



MR PETER ORMEROD



27 November 2011

Cr Paul Pisasale
Mayor
Ipswich City Council
P.O. Box 191
Ipswich, QLD 4305

Queensland Floods Commission of Inquiry
P.O. Box 1738
Brisbane, QLD 4001

Dear Sir,

Please find enclosed a simple submission demonstrating the effective results Cessnock City Council in NSW has had with its flood mitigation, which has significantly reduced the repeated damage from flooding waters within the city due to its many creeks and drainage issues from the surrounding mountains.

It is fully appreciated this simplified submission can become over complicated with local scientific analysis and 2011 legal debate. However, the idea was to attempt to convey/remind of the fundamental basics, and that it will most likely be a combination of multiple sited projects / activities that will reduce the future flooding threat within the city of Ipswich and not a single big project like a Bremer River dam.

Also enclosed is a CD containing soft copies of the photographs and the correspondence.

Finally, while this submission may be too late for the Board of Inquiry's formal cutoff dates, it is trusted the demonstrated concepts will be actively added to the war chest of constructive options.

I look forward to announcements regarding the commencement of works to reduce the future flood threat to the City of Ipswich.



P.W ORMEROD

ENCLOSURE: JANUARY 2011 IPSWICH FLOOD SUBMISSION DATED 26 NOVEMBER 2011

JANUARY 2011 IPSWICH FLOOD SUBMISSION

To Whom It May Assist,

Introduction

Regrettably along with many other people, being an owner of a Unit within the Ipswich Unilink Village at 191–199 Warwick Road Churchill I have been flood affected. However, in an attempt to assist in being part of the solution, I would like to offer two very simple ideas that my local council, Cessnock City Council NSW (CCC) put in place many years ago.

While I acknowledge these simple ideas will not totally resolve the Ipswich City flood predicament, every bit of water volume mitigation has got to help individual creek regions from adding to the inner city collective flooding situation.

Such as Deebing Creek and the Unilink Village which has a ground level of about 19 to 19.2 meters. This is just below the Ipswich flood water level that was understood to be 19.5 meters.

Instead of having about 30 to 50 centimetres of flooding water, the unrestricted inflow of water to the 'Unilink Village dam' site made the water level rise an additional 3 meters approximately (22.5 meters). This caused flooding up to the Top Floor level of the Unilink buildings.

These two simple but effective CCC flood mitigation concepts work hand in hand and are:

- a. Concrete lined creek system throughout the town (constructed in about the 1930's.), and
- b. "The Basin", which was constructed on only one of the smaller creeks just out of town in about 1978.

In February 2011, I asked CCC for a "Concept of Operation" plan or similar document, for "The Basis", to attach to this submission, but was finally advised that such documentation was still in draft form (since 1978?) and was currently with the State Emergency Service for review.

Also in February 2011, Cessnock City Councillor's made local newspaper statements, (simplistically put) that they would offer any non-financial assistance possible to the flood disaster or to the Local Council Association. So I trust you will be able to obtain "The Basin" plans etc either directly from CCC or via the Local Council Association.

The Situation at Unilink Village, 191-199 Warwick Road, Churchill – A Simplified View (An Inner Ipswich City Location)

- First, it is understood that the official Ipswich City Flood level for the January 2011 event, as measured at the City Centre Bremer River site was 19.5 meters.
- The Ground level next to the Unilink Village main Administration building is approximately 19.1 meters.
- So an extremely basic simplistic view is the water level at the Unilink Village should have only been about 40 cm deep.
- Instead the flood waters rose some additional 3 meters.
- The Unilink Village is located near Deebing Creek.

This situation raises a couple of simple questions to seek local solutions.

Why was there an additional three meters of water?

How can this be mitigated against in the future, being so close to the city centre?

Asking these ‘smaller picture’ questions intends to keep my submission succinct and to offer a ‘smaller picture’ solution.

This is certainly not intended to ignore or diminish the absolute tragic suffering of many nearby communities, and the increased scale of devastation they had to confront from the Wivenhoe water sources. For these ‘bigger picture’ solutions, am sure the Board of Inquiry will address.

Why was there an additional three meters of water?

This question appears to have some rather simple answers.

- Permitted Inflow is greater than Outflow.
- There was an Outflow ‘temporary dam wall’ effect created, that ensured the water backed up three meters higher than just ‘around the corner’ at the official measuring gauge.

How can this be mitigated against being so close to the city centre?

Here in Cessnock NSW, an extremely basic idea, nicknamed “The Basin” (known as “Mount View Park”) has been created just out of town along Mount View Road. “Mount View Park” is just across the road from the Mount View High School. Refer to the attached Cessnock street directory map at Annex A and Google maps for an accurate satellite view.

As I understand it, since the installation of “The Basin” in about 1978, overall Cessnock has pretty well been spared the wider spread flooding previously experienced along many of its creek systems.

(Please note, “The Basin” is located on just one of the smaller creeks feeding into Cessnock. And it has made this big difference.)

Just to the west of Cessnock is a mountain range that swings around and joins on to the Watagan Ranges further to the south east. This mountain range arc of approximately 130 degrees generates a large amount of collected water run off that flows into many creek systems, some of which flows through and around Cessnock.

During periods of prolonged rain, instead of Cessnock town itself becoming the temporary ‘jamming dam wall’ from the inflowing water from the mountains, “The Basin” acts as the ‘temporary dam wall’, by filling up with water. While a single “Exit Pipe” controls the fixed outflow, to the town’s concrete lined creek water courses.

“The Basin” is approximately only 350 meters wide by 400 meters long by 8 meters high (Height is on the Cessnock town side) and acts as a local shock absorber for the mountain water runoff.

During the remainder of the time (when not raining), “The Basin” continues to serve the community by being a “sports field”, that holds several football, soccer, and cricket pitches etc. This is a fantastic dual purpose.

Following are some photographs (taken in February 2011) that do not truly do “The Basin” full construction justice. Hopefully the photographs can still tell the story.



Entry to “The Basin” (Mount View Park) Sports Fields



Some of the sports fields within “The Basin”



The approx. 8 meter high wall on the Cessnock Town side of “The Basin”. Near the water Outlet.



Looking North towards the Outlet Corner



Next to the Outlet Pipe. Slope of the Eastern side



The creek (& other drainage) during 'the dry' inside "The Basin".



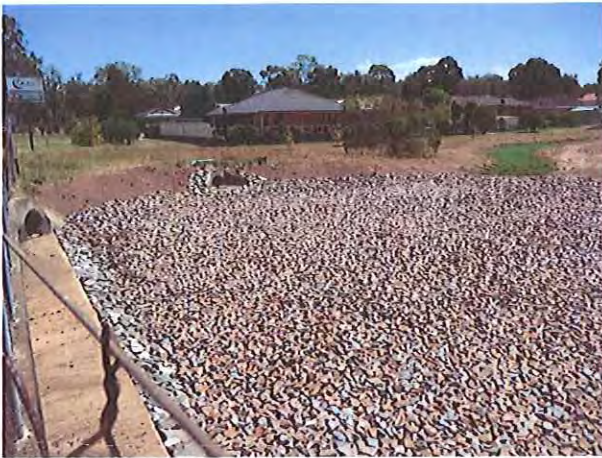
The Exit Outlet Pipe area.
Note the two Water Depth Markers.
The Left Marker measures 2-4 meter deep water.
The Right Marker measures 0-2 meter deep water.



Exit Outlet Pipe. (0-2 Meter Depth Marker)



"The Basin" Outlet
Note The Truck & Car driving on Mount View Road.



On the other side of Mount View Road looking towards Cessnock Town.
(Note the houses. The old Golf Course is currently being redeveloped into a new Housing Estate)



Coming From "The Basin"
Concrete lined creek coming into Cessnock.



Opposite direction. Going towards Town.
(Note the buildings up to the creek edge.)

So how could these two simple but very effective crude concepts be of benefit to inner Ipswich city?

Well, let's see the above in operation. Fast forward to 26 November 2011, after several days and nights of persistent rain.

Many of the following photographs have been taken from the same locations.
Remember this is the result of just ONE Basin, on just ONE of the smaller creeks that feeds into Cessnock.

26 November 2011 After Several Days of Persistent Rain



The Exit Outlet Pipe area.
The Left Marker measures 2-4 meter deep water.



Note the two Water Depth Markers.
The Right Marker measures 0-2 meter deep water.
(now reading 1.5 meters deep)



Still plenty of 'shock absorber' capacity to store heaps more water
Not to mention the volume of water already efficiently evacuated though Cessnock.



"The Basin" Outlet

Note The Vehicles still driving on Mount View Road completely unaffected by the potential flooding water (if not for "The Basin").





On the other side of Mount View Road heading towards Cessnock Town.



Inbound Water

Concrete lined creek / drainage coming into Cessnock.

(Note the buildings up to the creek edge. "The Basin"+ concrete drain = Confidence from flooding.)



Opposite direction. Going towards Town.

I trust the above 'Dry' and 'Wet' comparison demonstrates, how these two simple very effective concepts can be of benefit to Ipswich City even if "The Basin" concept is only installed on just some of its smaller creeks and Bremer River systems. For example, the Deebing, Purga and Warrell Creek systems.

Yes. In the upper outer regions of the Bremer River and its feeding creeks, there may need to be 6 or more of these "Basins" required as cascading 'dams' to 'delay' the excess water volume inflows from reaching the centre of Ipswich City all at the same time, where the city becomes the temporary dam, due to the 'backing up effect' from the larger Brisbane River system.

My memory is definitely fading of the Ipswich terrain topography and existing infrastructure. But a couple of options for an inner city Deebing Creek "Basin" (without the immediate need for concrete lined channels) may be:

- a. Upstream, across Warwick Road there is some space. There is a Golf Driving Range, which then goes up into the Mary Evans Reserve. This Reserve also appears to have a large swamp grounds area that maybe suitable to be enclosed on three sides. (Understand a Reserve typically is left untouched, but a Flood is an extreme situation to address. Further a "Basin" concept around a large natural swamp area effectively compliments a swamps purpose.)

- b. Further up Deebling Creek, on the other side of the Cunningham Highway, it is still bush land. Maybe a dual purpose Sports Field would be appreciated by the growing local community in that area.

(Thinking (and acting) outside the standard square must be permitted to explore all options. As a 'step by step' approach is needed to protect individual local communities from future extreme flood events.)

Concrete Lined Creeks and Drainage

On the surface it can be argued that there is a reduced case in Ipswich for concrete lined creeks and drainage. Cessnock is lucky in that it does not have as large a water exit issue as the big Wivenhoe / Brisbane River system slowing the apparent water exit rate.

Providing Cessnock can rapidly evacuate the amount of Inflowing water, there will be no 'localised areas' within the city, where the Inflowing water level raises an additional 3 meters above the terrain (such as happened at Deebling Creek and the surrounding Unilink Village valley area).

However, by having such a concrete lined drainage system (an unimpeded water flow course) assists in efficiently removing the 'earlier water' through and out of the city, before any 'later' inflowing water, coming from the controlled exit flow rates from any upstream "Basins" during the peak times of the flood.

What I am trying to convey is every single bit of even 'small scale' water transfer efficiencies through town contributes, before, even during, and after, the apparent overwhelming water point is reached.

And yes if a really good job is done along Deebling Creek, then some water may flow back up Deebling Creek from the Bremer River direction. But at least this has increases the 'volume' space available for excess water thus overall reduces the total flood level. (This symptom, would indicate additional work would be required along the Bremer River and its creek system.)

Conclusion

Excluding the Wivenhoe / Brisbane River water flow complications, clearly continuing to do effectively nothing along all these other Ipswich water systems, is not an option for the future reputation of the City.

Further, it is most unlikely there will ever be just one simple big fix for the City of Ipswich (e.g. a Bremer River dam). So a combination of many smaller scale fixes will be needed to protect various pockets of the city from future flooding damage. This in turn will collectively reduce the inner city flood levels.

Trust this submission assists future planning, with the sincere desire it:

- a. Has demonstrated a very simple small scale concept (which is readily repeatable around many creeks).
- b. Contributes towards actual prevention action.
- c. And that other Inner Ipswich City property owners currently at risk, in the near future will have a nil or much reduced level of flooding threat.

Yours sincerely

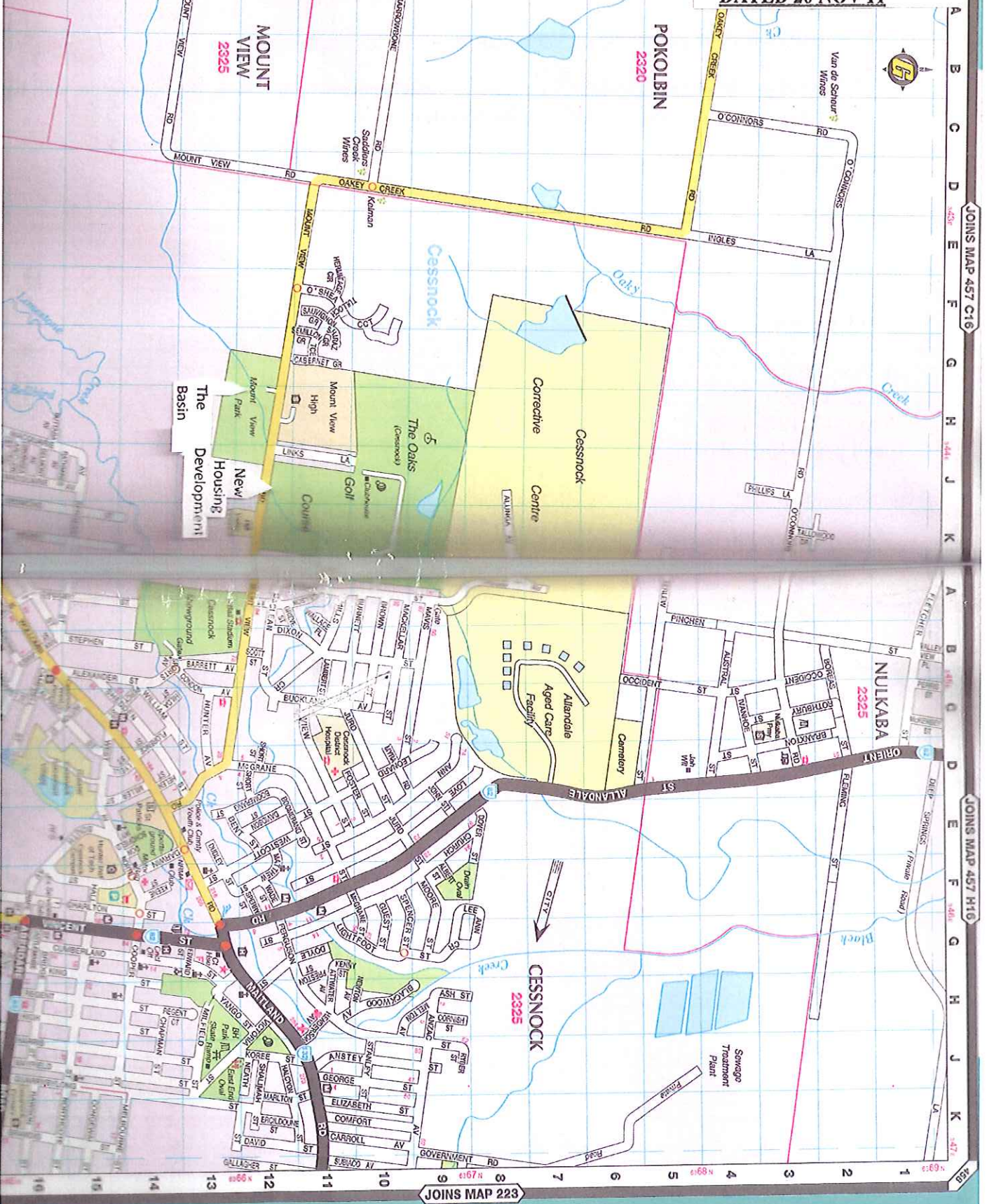
Peter Ormerod



26 November 2011

Annex A: Cessnock Street Map (Showing "The Basin" and the Downstream Creek System.)

**ANNEX A TO
JANUARY 2011 IPSWICH FLOOD SUBMISSION
DATED 26 NOV 11**











m
4
3.8
3.6
3.4
3.2
3
2.8
2.6
2.4
2.2

2























OAKS
VICTORIA BITTER























