

# SUBMISSION TO AUSTRALIAN GOVERNMENT PRODUCTIVITY COMMISSION

## Submission from Malcolm Styles, Engineering Management Styles

### 1. Background

Malcolm Styles conducts a small civil engineering consultancy that for the last six years or so has specialised in provision of relief for Directors and Managers positions in local government particularly in regional Victoria and southern NSW. Malcolm is a Chartered Professional Engineer, Fellow of Engineers Australia, included in the National Professional Engineers Register, and a Fellow of the Institute of Public Works Engineers Australia (IPWEA). Malcolm has had many years' experience as a practising municipal engineer employed in local government in Victoria including some twenty years at senior director and Deputy CEO level. Malcolm is the IPWEA(Vic) representative on the Victorian Flood Warning Consultative Committee.

During the disastrous periods of storms and floods that occurred in Victoria during September and November 2010, as well as January and February 2011 and again in February 2012, Malcolm was in a position to observe first-hand the consequences, and of a number of attempts by small local councils to recover particularly the road and associated drainage infrastructure. Malcolm was also engaged by Mount Alexander Shire Council to initially document the extent of road infrastructure damage, and later to lead the co-ordination of recovery (from February 2012 until completion) for the council.

Malcolm has written and presented papers about these experiences to the International Public Works Engineering Conference held at Darwin during August 2013, and recently to the 54<sup>th</sup> Floodplain Management Association Conference at Deniliquin NSW 20 – 23 May 2014.

Malcolm has organised in conjunction with IPWEA(Vic) a practitioners workshop to be held at Bendigo on 26 June 2014 which will seek improvements to the approaches used by local government councils in Victoria that have to deal with significant infrastructure recovery works. Malcolm, together with IPWEA (Vic) would like to share the results of the workshop, once completed, with the current Commission of Inquiry, because the information may well be an invaluable insight for the Commonwealth government in the effectiveness and sustainability of Australia's natural disaster funding arrangements.

## **2. IPWEA Workshop at Bendigo (26 June 2014)**

The workshop will be discussing the following:

To identify and list good practice examples and ideas that dealt or will deal with-

1. The emergency responses and immediate emergency works;
2. How to clearly and unambiguously identify and document damage to road and associated infrastructure damage, short and longer term. (This will also necessitate discussion about resilience, betterment, and benefit cost parameters);
3. Procurement issues when undertaking recovery that affects a number of council areas at the same time, and the use of external contractors as well as consultants versus other models that provide for the use of council staff and crews;
4. Assignment, prioritisation and control of works. This will include discussion about scoping of proposed works and discussion of contractors estimates/quotes, third party audits, innovation in recovery, and possibilities about regional contracts for recovery;
5. Reporting, and claims (inclusive of cash flow issues, reconciliations, estimates and actual costs), liaison with State government Department of Treasury and Finance staff, and reporting/informing the affected local communities about decisions made of recovery and the reasons behind them; and
6. Liaison with other authorities, inclusive of how to streamline permits for works on waterways, locating other authorities assets situated on road reserves, demarcation of Road authorities jurisdiction and issues causing delays to recovery and impacts upon local council infrastructure caused by works – and inaction – by other authorities.

An awareness of this inquiry will be provided to the Workshop participants as part of the introduction to the Workshop.

Malcolm is seeking an opportunity to submit the results of the above workshop to the Commission of Inquiry, which he hopes could be forwarded during early July.

### **3. Some comments about the discussion paper**

(a) Small rural and regional councils in Victoria, because of their extremely restricted sources of revenue, will be unable to meet any (if suggested) one third of the costs associated with infrastructure recovery after a natural disaster. As an example, under such a directive, Mount Alexander Shire Council, with a total population of some 18,300, would have been required after the four storms and floods of 2010 to 2012 to find \$7,333,333 or over \$400 each for every single soul in the municipality to meet just the costs of infrastructure recovery. A fairer suggestion would be to seek a threshold commensurate with a reasonable percentage of the average of the previous three years of total rates, fees and charges income from individual councils.

(b) The balancing between the benefits of investing in mitigation and resilience measures, and the (current) difficulties in being able to provide for capital costs of such investment as well as recovery of expensive infrastructure at short notice will require further discussion and modelling by those dealing with response as well as recovery. Lateral thinking in the past has not been encouraged about resourcing spreads between individuals' insurance premiums, the capacities of funding by the three levels of government, and possible other means of providing funding resources. Optimisation of benefits and costs has never been a simple exercise, and the "rules" applied to the use of Natural Disaster funding during recovery appear to stifle any desire to achieve such optimisation.

The discussion paper (pp 5-6) outlines a strategic overview as to how optimisation might be achieved. Nevertheless, at the coal face where investigations and documentation of the damage is being recorded, there has been little guidance about using a risk management model in the effort to achieve value for money reconstruction of the local road and bridge networks.

(c) Although "betterment" provisions were in place during the natural disasters recovery periods referred to in Victoria above, an example where the one instance that Mount Alexander sought "betterment" contribution for an improvement to the replacement of a floodway highlighted the bureaucratic difficulties caused and the lengthy time delay in response. The effect was that the Shire was effectively discouraged from considering and contributing towards other "betterment" recovery works. It is suggested that some "betterment" funding should be provided on an annual basis, tied in with NDRP applications that local councils might seek. That way, those councils which have identified the "smaller" but expensive to repair deficiencies particularly as part of their local roads and associated drainage networks might be encouraged to undertake a planned and effective mitigation optimisation approach to deficient parts of their inherited road infrastructure assets.

(d) Because of the fact that local government is required to maintain about 80% of Australia's road network length, and has very limited revenue sources, any premium charges associated with insuring such infrastructure would most likely be far too prohibitive to contemplate.

(e) The invitations for local government to seek funding assistance for flood warning and flood mitigation projects have, in the past, tended to be ignored by quite a few councils in Victoria. Then when a natural disaster occurs such as what was experienced in rural and regional Victoria between 2010 and 2012, there was a scramble to submit applications. It appears that there are a number of local councils that have not taken sufficient notice in the past of the importance of doing the hard yards of investigating the risks associated with flooding and floodplain management, and what might be the optimal approaches to specific parts of their municipalities. Such an observation reinforces the view (on page 24) that voters reward politicians for disaster relief spending, but not for spending on preparedness.

It has been noticed recently here in Victorian local government that the number of those at Director and manager level dealing with infrastructure and also having professional engineering qualifications and experience is reducing. This may well mean that the capabilities to oversee the proper analyses of benefit-cost of natural disaster mitigation has reduced quite markedly in recent years, and (in the opinion of this submitter) is likely to lessen even more so into the future.

(f) The increasing use and application of water-sensitive urban design (WSUD) techniques that are aimed to mitigate flash flooding in green fields' sites and to reduce expensive "betterment" programs that would increase the capacities of existing stormwater drainage systems are of some concern. Again, local councils seem to increasingly often not to have enough in-house technical expertise to analyse the broader impacts of the WSUD when applied over larger areas of the urban stock. Attention to the importance of maintenance of the systems, a lot of such systems residing entirely within private properties, is not enforced adequately. Inspection regimes, where in existence, are usually made by staff who may have little or a poor understanding of the designs and required functions and maintenance of the systems.

During a major storm event, such systems are often overwhelmed, and where they might discharge to older established systems the discharges they in turn overwhelm what may well have been relatively resilient. There are planning requirements that ostensibly demand designs of green fields' roads to be able to handle 1% AEP storms and in some cases larger ones only to be defeated by enthusiastic abutting property owners "landscaping" "their" nature strips that had been so carefully designed to accommodate these extreme events. The retrofitting of water sensitive urban design systems to existing urban drainage systems requires a more sophisticated approach wherever there has been any history of urban drainage systems not coping. State planning provisions should be strengthened to ensure that due attention is made and that developers meet the costs associated with betterment of

the existing systems as well as the application of WSUD techniques. The Australian Rainfall and Runoff review currently being finalised by Engineers Australia should ensure that the issues around the application and retrofitting of WSUD to existing systems are addressed.

## ATTACHMENT 1 IPWEA WORKSHOP DETAILS SNAPSHOT

The IPWEA Vic Murray-Goulburn Regional Group is holding a workshop on **Flood Recovery – Infrastructure** in Bendigo on 26<sup>th</sup> June 2014. The workshop is designed to address the approaches to recovery by individual councils/organisations within the Loddon and Campaspe region and explore and document what might be better approaches by local government when any future major flood event requires significant infrastructure recovery works. The workshop is to be facilitated by Malcolm Styles and is sponsored by City of Greater Bendigo. Although specifically tailored to the Campaspe and Loddon catchments it has relevance to all catchments in Victoria.

The Regional Group Convenor has extended an invitation to all IPWEA Vic members to attend and participate in the conversation. The program and registration details are found in the attached brochure.

Please pass on details of this workshop to those in your networks who may be interested in this topic and attending the workshop in Bendigo on 26<sup>th</sup> June 2014.

# **IPWEA Vic Murray Goulburn Regional Group Workshop Flood Recovery –Infrastructure Loddon & Campaspe Catchment 2010 –2012 Storms**

**Date:**Thursday 26<sup>th</sup>June 2014

**Time:**10:00am until 4:00pm including lunch

**Where:**Capital Theatre, View Street, Bendigo

**Who Should Attend:** Those involved in

- emergency management planning & recovery from natural disasters,
- expediting expenditure of funding from State & Federal Gov'ts & agencies,
- resource allocation, mix of in-house & outsourced resources

Workshop organised by EmStylesConsulting Pty Ltd

Hosted by:

Supported by:

## **Registration Form**

This is a free event, however you must register to attend.

Name: \_\_\_\_\_

Member Non-member Dietary Needs: .....

Position: \_\_\_\_\_

Organisation: \_\_\_\_\_

Contact phone: \_\_\_\_\_

Contact email: \_\_\_\_\_

Name: \_\_\_\_\_

Member Non-member Dietary Needs:.....

Position: \_\_\_\_\_

Organisation: \_\_\_\_\_

Contact phone: \_\_\_\_\_

Contact email: \_\_\_\_\_

FAX Back to IPWEA Office at fax no.: 03 5250 3008 or email to [vic@ipwea.org.au](mailto:vic@ipwea.org.au) or Ring through your acceptance to

Mandy on 0419 105 788. Enquiries: ph: 0419 105 788.

To assist with catering arrangements, please RSVP by Monday 23rd June.

For further information on events and membership of IPWEA please visit [www.ipwea.org.au/vic](http://www.ipwea.org.au/vic) IPWEA may

PO Box 115 • OakleighSouth, Vic  
3167 • P: (03) 9005 0860 • F: (03)  
8376 6360 • E: [vic@ipwea.org.au](mailto:vic@ipwea.org.au) •  
[www.ipwea.org.au/vic](http://www.ipwea.org.au/vic)

send registered delegates information about upcoming events.

Please tick here  if you do NOT want

receive information on future events.

# Program

10:00 –10:15  
10:15 –11:00

**Meet & Greet Over Morning  
Tea**

**Setting the Scene: Case Study**

*Malcolm Styles –*

*EmStylesConsulting Pty Ltd*

- Overview of infrastructure issues for the Loddon and Campaspe Catchment as a result of 2010 –2012 flood events
- Use of a case study to give good examples of infrastructure practice for infrastructure effected by floods

11:00 –1:00

**Workshop: What is Good  
Practice in Infrastructure Flood  
Recovery?**

*Facilitated by Malcolm Styles,  
EmStylesConsulting*

- Response, emergency works organisation
- Identification and documentation of damage – short and longer term
- Procurement issues, use of external contractors, consultants
- Assignment, prioritisation and control of works
- Reporting, and claims
- Liaison with other authorities

1:00 –1:30

1:30 –2:30

2:30–3:30

**Luncheon**

**Workshop Continued.....**

**Workshop Summary**

- Key good practice ideas summarised
- Where to from here?

3:30 –4:00

**Conversation Over  
AfternoonTea**



# Workshop

## Background

Since the disastrous floods during 2010 –2012 in the Loddon and Campaspe Catchments, most if not all the road and drainage infrastructure recovery works have been completed by local councils using Federal and State Government Natural Disaster Resource Rehabilitation Assistance funding.

This workshop is designed to

- address the approaches to recovery by individual councils/organisations within the Loddon and Campaspe region,
- explore and document what might be better approaches by local government when any future major flood event requires significant infrastructure recovery works.

### Outcomes

- To document the results of the workshop for possible consideration/inclusion in local Emergency Management Plans for response and recovery strategies.
- To publish the workshop results on IPWEA website for the information of members.

### Presenter

*Malcolm Styles* -is a Chartered Professional Engineer, on the National Register, a Fellow of the Institution of Engineers Australia, Fellow of the Institute of Public Works Engineers Australia, and is a Member of the Australian Institute of Management. Malcolm has post-graduate qualifications in municipal engineering, in management, and a Master of Business. He has practised as a local government engineer for 42 years, and his most recent seven years as the principal consulting engineer of his company. Malcolm is the IPWEA (Vic) representative for the Victorian Flood Warning Consultative Committee. He has written and presented a number of papers to international conferences in his areas of interest including flood mitigation and recovery.

#### *Reference Papers*

- "Storm recovery at Mount Alexander Shire -not once, not twice, but four times!"-International Public Works Engineering Conference, August 2013, Darwin
- "Storm recovery post 2011 & 2012 Victoria. Local Government's experiences from the north and north-west regions" 54th Floodplain Management Association Conference, 20-23 May 2014, Deniliquin