

# **BURNETT RIVER FLOODPLAIN ACTION PLAN**

## **COMMUNITY REFERENCE GROUP MEETING**

**TUESDAY 19 NOVEMBER 2013 – 4PM**

COMMITTEE ROOM, BUNDABERG MAIN ADMINISTRATION OFFICE, 190 BOURBONG STREET,

BUNDABERG

## **MINUTES**

### **ATTENDANCE:**

Rowan Bond (Chairperson), Kay Amsler, Helen Dayman, Rob Marshman, John Olsen, Barry Ehrke, John Lee, Jon Carman, Steve Cooper, Andrew Fulton (General Manager Infrastructure & Planning), Rob Calligaris (Council's Design Team Leader), Robyn Laing (Administration Support), Kevin Gutteridge (Queensland Reconstruction Authority Inspector) and Snr Sergeant Grantley Marcus, (QPS Liaison Officer between Disaster Management and Minister for Local Government, Community Recovery & Resilience, Hon David Crisafulli).

### **APOLOGY:**

An apology was tendered for Dwayne Honor (Council's Design Manager and Project Manager), and Mark Pressler.

### **CONFIRMATION OF MINUTES:**

**CRG MEMBERS JOHN LEE AND KAY AMSLER MOVED** that the Minutes of the CRG Meeting held on 31 October 2013 be confirmed subject to inclusion of Pine Creek in the 2<sup>nd</sup> paragraph on page 5 referring to Option 38 – Regional Bridge Upgrades and these amended Minutes be made available on Council's website.

Rob Marshman attended the meeting at 4.08pm

The motion was put **CARRIED**.

### **BUSINESS ARISING FROM THE MINUTES:**

#### Sunwater Notification – Paradise Dam:

It was agreed to note the following recommendation for the CRG Report to Council:

1. Broaden the catchment of residents they currently notify when releasing water from Paradise Dam; and
2. Further promote the warning system both for both operational dam releases and catastrophic failure.

#### Sedimentation:

It was agreed to note in these Minutes that, "a huge amount of sedimentation downstream of Ben Anderson Barrage and Bingera Weir had significantly further reduced the tidal prism thereby reducing the affect of the flushing of fine sediments from the tidal section of the river.

CRG Member, John Olsen had observed that the sedimentation and sand deposits upstream of Tomato Island is probably in the order of 1.5 metres higher than pre-flood. A number of other CRG Members commented stating they had witnessed this sedimentation.”

## **CORRESPONDENCE FROM UDIA:**

The Meeting noted that this correspondence mostly supported the current process being undertaken by the CRG. Rob Marshman stated that some members of the UDIA supported an upstream diversion channel and requested that a valuation on this option be prepared so he can provide an explanation to UDIA and ensure them that the CRG had considered this option.

Andrew Fulton (General Manager Infrastructure & Planning, Bundaberg Regional Council) attended the meeting at 4.35pm.

DAN COPELIN, GHD Flood Consultant joined the meeting by teleconference at 4.40pm.

Following discussion amongst CRG members, the Flood Consultant agreed to provide an explanation for elimination of all flood options (including the diversion channel to Elliott River). GHD Engineer, Dan Copelin agreed to provide a plan showing the route that such a diversion channel would likely take, high level costings and the size that would be required to drive flood water into it. It was noted that a very large sized channel was needed to convey only 3,000 cubic metres per second and that this option offered low benefit for the high cost involved. At the request of a CRG member, Dan Copelin agreed to provide a brief description of the output end and what that might mean for another stream or the community that lives in that area.

**With the assistance of GHD, the Meeting resolved to provide a brief explanation for excluding flood resilience options from all ideas collated in the CRG Report to Council in December.**

CRG Member, Kay Amsler referred to the Memo from GHD (dated 15 November 2013 and circulated separately to the Agenda) and the **Meeting noted that the second sentence, “*For the Givelda/Electra area, consideration needs to be given to an ‘all weather’ emergency only vehicle route through State Forest and private land in lieu of the Pine Creek Road crossing upgrades*” should be deleted from Option 39 and included in Option 38 Regional Bridge Upgrades in Table A1 - List of Options for Multi Criteria Analysis - Appendix A.** It was further noted that if the all weather access was not feasible, that this option would consider bridge upgrades.

Dan Copelin sought information from CRG members regarding the length of time these regional bridges over the Burnett River and Perry River were cut causing isolation. It was noted that regional bridges/crossings were cut for extended periods of time when flood waters from the Perry River combined with the Burnett River. The regional communities have had minimal access to Booyal Crossing during the last couple years. It was further noted that this crossing was untrafficable after releases from Paradise Dam.

Grantley Marcus left the meeting at 5pm.

CRG Member, John Bailey confirmed that Booyal Crossing had a history of flooding and required larger pipes to improve access. Andrew Fulton stated that preliminary design work had been undertaken to upgrade this crossing. **It was noted that Dan Copelin would contact Andrew Fulton regarding the preliminary design work already undertaken for upgrading this crossing.**

Steeve Cooper referred to Option 2 – East Levee and Floodgates ranked as number 1 in the multi criteria analysis. Dan Copelin briefly outlined some of the difficulties to be overcome with this option such as maintaining access to properties with the height of levee required on Quay Street East. This option also includes relocation of services and possibly land resumptions.

The matter of Saltwater Creek providing safe anchorage for boats was discussed. CRG Member, John Olsen stated that prior to construction of the rail/walking bridge across Saltwater creek, boats would tie up in Saltwater creek to provide protection against medium flooding and cyclones. This reduced safe anchorage has displaced something like 15 boats and the only area left upstream of Port Bundaberg is an area near Rubyanna behind Strathdee's (located between Fairymead Ferry and the Sailing Club - ½ km south of the residential area at the Port). The existing marina facilities do not provide cyclone anchorages. The Meeting acknowledged that the marinas were quite busy. CRG Member, Barry Ehrke stated that Skyringville Passage could be opened up to provide safe anchorage.

The application of rankings to the listed options was discussed and Dan Copelin explained that some options ranked lower even though they provided greater benefit because of the financial implications involved (ie Option 35 involves property resumptions and bridge footings). Some options did not provide increased benefits in line with rising costs.

CRG Member, Rob Marshman stated that there is a strong community argument for Option 35 (Town Reach widening – north bank) and it was noted that GHD would provide an explanation for eliminating this option.

CRG Member, John Carman stated that when the old Burnett River Bridge was built, the Burnett River was 1.5 spans wider than it is today. Reference was made to the build up downstream of Bundaberg Slipways. He suggested that the dredging associated with Option 31 (Widening at Millaquin Bend) may need to be extended. Dan Copelin advised that one of the main restrictions in the river is the land on which the Bundaberg Foundry occupies. John Carman asked if the flood mitigation works currently proposed for Bundaberg Foundry should be considered in conjunction with this study. Dan Copelin advised that it would require demolishing part of the main structure to achieve any benefit. Option 33 (from earlier GHD Memo dated 4-11-13) to widen the bank at the Foundry demonstrated modest benefits in reduced flood heights for North Bundaberg and caused adverse impacts elsewhere; hence its removal from the revised list of options.

Kay Amsler referred to the location of the Bundaberg Base Hospital and asked regarding levee options to raise flood immunity for the hospital. The Meeting was advised that many small levee options could be developed to help small areas of housing or the Bundaberg Base Hospital and that this project was concentrating on community wide options. The options to widen Millaquin Mill and dredging at the town reach will both reduce flood levels at the hospital. CRG Chair, Rowan Bond stated that people are concerned that Tallon Bridge is holding flood water back and increasing flood waters at the hospital. People are forgetting that the hospital was evacuated because the flood had impacted on their ability to deliver services and the operation of the hospital rather than evacuation of flooded hospital rooms. Dan Copelin commented by stating that the removal of Tallon Bridge in the flood model did not provide much benefit in flood

heights for a 2013 event. The removal of the abutment of the bridge changed the pattern of scouring and helped the surrounding properties only. However, Tallon Bridge may affect flood heights in a flood greater than 2013 should the flood water breach the bridge deck. During this discussion, CRG Member, John Lee tabled a photograph showing flood water swirling on the western side of Tallon Bridge.

CRG Member, Barry Ehrke commented on Option 2 (constructing a levee on Quay Street East) and stated that the benefit of this option is that the East levee would not be pushing floodwater somewhere else and that the East levee can stand alone as a flood mitigation project. However, the East levee on its own would not help anyone on the North side. It was noted that none of the levees on the North side are very good options (if not combined with other flood mitigation projects). The only levee that makes sense for the North side is Option 1 (North School hill) and this option would only offer benefit for a 2013 flood event or greater flood inundation. With regard to Option 10 (system of low level levees), whilst it would help with flooding up to a 2013 flood event, it may be detrimental in flooding events larger than 2013.

CRG Member, Rob Marshman referred to the equation of calculating the occurrence of a 100 year flood and stated that the use of terminology, 1 in 100 years or 1 in 50 years, is misleading. Dan Copelin agreed stating that whilst this terminology is used in the industry, his report will refer to probability percentages. Rob Marshman also pointed out that these options are considering peak flood heights and not flow velocities and that most damage was caused by scouring. He also raised the matter of weather patterns and whilst Dan Copelin agreed that climatic cycles influence flooding, it was beyond the scope of this project to deal with this sort of thing. He stated that a levee that is frequently topped is not something he would recommend as an engineer. Rob Marshman expressed concern regarding the complacency of the residents living behind the flood levee believing they were safe from flood inundation. Dan Copelin agreed with these comments stating that this was a significant risk. Other members commented on the merit of the North and East levee options.

With regard to Option 38 (Regional Bridge Upgrades), Dan Copelin advised that the cost of raising and lengthening bridges/crossings versus the level of protection provided for such cost would be taken into consideration. A bridge upgrade to achieve 10 year immunity along Pine Creek Road is expensive and the suggested alternative route may be a better option.

Andrew Fulton advised the Meeting that house raising (engineered to resist scouring) in Option 40 would offer some benefit.

CRG Member, John Lee felt that most of the North Bundaberg residents are prepared to rebuild but the main concern is home insurance and he asked what action could be taken to lower the risk to reduce house insurance premiums.

The probability of offering buy backs was discussed with Andrew Fulton and the Meeting acknowledged the logistical difficulties in implementing such schemes whilst CRG Members, Kay Amsler and Helen Dayman pointed out that there were a lot of homes upstream who would be just as entitled to this assistance.

Andrew Fulton stated that there was a responsibility to ensure North Bundaberg continues to be a liveable community.

CRG Members expressed preference for raising the flood evacuation route from North Bundaberg. The Meeting noted the Bundaberg Region's communities had benefited from improved education and awareness and that the information gained from this Flood Study would assist people to make better decisions and enable them to self help in future flood events.

Andrew Fulton suggested that the GHD Report include comment on the potential for Paradise Dam to be raised to provide some flood mitigation potential.

The CRG Chairman thanked Dan for his assistance and concluded the teleconference at 7pm.

### **RECOMMENDED FLOOD MITIGATION OPTIONS:**

1. Option 38 - Regional Bridge Upgrades (or alternative access routes)
2. Combination of Option 39 - Bundaberg North Evacuation Route Upgrade and Option 10 – Low Level North Bundaberg Levees
3. Option 2 - East Levee & floodgate
4. Combination of Option 31 - Millaquin Bend Widening and Option 25 – Selective Dredging
5. Option 40 - Funding for house raising/restumping
6. Option 23 - Town Reach Dredging
7. Option 26 - Removal of Fairymead levee

### **RECOMMENDATION 1:**

Council take steps to initiate an Overall 50 year Strategic plan for Rehabilitation of the Burnett River.

### **RECOMMENDATION 2:**

Council initiate investigations for the removal of Ben Anderson Barrage and Bingera Weir.

### **RECOMMENDATION 3:**

Council liaise with Sunwater regarding the release of emergency plans for a catastrophic failure of Paradise Dam and extending and improving the notification of such warnings (including operational dam releases).

### **RECOMMENDATION 4:**

Council consider river works to reopen Skyringville passage to provide safe anchorage and possibly replenish sand at Moore Park (Option 30).

### **RECOMMENDATION 5:**

Council approach the Insurance Council regarding the availability of affordable house insurance for properties within the Burnett River floodplain.

**RECOMMENDATION 6:**

Council make representations to the State Government to reintroduce compulsory flood searches when purchasing properties.

**RECOMMENDATION 7:**

Council take steps to restrict development of flood affected areas unless proven to be above flood inundation and not adversely affect flooding of other areas.

**RECOMMENDATION 8:**

Council request the State Education Department to introduce subjects in the school curriculum to teach children how to live with nature.

**RECOMMENDATION 9:**

Council undertake as its first priority, early flood warning mechanisms and evacuation plans including the successful communication thereof.

**It was agreed to provide the CRG with a copy of GHD's final report to Council.**

**NEXT MEETING DATE:**

**It was agreed to hold the final CRG Meeting in the Bundaberg Office on Wednesday 4 December 2013 at 4pm.**

This concluded the business of the Meeting at 8.30pm.