

**Submission  
No 136**

**INQUIRY INTO WINDSOR BRIDGE REPLACEMENT  
PROJECT**

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# WINDSOR BRIDGE REPLACEMENT PROJECT (WBRP) INQUIRY SUBMISSION

## SUBMISSION

To:

Portfolio Committee No.5 – Industry And Transport

**Inquiry into the Windsor Bridge replacement project**

Submitted by: Dail Miller

## BACKGROUND

As a 5<sup>th</sup> generation Hawkesbury-ite with a long personal relationship with the wonderful Hawkesbury district I feel compelled to provide the following submission in opposition to the proposed WBRP.

There has been much written and researched regarding this project over the years much of which is made up of conjecture and inaccurate information from various sources.

However in relation to the Terms of Reference for the Committee, much relevant information is contained in the original EIS dated 2012 and the “Three Independent Reports” commissioned by the Planning Minister in relation to:

- Impact on Heritage
- Traffic Impacts and
- Bridge Condition.

In terms of the Terms of Reference for this matter I offer the following comments:

- a) *the current Windsor Bridge, including its maintenance regime, renovation methods and justification for demolition.*

### **Maintenance Regime.**

There is no doubt that the current Windsor Bridge is in need of some ongoing maintenance and a level of initial renovation to ensure its ongoing viability.

However the perception that the Bridge would require substantial ongoing maintenance costs belies the actual.

In the Independent Report on Structural Condition of the existing Windsor Bridge by Peter Stewart Consulting Pty Ltd it is stated that;

### Executive Summary (page 4 of report):

- While the bridge is deteriorating from various ailments it is not about to collapse in the short term. Each ailment can be treated and this has been plainly demonstrated by RMS and others.
- The bridge can be refurbished at a cost such that it can function for the next 50 years with little ongoing maintenance
- The reports shows that it would not be an exorbitant cost (approx. \$12.5m) to bring the bridge up to an 'as new' condition for an alternative use.
- ... no expenditure on maintenance or repair of damaged fabric is evident except where public safety might be endangered. Despite this neglect it is remarkable that no great deterioration has taken place in the last 10 years.

Indeed in the Summary on page 23 of their report, the Independent Engineers concluded:

#### Summary:

- Proposed spend over the next 25 years is \$61.88/m<sup>2</sup>/year in today's dollars
- Recent maintenance expenditure (over the years 1994 to 2001) was equivalent to \$10.06/m<sup>2</sup>/year.[B8]
- From 2001 to 2013 this has dropped to be almost negligible (RMS have not provided any records of maintenance costs for the period 2002 to 2013)
- If indeed RMS retained the ownership of the bridge they would need to spend significantly more than they are doing at present to prevent the structure deteriorating to a point where it self-destructs.[D11 and D12]
- ***One cannot help deduce that the proposed maintenance spend is presented to support the argument that the bridge is not cost effective to maintain. History shows that RMS does not spend anything like this amount on the bridge.***
- ***Certainly if appropriate routine maintenance was being applied the current state of severe deterioration would not be evident.***

\*My emphasis

That is, the RMS is cooking the books to indicate a need for future high ongoing maintenance cost when in fact it has been their systematic ongoing neglect of routine maintenance of the past 20+ years that has resulted in that position

## **Renovation Methods and justification for demolition.**

The RMS has from the outset been hell-bent on the demolition of the current Windsor Bridge and indicated that it would be unviable to repair the current structure.

They have continually stated that:

- the current bridge is in danger of failure,
- doesn't meet current needs and
- needs to be replaced.

That was until they were confronted by 2 of the most experienced Bridge Engineers in Australia, Brian Wedgewood and Ray Pearson who were both very senior Engineers in the previous RTA/DMR.

The facts indicate that the current bridge can be refurbished, is not in danger of imminent collapse and should a bypass be constructed for through traffic and heavy vehicles, the current structure would meet the alternative need of catering for local and light traffic for many years into the future.

Brian and Ray had determined a refurbishment method that they concluded would work for the existing Bridge and provided this in a submission to the initial EIS.

The RMS in their response to that submission commissioned a report "Windsor Bridge Replacement Project Technical Review of Alternative Refurbishment Methodology of Windsor Bridge" by SKM Prepared by AECOM Australia Pty Ltd on 23<sup>rd</sup> March 2013.

In the conclusion to that report it stated:

- The proposal to rehabilitate the Windsor Bridge using steel jackets and deck concrete patch repairs is considered technically viable provided future maintenance is undertaken to maintain the integrity of the repairs.

Further the RMS conducted their own alternative refurbishment methodology and also concluded that it was technically possible to refurbish the current bridge for ongoing "light traffic" < 16 tonne use.

In the before-mentioned report by Peter Stewart Consulting Pty Ltd the conclusion was:

- This reports shows that it would not be an exorbitant cost (approx. \$12.5m) to bring the bridge up to an 'as new' condition for an alternative use.
- It appears the optimum option is some combination between the RMS and the Pearson Wedgewood options which will be able to provide a viable option to refurbish and strengthen to carry T44 loading with a load factor of 2 which will be sustainable for the next 25 to 50 years, and not build a new bridge at this stage. Then at some time in the future a bypass alignment can be identified, approved and built which avoids all the damage to property, heritage values etc.
- So with a relatively modest expenditure (approx. \$14.5m) the bridge can be serviceable for the next 50 years within which time an alternative route will have been identified and agreed.

Accordingly, one can't help but conclude that:

- The current Bridge can be refurbished for ongoing local/light traffic use if desired.
- There has been a deliberate systematic neglect of the current bridge which has led to its current need for refurbishment.
- That the RMS has "cooked the books" to support their argument for high ongoing maintenance costs

*b) the replacement bridge project, including:*

*i. options presented to the community*

The initial proposal involved presenting nine Options for the construction of a new bridge over the Hawkesbury River at Windsor.

Any fundamental analysis of those 9 options would quickly come to the conclusion that most were erroneous and simply would not stand up to any very basic assessment.

Of these options there were 2 bypass options also included. However the 'conclusion' reached was that the two "bypass" options identified would substantially exceed the project budget and the "do nothing" alternative was not investigated further due to perceived cost of maintaining the current bridge.

From this three preferred Options: Option 1 and Option 2 (replacement Bridge downstream) and Option 6 (a "bypass" option), were shortlisted.

All of these options (including the bypass options) involved the demolition of the current bridge).

The various options were benchmarked against the objectives of the project in terms of effectiveness and cost:

"in examining the comparative table of the performance of the various route options (Options Report, August 2011 comparative table, p.77 ) the project "Provides a cost effective solution – capital cost" has been given a higher weighting than any other.

This can be concluded because on other criteria the alternative options, apart from the effect on heritage, either outperform or are equivalent to.

With regard to Heritage, Option One underperforms significantly in comparison with other options.

Therefore COST was THE overriding factor in these considerations and insufficient weighting was applied to heritage considerations in this most highly sensitive Heritage Precinct".

CAWB response to EIS page 92

From the outset, the cheapest option seemed to prevail and no dollar cost was factored into the alternatives for the effect on heritage

Indeed in the fullness of time this cheapest option approach seemed to have been misleading as well as the cost of the project has increased from some \$28M in 2013 to an estimated \$115M today.

*ii. post construction strategic outcomes, including traffic benefits, transport and network service capacity*

Following construction of the proposed project it has been well documented and admitted by the RMS that the project is not a proposed traffic solution for the district but a “like for like” Bridge replacement Project.

Various traffic studies have been undertaken as to the proposed results before and after of effect on traffic.

Of course no study has been undertaken as to the proposed benefit of a viable bypass for heavy and through traffic and retention of the current bridge for local traffic.

It would be reasonable to conclude that any analysis of that would show a substantial and significant improvement in traffic management.

Analysing statistics concerning traffic can be very technical and confusing. However, noting directly from the conclusion of the Independent traffic report by Cambray Consulting of August 2013 and commissioned by the Planning Minister :

- In summary, based upon the information provided to us, it appears that the scope throughout much of the duration of the project has focussed on justifying the preferred option, as opposed to undertaking a thorough investigation into alternative options.
- In our opinion, there may be other options which were discarded prematurely, or for which ‘sub-options’ may be feasible.
- Additionally, there may be alternatives which offer a better long term solution, which can be staged, and perhaps make better use of the funds being invested into the construction of a new bridge.
- We suggest that it may be prudent to ‘step back’ and undertake a broader study to investigate long term solutions, and once a preferred long term solution is identified, consider a staged approach or interim treatments to progressively deliver that long term solution. This would avoid investing substantial funds into a traffic route which will have a limited ‘life’ due to constrained intersection capacity on the roads feeding the bridge.

Reading from this, it can be concluded that the proposed bridge is NOT a traffic solution for the Hawkesbury District and in this regard is a waste of taxpayer funds.

*iii. economic, social and heritage impacts*

**Economic Impacts.**

- During Construction.

In the EIS document from the RMS page 121 “Construction and Timing duration” it is stated that a construction period of 20 months is envisaged.

Whilst the RMS attempts to convey that much of this work will be initially done on the Wilberforce side of the river, it is apparent that with peak hour traffic in particular currently at saturation point, any minor activity in the vicinity of Thompson Square and /or Windsor Bridge will result in very significant knock on effects with traffic.

During this very lengthy period of construction very significant traffic delays can be expected.

While no studies have been undertaken for the impact of this, it could be assumed that this will result in very significant disruption to the Thompson Square precinct during construction.

This precinct is a primary driver to the economy of Windsor due to its Heritage Value and general “ambiance” as a historical town on the outskirts of Sydney with access to the Hawkesbury River.

- Post-construction

The Economic Impact post construction depends heavily on the perceived impact on the Heritage Value of the project.

Windsor in general and Thompson Square specifically draws much of its economic activity from the value of its Heritage Assets.

If you assume that the WBRP will have a significant and irreplaceable impact on the Heritage Value of Thompson square then it must be concluded that there will be some economic impact that goes with that damage.

### **Social and Heritage Impacts.**

You could fill the pages with the opinions of Heritage Experts who all state that the WBRP will have significant and irreversible negative impact on the Thompson Square Heritage Precinct.

Indeed those that have stated thus and /or are opposed to the project proceeding on the grounds that the project will irreparably damage the heritage value of Thompson Square include:

- the RMS own Heritage Experts
- Heritage Council of NSW.
- National Trust of Australia
- Independent Heritage Review (Cambray Consulting).
- Other Heritage Experts such as Ian Jack (historian) and Clive Lucas (heritage architect).

A selection of quotes from these experts includes:

"The RTA has formed the opinion that the impact of the project on non-Aboriginal heritage would be significant." Windsor Bridge Replacement Application Letter, RMS, 4 October 2011

"This is going to be bad for heritage, no doubt about it... " Kirk, Barrister for the Government, Day 2 Court Transcript, pg. 53

"...the most appropriate treatment of Thompson Square and Windsor Bridge is to avoid any further negative impact and to take the opportunity identified by the Heritage Council to remove through traffic." Windsor Bridge, EIS, Historic Heritage Working Paper Part 1, pg. v.

"Given that the bridge is considered an item of state significance within the EIS, give further consideration to options for the proposed route that retain the bridge to provide either a primary or secondary use." Windsor Bridge Replacement Project Independent Heritage Review August 2013, pg.38

"If the WBRP were to be approved DP&I would approve the excavation of a potential archaeological site of State significance and possibly of National heritage significance. This would be against the advice of the NSW Heritage Council and their specialists and the consultants who wrote Working Paper 1." Windsor Bridge Replacement Project Independent Heritage Review August 2013, pg.38

"Working Paper 1 says impacts are so major WBRP should not go ahead. RMS's heritage consultants in Working Paper 1 state the proposed impacts on Thompson Square Conservation Area are so major the WBRP should not go ahead. But RMS has chosen not to accept this advice because they had already chosen to explore only Option 1 in this EIS." Windsor Bridge Replacement Project Independent Heritage Review August 2013, pg.8

"This proposed design is not based on a full understanding of the significance of the heritage values of the place, nor on any heritage design principles or conservation policies, on which to base a future design. Therefore it is not mitigating impacts on heritage but an additional impact." Windsor Bridge Replacement Project Independent Heritage Review August 2013, pg.8

"It is unequivocally opposed to the project for the 'irrevocable damage' it will do to Windsor and Thompson Square. The Heritage Council of NSW reinforced its preference for a bypass option. It argues the project should be refused on heritage grounds." Heritage Council of NSW

"There has been inadequate recognition that the State Heritage Register listing for the Square includes the open space and all of the buildings which surround it. Thus the relationship not only within the open space, but between the buildings and the Square, or the entire setting of the Square is of importance. The placement of a new major road along the side of Thompson Square will sever the relationship between the buildings along Old Bridge Street to the Square, and also with the buildings on the opposite side of the Square.

There is no doubt that the construction of a high, wide, modern concrete structure through this heritage precinct will have significant detrimental impact on its heritage value. Yet the RMS insists that this damage is outweighed by benefits to the community.

However it fails to demonstrate any significant improvements in;

- Traffic improvements or
- Flood Immunity (see below)

Whilst the current approach road is not ideal it is significantly less intrusive than the proposed, cutting down through the square so as to minimise both noise and visual intrusion of traffic. It also provides a natural barrier between the recreational areas and traffic areas of the square. The proposed road and bridge will be much more intrusive and reduce the ability to enjoy a more serene experience in the Square.

The proposed Urban Design and Landscaping will add to this impact by the resultant severe slope of the "green area" and traffic atop high walls surrounding this.

#### *iv. flood immunity benefits*

The existing Bridge has a so-called flood immunity level of 1 in 2 year flood event. The proposed bridge has a level of 1 in 3 year flood event.

Whilst a marginal improvement in flood immunity is acknowledged, it fails to compare this flood immunity level to that which would be applicable to an alternative bypass option.

What the community has been agitating for is the retention of the existing bridge AND the construction of a bypass. Such a bypass would by necessity address the area of increased flood immunity.

The initial requirements for the project was to have a desired 1 in 5 flood immunity. However the project has resulted in only a 1 in 3 year outcome as being acceptable to the RMS.



There have been no changes to the height of surrounding roads, which go under during floods. This project is therefore not delivering an acceptable level of flood mitigation.

## **CONCLUSION**

*The Windsor Bridge Replacement Project is an ill-conceived project that will:*

- *Offer no meaningful traffic solution.*
- *Only very marginally improve flood immunity and*
- *Irreparably damage one of Australia's premier heritage locations, currently of the highest order of State Significance and arguably National Significance.*
- *Destroy the historically important Windsor Bridge*

The alternative a bypass and renovation of the current Bridge offers the opportunity to achieve all of the above whilst maintaining the heritage significance at not much additional cost

## **RECOMMENDATIONS**

*It is recommended the following actions occur immediately:*

- *The Windsor Bridge Replacement Project be stopped.*
- *Archeological salvage cease*
- *The State Govt and RMS start planning for a Bypass and retention/refurbishment of the current bridge*

*Dail Miller*

*22 Jan 2018.*