



Wagga Wagga  
City Council

# Flood Futures

## North Wagga Community Meeting

**29 November 2012**

Start Time: 6:10pm

Finish Time: 8:00 pm

Location: North Wagga Hall

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

#### Councillors present:

Mayor Rod Kendall, Deputy Mayor Andrew Negline, Councillor Dallas Tout, Councillor Yvonne Braid, Councillor Garry Hiscock, Councillor Julian McLaren, Councillor Kevin Poynter, Councillor Alan Brown

#### Apologies:

Councillor Greg Conkey

#### Present:

James McTavish – State Emergency Service

Reuben Robinson – GHD Pty Ltd

Council Officers:

Phil Pinyon, Heinz Kausche, Janice Summerhayes, Andrew Crakanthorp, Craig Richardson, Lindsay Tanner, Luke Grealy, Geoff Veneris, Brett Koschel, Vanessa Keenan, Belinda Maclure, Kate Amos, Brad Jeffrey

**Opening** Vanessa Keenan

**Welcome** Mayor Rod Kendall

**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 - Reuben 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 North Wagga?

There will be an increased depth of water 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. 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)

8:00pm Close - Laurie Blowes reinforced importance of making submissions 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

### Comment

Received information from Council in the mail several weeks ago – was excited about the levee upgrade - but disappointed when heard the levee upgrade will only be 1 in 20, why only upgrade to a 1 in 20?

### Response

Council resolved in 2009 to look at the feasibility of upgrading the North Wagga levee to a 1 in 20 year level of protection and the levee protecting central Wagga to a 1 in 100 year level of protection. The purpose of these information sessions is to inform the community about the project as well as listen to what the community has to say Brad Jeffrey.

### Question

How much has Council looked at history in designing this levee? Example – in 1972 Mayor Dick Gorman was told by Canberra engineers floodwater will come around the back? Exactly what happened in March. Hampden Bridge was built at that height because engineers consulted with Indigenous and Chinese market gardeners who pointed out river flood heights.

### Response

Council's flood modelling is calibrated using over 200 survey points in the flood plain which were taken after the 1974 flood event. The model also includes the information from previous flood studies so that historical information is taken into account.

The aim is to continually improve the flood model so that we have information that is as accurate and as up to date as possible. The flood model does show that the flood water does flow around the north of North Wagga from both the east and the west. Brad Jeffrey.

### Comment

Several years ago it was Council policy to clear shrubbery on North Wagga flats – numerous trees washed there in 2010 flood – asked Council if we could have a working bee to clear – was told quiet clearly shrubbery must be left there for environmental reasons – is there any way we can clear that shrubbery?

### Response

This particular question was posed to Council when we were in the middle of the modelling. As a result Council included scenarios within the model to look at the impact of vegetation in the model. One of the scenarios includes a 300m wide strip that would be cleared.

The modelling indicated that vegetation on the floodplain, particularly between the North Wagga and Main City Levees has minimal impact on depth or velocity.

Council has however included in its current Floodplain Risk Management Plan a recommendation to develop a vegetation management plan for the river banks and lagoons. Brad Jeffrey.

### Question

What happens between now and construction of levees?

### Response

If we were to experience a flood between now and the proposed upgrade for the levees then we can only learn from our experiences of 2010 and 2012 and improve our emergency response to such an event. Brad Jeffrey.

### Question

After 1974 levee upgrade – I understand the North Wagga levee was to hold out a 32 ft 6 inch flood – if we raise the levees on both sides won't that cause more problems?

### Response

The proposed upgrade of the North Wagga levee is to provide a 1 in 20 year level of protection which is equivalent to a 10.0m river measured at the Hampden Bridge gauge.

A freeboard of 750mm is also proposed as part of the upgrade of the North Wagga levee. Brad Jeffrey.

### Comment

What advantages are there to the 2 levees between Parken Pregar and Wiradjuri - what was point of those? There are only two places for water to get through, Parken Pregar and under Wiradjuri Bridge. If you cut off that access with a bigger levee it will push water through much harder.

### Response

The levees along side Hampden Avenue were constructed prior to the 2010 flood event to provide North Wagga residents with more time to evacuate and take their possessions.

After the 2010 flood, Council modelled the impact of the two levees and there was minimal increase in depth caused by the levees. Brad Jeffrey.

### Question

What investigations have been made for alternative protection for North Wagga? For example raising houses above flood level?

### Response

To date there has been no investigation into other options such as voluntary purchase or house raising. The purpose of developing the concept designs is to provide something that Council can discuss with the community. It is really up to the community to voice their opinions so that Councillors can act in the best interests of the community. If other options such as house raising or voluntary purchase are what the community want Council to look at, then this should be the basis of submissions from people. Brad Jeffrey.

### Question

How much control do we have over discharges from Burrinjuck and Blowering Dams?

### Response

At the moment our control over how the upstream water storages are managed is minimal. However, discussions are being had with both State Water and Snowy Hydro about management strategies to better assist downstream communities during flood events.

Most of the water during large flood events comes from Burrinjuck Dam. However in March 2012 there was a large inflow to the Murrumbidgee River from the Goobragandra River upstream of Tumut and separate to the water storages altogether. James McTavish – SES.

### Question

After 2012 flood – we had an SES survey – has Council used this info?

### Response

The firm that the SES engaged to perform the investigation following the 2012 flood event also happen to be the same firm that has produced all of Councils flood models to date.

It is Council's aim to utilise the information collected to calibrate and further improve the modelling. Brad Jeffrey.

### Comment

In 1974 the Council was given 740,000 pounds to clear vegetation below the bridges – but as far as I know never been done. Why don't we get the politicians here to see work needed otherwise sue the Government.

### Comment

In 1974 they added 10 metres to Burrinjuck Dam to give air space.

### Response

The Burrinjuck Dam wall has been modified since 1974, however, the extra capacity of the dam does not include a contingency for flood mitigation. James McTavish - SES.

### Comment

Are Council representatives going to assume the finances for the upgrading? – please put on note that in no way will North Wagga's levee banks be excluded in any way in representation to Government bodies. Plus the consultants who have quoted \$18 million were they involved in Wagga City Baths?

Council still allows building at ground level in CBD – should review that – especially low part – Wiradjuri, Kincaid Street etc. Also can Council confirm they are asking for a grant not a loan?

### Response

It is more than likely that the estimate for this project will increase once we start producing detailed designs.

The consultants engaged by Council to produce the concept designs are the NSW Public Works who are the recognised experts in design, construction and maintenance of levees in NSW. The estimates are based upon realistic quantities and prices and they also include a component of contingency.

Council does currently allow development to occur in Central Wagga at ground level despite the fact that our modelling indicates that they are flood prone. Council are currently reviewing this practice. Council's current plan to finance the project relies heavily upon funding from the State and Federal Governments. Brad Jeffrey.

### Comment

There used to be 20% air space in those dams.

### Response

This statement is incorrect. Neither Burrinjuck nor Blowering Dams have any contingency for flood mitigation built into their operation. James McTavish SES.

### Question

What about Eucumbene? Why can't it hold a bit more?

### Response

Eucumbene Dam is at the top of the Snowy Mountains Scheme and therefore has limited impact upon the volume of water coming down through the mountains. Eucumbene Dam has rarely been full to capacity. The difficulty we face is dealing with 2-3 shareholders being the NSW, Victorian and Federal Governments and it also should be noted that these three entities also share costs of floods too. James McTavish SES.

### Comment

Experienced four floods in North Wagga. We talk about 1 in 20 or 1 in 100 – but they can happen anytime – we could get another flood before Christmas. The levee upgrade should work on the 1974 level with a little bit to spare.

### Response

What we are trying to plan for is a flood that is significantly higher than the 1974 flood height. Brad Jeffrey.

### Question

What impact does the levee upgrade have on a build up of water upstream?

### Response

Flood water depth will increase in the flood plain as a result of the upgrade of the levees. The increase in depth varies depending upon where the location is in the floodplain. The closer you are to the Gobbagombalin Bridge, the greater the depth increase.

North Wagga will be impacted by and additional 0.15m, East Wagga an additional 0.12m and Gumly Gumly and additional 0.02m. Brad Jeffrey.

### Question

What are chances of shaving a bit off sides of Malebo hill?

### Response

The chance of that happening is very limited. But if you want to include that in your submission you are more than welcome. Brad Jeffrey.

### Question

I live at Wiradjuri – if the levee is raised here, will it make flooding higher at my place?

### Response

If you live inside the Main City Levee at Wiradjuri, you will be protected from a 1 in 100 yr flood event.

If you live outside of the levee at Wiradjuri you will be impact upon as a result of the upgrade of the levee depending upon exactly where your property is located. Brad Jeffrey.

### Question

For those who would have extra water in their place as a result of levee upgrade – would Council consider applying for a grant so all homes affected in floodplain might be able to raise their homes?

### Response

This option has not been considered to date. However, you may like to make that suggestion in your submission. Brad Jeffrey.

### **Question**

Is there consideration for an upper limit of levee height - especially the town levee? The higher it is, the more water it'll push into North Wagga.

### **Response**

The proposed design height for the Main City levee will provide protection against a 1 in 100 yr flood event or equivalent to an 11.3m river measured at the Hampden Bridge gauge.

The proposed concept design also include a 900mm freeboard component.

The impact has been modelled as being 0.15m on North Wagga  
Brad Jeffrey.

### **Question**

What is the possibility of Council walking away from the whole lot? People have to realise there's an element of risk wherever you live.

### **Response**

It really depends upon what feedback we get from the community. There is the possibility that Council will elect to do nothing and leave the levees as they are. Brad Jeffrey.

### **Comment**

We live in section 11 – when the river came up, the water flowed into Parken Pregar and came around past the Black Swan Hotel – since the levee went up water now banks up more at Parken Pregar

### **Response**

Every flood is different. The amount of flood water, the time it arrives, even the colour of the water will be different with each event. There have been a lot of changes in the flood plain since 1974. North Wagga did not even have an entire levee protecting the town in 1974. Brad Jeffrey.

### **Comment**

Spending \$7.5 million in North Wagga isn't strategically sound if North Wagga is still impacted, does it make sense to do it?

### **Response**

The reason we are seeking comments from the community is so that Council can make an informed decision about how to proceed in the best interests of the community. The opinion on whether it is economically responsible to spend \$7.5 million on North Wagga will vary, depending upon where you live in the flood plain. Brad Jeffrey.