



Wagga Wagga  
City Council

# Flood Futures

## Collingullie Community Meeting

12 December 2012

Start Time: 6:10pm

Finish Time: 8:00 pm

Location: Collingullie Hall

### Main City and North Wagga Levee Upgrade – Collingullie Community Information Session

#### Councillors present:

Councillor Paul Funnell, Councillor Kevin Poynter, Councillor Yvonne Braid, Councillor Julian McLaren

#### Apologies:

Councillor Greg Conkey, Councillor Dallas Tout

#### Present:

Keith Favell – State Emergency Service

#### Council Officers:

Heinz Kausche, Andrew Crakanthorp, Vanessa Keenan, Nadine Crowley, Kate Amos, Brad Jeffrey

**Opening** Vanessa Keenan

**Welcome** Councillor Paul Funnell

**Outline of Presentation** Vanessa Keenan

**Presentation** Project Manager - Brad Jeffrey

- What is the proposed upgrade of the levees project?
- Historical flood heights
- History of the levees
- What has happened so far with the proposed upgrade of the levees project?
- What is planned for the proposed upgrade of the levees project?
- Project Funding - Since 2007 Council has been successful in obtaining funding for this project from the NSW State Government and the Commonwealth Government.

Based upon the concept designs the estimate for the project is \$18.8 Million. This includes \$11.5 Million to be spent on the Central Wagga levee and \$7.5 Million to be spent on the North Wagga levee.

- Review of Environmental Factors - Rueben Robinson  
Social, environmental and economic impacts assessed including specialist studies for indigenous and non-indigenous heritage, noise and vibration and ecology.

## Questions

### What is Flood Modelling?

We are planning for a bigger flood than 1974

The 1 in 100 yr flood has been modelled as an 11.3m river at the Hampden Bridge. The model improves flood studies that were previous done and includes over 200 flood levels taken from the 1974 flood to improve its accuracy. The model is based upon survey data accurate to within +/-0.15 metre which was taken in 2008. The modelling is 2010 data. The model itself is accurate to within +/- 0.25 metre. Brad Jeffrey.

### What impact will the upgrade of the levee have on the floodplain?

There will be an increased depth of water upstream of the Gobbagombalin Bridge as a result of the levee upgrade. The depth varies depending upon where you are located in the floodplain as well as the distance from the point of restriction in the floodplain near the Gobbagombalin Bridge. For North Wagga, there will be an approximate increase of 0.15 metre. For East Wagga, there will be an approximate increase of 0.12 metre. For Gumly Gumly, there will be an approximate increase of 0.02 metre

The natural upstream restriction of the Braehour ridgeline restricts any impact upstream of this choke point in the floodplain so there will be no impact for Oura residents or property owners upstream of the Braehour gap. Brad Jeffrey.

### How do I interpret the concept designs?

There is a fact sheet available on our website which shows you how to interpret the designs. [www.wagga.nsw.gov.au/floodfutures](http://www.wagga.nsw.gov.au/floodfutures)  
If people need assistance please call 1300 292 442 or email [leveeupgrade@wagga.nsw.gov.au](mailto:leveeupgrade@wagga.nsw.gov.au) and ask for assistance. Brad Jeffrey.

### How do I get further information?

One on one appointments can be made with a Council officer at your home or at Council by calling 1300 292 442 or emailing [leveeupgrade@wagga.nsw.gov.au](mailto:leveeupgrade@wagga.nsw.gov.au) All information is available on Councils website [www.wagga.nsw.gov.au/floodfutures](http://www.wagga.nsw.gov.au/floodfutures) Brad Jeffrey.

### How can I share my views?

Submissions will be received up until 18 March 2012. Submission can be in the form of letters or emails

Please post to PO Box 20, Wagga Wagga NSW 2650

Or email us at [leveeupgrade@wagga.nsw.gov.au](mailto:leveeupgrade@wagga.nsw.gov.au)

Vanessa Keenan

[www.wagga.nsw.gov.au/floodfutures](http://www.wagga.nsw.gov.au/floodfutures)  
1300 292 442

## Open Discussion - Comments, Statements, Questions and Answers

### Question

Don't the aerial images shown on nearmap give you plenty of information about the 2010 & 2012 flood events?

### Response

Council arranged and paid for the nearmap images of the December 2010 and March 2012 events. These images will allow us to calibrate the flood model and improve its accuracy. Brad Jeffrey.

### Question

Will the upgrade of the levee increase the flood extent?

### Response

The upgrade of the levee will only impact upon properties in the floodplain between the Braehour ridgeline and the Gobba Bridge. The flood extent does not change dramatically unless you are on the fringe of the existing flood extent and the terrain is quite flat. Brad Jeffrey.

### Question

How far after the Gap does the velocity slow down?

### Response

Below Roach's Road there will be no change in the velocity. Brad Jeffrey.

### Question

A higher river makes for a higher peak for a longer time, this will cause an artificial dam for Collingullie, have you accounted for this in your modelling?

### Response

The effect of the artificial choke is increased by the levee and will mean that the flood water takes longer to pass which means that the flood peak does last longer. Every flood is different and the time that the peak lasts depends upon the volume of water and the speed that it arrives. Brad Jeffrey.

### Question

On the model, have you got a time for the length of the peak? How long will it stay around?

### Response

I'm not sure off the top of my head how long the peak lasts. I will need to take a look at the model and get back to you on that question. Brad Jeffrey.

NOTE: According to the model, the peak lasts for 4.5 hours, when the river reaches 11.3m (a 1 in 100 year flood height) at the Hampden Bridge gauge, it takes 4.5 hours for the flood level to start dropping at that location.

### Question

Have you modelled the weir at 1.5m?

### Response

Any changes that take place in the floodplain affect the flow of water, its depth, direction and velocity. The model would show the weir as it was in 2008. If there have been any changes to the

operating height of the weir we can include that in the revised modelling. Brad Jeffrey.

### Question

Marked flood levels of Collingullie and Wagga, 1m in Wagga = 1m in Collingullie, can we assume that we can add the same amount to our levels and project what the level will be here?

### Response

Because every flood is different in its volume and velocity it isn't really a good practice to rely on a rule of thumb such as that. Using the model we can provide you with a modelled peak height for your property. Please indicate whether or not you would like to have a one on one meeting with a Council officer on the attendance sheet. Brad Jeffrey.

### Question

Have you done any modelling with no levee upgrade? At the moment a 1 in 100 means no water through my house, doesn't the upgrade mean more water?

### Response

We don't have a before model for below the Malebo Range. The modelling that has been done indicates that there is no impact downstream of the Gobba Bridge as a result of the upgrade of the levees. Brad Jeffrey.

### Question

Malebo choke, won't that back more water up? There is no cap on the range, so more water will try to come up and through the Gap. How can that mean no more water through?

### Response

The reason why there is no impact downstream of the Gobba Bridge is because a larger volume of water (as a result of the levee upgrade) needs to pass through a smaller gap (the Gobba Bridge choke point). There is a slight increase in velocity at the choke point because there is an increased amount of pressure. It is like holding your thumb on the end of a garden hose. You are restricting the amount of water coming out and increasing the pressure. But when you do restrict the hose there is less water getting through. Brad Jeffrey.

### Question

Regarding the inputs in the model, where do the inputs for the model come from? And are inputs from other areas included in the model?

### Response

The model is based upon 150 years of rainfall data and includes inputs from all major and minor tributaries along the river. Downstream agencies use the inputs from our models and we use inputs from upstream models from other Councils. Brad Jeffrey.

### Question

Does the model take into account 2010 Eucumbene and environmental flows? The environmental flows make the flood worse for Collingullie by prolonging the flood length?

### Response

The upstream storages including Burrinjuck and Blowering are managed by two separate organisations being State Water and Snowy Hydro. The Burrinjuck Dam provides downstream irrigators

with water for crop production whilst Blowering Dam, Talbingo Dam and Eucumbene Dam are used to produce electricity. None of these dams have a flood mitigation capacity included in their current management practices. Keith Favell (SES).

The environmental flows are not included in the modelling. Brad Jeffrey.

### Question

Can't Council say no to the environmental flows?

### Response

No. Heinz Kausche.

### Question

At what point does the SES say enough with the releases, they are impacting on communities?

### Response

The SES would like a reduction in the amount of the flow, our priority is protect life first, and when in doubt evacuate. A request has been made to the Office of Water to give advanced warning of when an environmental flow is likely to occur. Keith Favell (SES).

### Question

In March 2012 both dams were close to 100% capacity, we've asked exactly how much environmental water is kept there. Doesn't the increase in the height of the levee mean the potential for increased environmental flows? There needs to be better communication from the State Government to both the communities downstream of the dams and the local Councils.

### Response

The environmental flows are usually released on the back of a large flood but they will not increase the height of the peak, they will prolong the flood event. Brad Jeffrey.

### Comment

In the MDBA document, there is a statement lifting the controls and increasing the environmental flows. Two years ago David Harris attended a meeting with the Office of Water and we were told to 'deal with it'. There has been a change in terminology by the Office of Water, the change from Irrigation Releases, to Environmental Flows. Is it a coincidence that the Federal Government is contributing to the levee upgrade and now want to increase the levels of allowed environmental flows?

### Comment

During the 2012 event, the dam height readings were not being updated on the internet.

### Question

Is there no mechanism to stop the environmental flows? Is there no way to talk to the people who control the releases? We shouldn't just be talking to the bloke that opens the gate!

### Response

The Government states that the dams are solely irrigation dams and not to be used for flood mitigation. Keith Favell (SES).

### Question

Has the worst case scenario of an uncontrolled flow been modelled?

### Response

Yes we have and it's called the Peak Maximum Flood or PMF. Brad Jeffrey.

### Question

What will happen to the city if the levee is upgraded and we get more than a 1 in 100 event?

### Response

There is a spillway designed in the concept designs that will allow the city to slowly fill with water in a controlled manner. This is to prevent a catastrophic failure of the levee which would result in catastrophic damage to infrastructure. Brad Jeffrey.

### Question

If the water runs into the city at 11.3m why not run the model at the actual height of the levee at 11.7?

### Response

We can't model using the freeboard height of the levee, we cannot rely on the freeboard for protection as the levee design level is the height at which it is certified. Brad Jeffrey.

### Question

But can't you hold back an 11.7m river with the upgrade to the levees?

### Response

Yes, the spillway is 400mm about the 11.3m river height. However, we cannot include that 400mm as part of the protection level. Brad Jeffrey.

### Question

When looking to purchase a property for my daughter in Central Wagga, I looked for a reference to it being in flood prone land but couldn't find any. Is this the case?

### Response

The identification of floodprone land is made on the best available information available to Council at that time and is updated according to the most recent modelling. Council is also working though the process of identifying properties which are impacted by major overland flood flows in the urban area including the CBD. Heinz Kausche.