed by floods between 1890-1942.			
Remove Ben Anderson Barrage, dredge river where required to maximum depths, create levees where possible (planting and rocks). If funding available create bypass channel by Elliot River.			
First thing is to look at Burnett River. It needs to be dredged out not only once, on a regular basis.			
Short-term: Dredging or levees where necessary. Removal of weirs if it helps reduce peak of future floods. Long-term: Start construction of diversion canal to flood proof for future generation or remove residents from flood plain.			
Something should be done for the water to get away quicker at the causeway. Raise the bridge if possible at the Perry River.			



Post-It Comments

1. Prevention modifications	2. Property modifications	3. Development controls	4. Response modifications
Levees.		Establish long term development planning so we don't build on flood plains.	Orders to evacuate North Bundaberg should include instructions for Sharon, Oakwood, Meadowvale - as it was unclear last time.
Two major water ways (1 Tantitha Creek Drain and 2. Drain under Queen St) are blocked off now and no longer drain to Patterson's Road to help drain North Bundaberg area.		If isolated, we they have access/permission to use private property (ie Lagoon Park).	Sandbag stations in local flood affected areas because by the time the announcement regarding sandbags being available at Council was delivered by the radio, access routes were already flooded (Ten Mile Road area residents couldn't gain access to sandbags as access routes were already flooded.)
Dredging.			Improve early warning process and alarms.
Dredge river (not sure what parts – maybe all of it).			Police should be present at every evacuation centre (24 hours per day).
Currajong Bridge to be raised (from Currajong Creek, water came up Mill St into Ryan St).			No announcement about what is happening before it has been properly decided (eg levee Batchlers Rd) – it frightens everyone
Remove Harriet Island and dredge the north channel – use this sand/silt to make levee bank along North Side.			Provide bulk fuel storage (eg Givelda State School) and decide distribution quantities.
Raise the Booyal Burnett Bridge (presently only a causeway) rather than fix the two bridges over the Perry and St Agnes Rivers towards Gin Gin.			Improve broadcasting of flood information (ie. false claims of dam bursting).
			Provide evacuation maps.
			Provide earlier warnings.
			Install visual flood markers.
			Please make this information available to all residents.
			Please note that not everybody has the internet, and if they do, not everybody knows how to use it to gain access to this information.
			Flood gauge on Perry River to provide early warning to Goodnight Scrub community.
			Install and implement Early Warning System.
			Provide radio contact and central area.
			Initiate E-Health for remote areas (ie medications).
			Educate the people.

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