INQUIRY INTO WINDSOR BRIDGE REPLACEMENT PROJECT

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Submission to:

Portfolio Committee No.5-Industry and Transport Inquiry into the Windsor Bridge Replacement project The Director, Portfolio Committee No. 5, Parliament House, Macquarie Street, Sydney NSW 2000. Submitted by: Helen Mackay

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Background:

I oppose the whole of the Windsor Bridge Replacement Project on a number of grounds. As a qualified historian and a local resident of the Hawkesbury for 30 years, I am very concerned that the Windsor Bridge Replacement project is being driven by structural engineers with no real understanding or in-depth knowledge of the social, historical and tourism significance of the township of Windsor. During this entire process, not one member of the NSW Liberal Government has visited the site to better understand its significance. Decisions are being made in ignorance. For 4 years I have conduced regular heritage walking tours which put Thompson Square into its historical context. Many hundreds of participants in these tours, from the local, wider Sydney, interstate and international areas all express their disbelief that this project has been approved by the NSW government. I have read all publications associated with this project, including the independent reviews and have attended all community briefings. My overall impression of the drivers of the project are less well informed than all the peak heritage advisory bodies, independent engineers and even the local community. The high turn over of personnel associated with the project has contributed to the poor standard of knowledge. The RMS has dismissed all suggestions and alternative options and has skewed all reporting to that of justifying Option One.

Issues:

1. Options presented to the community

9 options were prepared for community consideration and comment in 2009 (9 years ago) The RMS report on these consultations reported that the community expressed its greatest concerns (30%) about Heritage Impacts, based on the first two options, followed by Traffic concerns and (21%) and Floods (10%). The community concerns about heritage were nearly as high as traffic and floods combined so heritage should have been given far greater attention than the other two. It appears almost as an after thought with phrases like "minimizing impact", "enhancing heritage", mitigating destruction" being the main references.

Options three, four and five were dismissed as they would effectively cut the township of Windsor in two and destroying it economically, especially the retail precinct. Option 6 and 7 impacted too greatly on the residential area, flood access and may have involved buy ups of properties. Interestingly, it was also stated that these two would (and also option 8, would impact on the power boat clubs use of the river, in that their navigation of the river would be reduced (by only a few 100m) and that the shadowing over the river by a new structure would be a problem. The power boat club represents a tiny percentage of the community and the Hawkesbury's population and I am incredulous that their concerns weighted more highly than the 30% who were unhappy about heritage impacts associated

with Thompson Square. They run only two major events a year, whereas those impacted by the traffic snarls experience it twice, 365 days of the year. There is an extreme disproportionate weighting given to the "shadowing" over the river. Option 9, to refurbish the old bridge was the least popular option as clearly while it would prolong its life, it would do nothing to provide a flood evacuation route or a solution to traffic issues. However, there never was an option proposed to keep the old bridge for local and/or light traffic and to bypass the town completely, taking heavy through traffic away from the retail and social centre of the town. Many in the community felt that they were being "channelled" into supporting the Option that was already a forgone conclusion, especially as an internal RMS email reveal the preferred bridge option was decided in 2008, however community consultation to choose the 'yet undecided' preferred option didn't start until July 2009.

Conclusions and Recommendations:

Given that there are 4 community groups, that I am aware of, committed to organising opposition to this project, the more informed the community has become about Option 1, the more they are opposed to it. The largest protest group has sent 45,000 letters of opposition to the (past three) premiers and has 10,000 followers on Facebook. I think the people have spoken: despite Dominic Perrottet calling the Government's Architects Office, the NSW Heritage Council, Engineers Australia, 200,000+ members of Australia's heritage and historical associations, the Government's own experts in traffic, engineering and heritage, over 40,000 community members and over 10,000 members of a Facebook page a 'fringe group'.

The RMS should be directed to investigate an "Option 10". Ie: bypass the town at the Southern end (the suggested Rickaby's line would connect with the flood evacuation route already there (Hawkesbury Valley Way) and cross through green space limited need for buy up of residential property AND to refurbish and keep the old bridge for light and local traffic. Thus providing a third crossing of the river. The cost of refurbishment would likely be similar to the cost of demolition and back filling all approaches. This would satisfy all ie: a flood free route, a traffic solution, no heritage of economic impacts to the town.

2.Traffic Outcomes.

Those in support of the Windsor Bridge Replacement project believe that it will solve the considerable traffic congestion during morning and afternoon peaks. It is not disputed that delays of over 20 minutes at intersections have been occurring for years and that queues can stretch as far as 2km. One of the key features of the project according to the RMS website, is "to connect the new bridge to the existing road network". There is absolutely nothing in the plan to improve the existing road network (all of which is one lane in each direction). There is little evidence to suggest the current plan will solve traffic congestion problems, or even ameliorate them. Initially the project was being "sold" on this basis but at the community briefings by representatives of the RMS (all of which I attended), they had ceased using this rhetoric and admitted that the project was primarily about replacing the bridge, rather than aiming to solve traffic congestion, other than by putting in an additional set of lights and a roundabout.

Cambray Consulting PTY Ltd undertook an independent review of information provided by the applicant (RMS) in 2013. Their conclusions (pg73) were damning: "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." Many statements made by the politicians and the RMS are not supported by the evidence in both their own, and in the review documents.

Due to community outrage when it was clear that the plan provided for one lane of traffic across the bridge (same as now), the local member announced in the "Hawkesbury Gazette" in 2017, that the plan would be altered to allow for three lanes and queues would be reduced by 300m. (not much!) Given the same number of cars would be leaving home as returning, the additional bridge lane would not affect a long-term solution. Both the Government's independent traffic expert and the RMS (April 2016) said any third lane will simply provide "more vehicle storage space" on the bridge.

While Mr Perrottet (the local member) apparently believed the changed plans will "reduce congestion for Hawkesbury drivers", the RMS did not agree. An RMS Q&A, (April 2016) said a "third lane is not required until 2026. The third lane takes away the planned breakdown lanes. Breakdowns will now block through traffic and cause traffic delays (RMS April 2016)." It also said "congestion is currently caused by the intersections on approach to the existing bridge". The width of the bridge is basically irrelevant as its feeder roads provide only one lane in each direction for some considerable kilometres.

Traffic counts were done during the school holidays: The EIS states that the analysis was based on counts of turning volumes collected at the Bridge Street / George Street and Wilberforce Road / Freemans Reach Road intersections on Wednesday 7 December 2011, and also in July school holiday period, and SCATS data for the Bridge Street / Macquarie Street intersection on the same day. (Cambray consulting). In 2011, vehicle movements were recorded as over 20,000 per day. Over the 2012-2017 period, light traffic increased by 7% but heavy vehicle movements increased by 48%, reaching between 5,000 and 6,000 movements per day. Based on the RMS future projections, the movements projected over the new bridge over the 5 years following completion have already been superseded. Thus, the new bridge is already redundant in terms of both heavy and light vehicle movements. There is also considerable residential development planned for the Freeman's Reach side of the river, around Glossodia (Jacaranda Ponds) and the expansion of the Tinda Quarry, Putty. Increased light and heavy vehicle movements from these developments have not been accounted for.

In contrast, by 1960 the 2 lane bridge across the Hawkesbury River at Peats Ferry Bridge had reached 6600 vehicle movements per day (Metzke, M. Pictorial History: Hornsby Shire, 2004, p17). **ie: similar to Windsor Bridge now. As a result of these numbers being considered unacceptably high,** the Dept of Main Roads (sic) determined that the old 2 lane bridge (1938) should remain, and that a 4-lane freeway should bypass the residential areas and that no properties would have a frontage to the new road. This was a solution for the long term. This became the M3, a **6** lane bridge, opened in 1973. It had also become apparent during WW2, that if anything happened to the bridge at the mouth of the Hawkesbury, all traffic to Newcastle and the Hunter would need to go through Windsor and there were some real concerns for evacuation if Sydney was attacked. This situation remains in the 21st Century.

Cambray Consulting pg9. concluded that: "many of the options investigated (including the preferred Option 1) involve the major traffic route running through town, where there are significant constraints upon upgrades to the intersections which would 'feed' the bridge. These options may therefore only defer the need for an alternative river crossing further out of town, not do away with it all together. This has been acknowledged by RMS in a number of the documents that have been prepared to support the application for the bridge replacement. I would prefer to see an

additional river crossing built outside of the town now, rather than waiting for some time in the future and duplicating costs and inconvenience unnecessarily.

Cambray Consulting pg.67 concluded that: "If the current bridge was to be retained for local traffic, this could offer a good result all-round. The new bridge (a bypass) could take B-doubles and heavy vehicles away from town, allowing a load limit to be imposed on the existing bridge to possibly extend its life, minimise the effects of heavy vehicles on the town, and retain local connectivity. The existing bridge could still be used by traffic heading to Freemans Reach Road (which is essentially local traffic), whilst allowing through traffic to bypass Windsor, protecting the town from the intrusive effects of heavy through traffic (both volumes and vehicle size)."

Opponents of a bypass fear that traffic being taken past the township will result in a loss of commerce. However, from the RMS destination counts, it appears that the majority of vehicle movements crossing the bridge already are not associated with visits to the town. Most vehicles turn right at the Macquarie Street intersection and are bound for Blacktown, Penrith or the Bell's Line of Road ie: though traffic anyway.

Another concern is the lane widths on the old bridge. They are currently 3.05m. The new bridge will have widths 3.3-3.5 which is within "acceptable limits for heavy vehicles", according to the RMS. A \$100 million expenditure for a few centimetres does not seem worth it.

Conclusions and Recommendations:

That Option one will deliver a traffic solution/ good outcomes is not upheld based on:

Three lanes on the bridge will not solve the traffic congestion between the intersections of Cattai Road and Windsor Road, the whole of which is one lane in each direction and crosses the Fitzroy Bridge which is one lane in each direction.

The feeder roads from Wilberforce and Freeman's Reach are also one lane in each direction for a number of kms.

Increasing the lane widths by 30cm or less will do nothing to improve traffic congestion. If heavy vehicles were removed from the old bridge, its lanes would fall within acceptable limits for cyclists and/or light vehicles.

A bypass would not hinder local commerce. It would merely remove from the town the heavy vehicles which have onward destinations other than Windsor.

The projected vehicle movements from 2011 and prior, to take into account the first 5 years of the new bridge, have already been superseded by 2017. This the plan is already redundant and a waste of money. There has been a 100% increase in heavy vehicles through the Square since 2012, with up to 3,000 heavy vehicles travelling through the Square each day.

The project should cease and the RMS should be directed to investigate a bypass alternative. Excellent research into towns in NSW which have been bypassed have concluded that there are many benefits eg: pedestrian safety, noise and air pollution reductions, improved amenity, increase in tourism and commerce. Recent towns receiving bypasses were (some larger than Windsor, some significantly smaller): Coffs Harbour, Coolac, Holbrook, Karuah, Moree, Newcastle (part city by-pass), Tarcutta, Tenterfield, Woomargama, Alstonville, Albury/Wodonga, Coopernook, Bega, Berry (less heavy traffic than Windsor), Gunning, Macksville (less heavy traffic than Windsor), Ballina. Most recently research papers on the Berry and Macksville bypasses came to same conclusions. Moree was bypassed due to the "unacceptable" level of truck movements which were in the order of 100s not thousands per day.

Windsor is getting a very shoddy, poorly conceived and not a future proof plan with only marginal, if any, benefits to traffic problems.

3. Economic, social and heritage impacts

This project will have irreversible impact on the significant heritage, tourism potential and public amenity of the oldest civic space in Australia and the retail, recreational and residential spaces in township of Windsor.

The RMS's own heritage adviser in the EIS said it will significantly damage heritage as did the Judge & Barrister Kirk in the court case, as did the Heritage Council, the National Trust, The Royal Australian Historical Society, Associate Professor Carol Liston, the Council's heritage advisor and the EIS itself as highlighted in the Heritage Adviser's report.

Specifically in using the SCMP as an example, I can have no confidence in a plan to "enhance heritage" when the document holds so many errors of historical fact.

Specifically:, the statement on page 7 : "to ensure the values of the place are maintained and, where appropriate, enhanced" causes considerable offence and is contradicted by all the plans I have seen so far and the advice of experts. It is a statement of hypocrisy. It is not possible to "enhance" what has been destroyed. It is not possible to enhance the oldest Georgian Square in the country, with associations through both our colonial and later historic periods, by putting a modern concrete arterial roadway through it, thus irrevocably cutting off the access from the eastern to the western sides. Casey and Lowe, the peer reviewers of the RMS's EIS said the project would seriously damage the heritage of Thompson Square. The National Trust opposes the project because of the damage it would cause to the heritage, both built and cultural. In 2009 The Government Architect's Office rated the negative impacts on aspects of the Square as being 'Very High'. The Spackman Mossop Michaels Report of 2011 indicated "A new bridge and approach road would alter the character of the space by dominating the square, creating a strong visual separation between the open space and its important surrounding buildings." The Heritage Council is unequivocally opposed to the project for the 'irrevocable damage' it will do to Windsor and Thompson Square. It argues the project should be refused on heritage grounds The Royal Australian Historical Society opposes the project due the damage it would cause to the heritage. Clearly the RMS and the NSW Government believes they know more about enhancing heritage than these expert guardians of our heritage.

The RMS's own heritage advisers in the EIS stated: "....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."** In the cited court case in the draft SCMP, the **barrister for the Government said**, **"This is going to be bad for heritage, no doubt about it..." – Kirk, Day 2, p. 53**

Also on page 7 it says, "Thompson Square is **one** of the oldest public squares in Australia." Historical fact identifies the Square **as the oldest** in our nation. I repeat, not just one of, **but the oldest**. It dates from 1795. There is not any other square from this century. "A Square" as understood in context is a residential, commercial and recreational space. In all the RMS Concept plans it is treated as a park. The facades of the buildings are recognised but not the whole fabric of the Square. On page 73 of the SCMP it says, "Thompson Square had existed for fifteen years before new urban

squares were created in Sydney. This seems like the plan is in fact contradicting its own version of history. There remain today 4 surviving squares in Richmond, Wilberforce, Liverpool and Windsor (Thompson Square) on the mainland. There are smaller squares in Tasmania but these have been altered by unsympathetic development.

On page 9: Figure 2: It appears Windsor Road goes to at least George Street. Bridge Street then starts and goes over the Bridge, the bridge road being labelled Bridge Street. On page16: Figure 4: Bridge Street is marked to be north from Macquarie Street. Again history is being re written. Bridge Street came into existence about 1813-14, when a new bridge was built over South Creek. Bridge Street refers to the road leading to the bridge over South Creek and had existed for about 50 years before the Windsor Bridge was built. Bridge Street was named because of the bridge(s) over South Creek. In 'Early Days of Windsor' by James Steele it states:

"Reserve, No. 36,874, for protection of approach to Fitzroy Bridge in Bridge Street, including the old toll house, which was in existence as early as 1827." "Bridge Street: Runs into South Creek bridge."

"A petition influentially signed had been presented to Governor Denison in 1857 for a site for a Mechanics' School of Arts, indicating as a desirable site a small portion of land at the head of Bridge Street", "Bridge Street (corner of Court Street, next the South Creek.)"

On page 131 of the SCMP, it seems that the writers have contradicted themselves but getting it more accurate: "Bridge Street had been created in 1814, soon after the completion of the new bridge over South Creek" and "Bridge Street, however, was a very short thoroughfare, ending at present day George Street." and look at figure 83 on page 132..

On page 10 it says: "The CMP is to provide for the conservation of the Thompson Square Conservation Area." and "The development of heritage design principles for the project to retain the significance of the Thompson Square Conservation Area and any individually listed item within the conservation area or in proximity to the site," This is contradicted by the statement on page 11"The SCMP only extends to the front facades of the buildings within the study area on the southern side of the Hawkesbury River." The conservation area in fact extends beyond the facades. It extends to the back boundaries of all buildings on the Square but the SCMP conveniently ends its responsibility and their front boundaries. There is been no statement on the how the RMS will provide for the mitigation noise, vibration and visual pollution to these buildings. Yet it is still committed to "enhancing heritage"?? However, we find on page 80 that the RMS now accepts responsibility for the whole area and its curtilage. It says, "Thompson Square does not consist solely of the public space but also the built environment which grew up on three sides. The Thompson Square Conservation Area which is inscribed on the State Heritage Register includes the buildings around it and their own individual curtilages."

On page 12 it states," This court challenge was unsuccessful and the court ruled in favour of the approved project on 27 October 2015". This is incorrect. Under State SSI legislation a court case cannot be heard on the merit of the project or on heritage grounds. The only grounds to mount a court case is judicial process. Justice Brereton did not rule in favour of the project - that would be on merit - but rather ruled the Minister had the authority to approve the project under the terms of the legislation. While acknowledging that the Minister had the right to proceed with the project he did note that: "major impacts on cultural heritage, as identified by the (conservation management) plan, will just be an irrelevance." - Brereton, J. Day 1, p. 49. and agreed with my initial paragraph that "He (the Minister) has rejected the advice of every heritage advocate who has looked at it (the new bridge)." Again it seems the RMS and the NSW Government answer to a higher authority that that of all the "experts".

On page 29: "1 October 1799 Andrew Thompson granted a formal lease on 1 acre of land, forming the boundaries of the later Thompson Square". This does not make sense. Thompson's lease was on a portion of the government domain. In those days the boundaries of the domain and "Bell Post Square" were South Creek, and the River, extending to Baker Street. The statement reads that the Square was only an acre which corresponded with Thompson's lease. **Not the case.** This is shoddy history.

Also on page 29 it states, "January 1810 Governor Macquarie announces that Andrew Thompson is to be the colony's first magistrate." This was not the case. History being re written once again.

In the "Australian Dictionary of Biography" it says: "When Macquarie arrived in 1810 Thompson was in poor health as a result of effects of cold and immersion in the 1809 floods. However, Macquarie restored him to favour and appointed him magistrate at the Green Hills, the first **emancipist** to be appointed to such a position." Darcy Wentworth had been the first magistrate.

On page 59 of this document it says: "The Deputy Surveyor, Charles Grimes, was the first resident magistrate at Hawkesbury, followed by the First Fleet surgeon, Thomas Arndell, in April 1802." Which contradicts the a previous assertion. On page 64 of this document it says: "The study area in 1798 is the crucible in which the passions flamed and hardened, influencing the course of Australian democratic process. Harris' defence of his rights as a free person, once his sentence had ended, was on public display, supported by the Reverend Samuel Marsden, the Hawkesbury's magistrate"

Finally, the writers get it correct :on page 71 of the SCMP it says, "Thompson was to be the colony's first ex-convict magistrate, stationed at Hawkesbury."

On page 30 it states: "1896-1897 Windsor Bridge raised by two metres. Punt brought briefly back into service before Windsor Bridge was ready for use again. " However, in the *Windsor and Richmond Gazette Saturday 3 April 1897* it says, "The construction of a temporary bridge was completed on September 9, 1896, this bridge to carry traffic during alterations to permanent bridge. The temporary bridge was 460 feet long, was completed and opened for traffic in six weeks." On page 122 it says: "When the level of the bridge was raised in 1896, the punt had to be brought briefly back into service before the temporary bridge was ready for use. Confused? I am.

There is no reference to the use of reinforced concrete beams which replaced the timber deck in the early 1920s. In the Statement of Significance, Heritage and Conservation register, Roads & Maritime Services, 21 October 2004 it says, "The addition of a reinforced concrete beam deck to replace the timber deck in the 1920s is a relatively early use of this technology." On page 30 it says, "Concrete slab bridges, in this era, were universally cast-in-place" and, "the concrete structural beams were individually cast in moulds on the riverbank adjacent to the bridge and, when ready, were lifted into place by crane." There is further evidence to indicate the use of such beams did not become common practice until the 1950s. If this is so, it is a significant industrial heritage feature and thus should be included in the table.

There is no reference to the Macquarie commissioned and Greenway designed wharf (1816-1820) the archaeological remnants of which are still visible. This is a major heritage item. It was the subject of archaeological assessment by Edward Higginbotham in 1986, formed part of the Maritime Archaeological assessment in the EIS by Cosmos and was mentioned in the Casey and Lowe review. All concluded that attempts to salvage and preserve the remains at least were necessary, due to its significance. There is not any mention of any attempts to do so, despite specific

recommendations by the Heritage Council that this should happen. I believe this has now been added to the AAJV contract, although specialist Maritime Archaeologists will be employed.

On pages 96/7 reference is made to the brick barrel drain. This is the earliest example in the nation's history. The remnants of a slightly "younger" one is on display in Parramatta. It is stated that the drain was not located in the recent archaeological survey. It was exposed in the 1930s, it was recorded and photographed by Edward Higginbotham in 1986 and there are local citizens who claim to have played in the drain in the 1970s. Higginbotham saw its walls under the old club house in the Square. The footings of the clubhouse are still there so it is easy to locate the position. The archaeologists seemed to have "avoided" that area. However, at the close of business in 2017, the archaeologists unexpectedly found these drains and discussions will occur as to whether they will be removed , destroyed or whatever. Far better it would be for them to be preserved in suit for display and interest to future generations in the manner that Old Government House, the Rocks, has displayed its foundations

Finally the Hawkesbury River and Buttsworth Creek are wrongly named.

Given the considerable errors in this document I have no confidence in any of the others.

In the Independent Heritage Review, WBRP Mary Casey and her team were incredibly critical and damning of the methods and conclusions in the EIS. Her full summary is as follows (Casey and Lowe, pg 7)

"1. The extensive reporting undertaken for the WBRP Heritage Assessment and Statement of Heritage Impact (SoHI) is sprawling, repetitive, and poorly synthesised. Additionally, it is generally inadequate in its analysis of historic maps and images, and incomplete where it does not conform to the guidelines and objectives of the NSW Heritage Manual. The scale of concerns about this report relate to what may appear to be minor details but which have significant cumulative consequences which have led to an inadequate understating of the significance of Thompson Square Conservation Area and the reasons for its State significance. On these grounds the reviewers are not in a position to recommend any relevant conditions for consents of approval. While these issues may appear minor within the context of the recommendations from Working Paper 1, that the project should not go ahead because of the impact on the significance of Thompson Square Conservation Area and Windsor Bridge, they are of high importance if the WBRP were to be approved on the basis of the current assessment, analysis, and assumptions which were to be used to provide a guide for managing the impacts on the square. The specifics of this key issue are detailed below.

2. The Heritage Assessment is insufficient to fully understand the significance of the Thompson Square Conservation Area. Further work needs to be undertaken to bring the assessment in line with the NSW Heritage Manual as outlined in Section 6.1. The required documentation should conform to the information usually contained within a Conservation Management Plan (CMP). The current assessment does not provide an appropriate detailed analysis of Thompson Square Conservation Area and the relationships between buildings and the open space of the square nor any heritage design principles or policies to guide the impact assessment. As recognised by the Heritage Council of New South Wales in their submission and reiterated in other sections of this report: 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. Thompson Square thus comprises a series of interrelated components the setting, historic plantings, monuments, fencing, roadways, surrounding buildings and connections to the River. Such squares are rare in NSW and in Australia."

On Page 8 it is stated ". 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."

Conclusions and Recommendations:

I commend the Casey and Lowe review as the best summary of all that is wrong with the project on Heritage grounds.

As a flood prone town Windsor has limited potential for economic development. Any observer, on any given day, can se that the main "industry" is tourism and recreation. The restaurant precinct has developed very successfully alongside Thompson Square. Tour buses with overseas visitors regularly dispatch their clients at Thompson Square. Locals wander the town at weekends. Once construction starts, all these businesses will be impacted and possible be unable to survive the noise and cordoning off of work site areas. It will not be an attractive town for tourists. The construction is predicted to take 2 ½ years. The economic and social heart of Windsor will be destroyed. This project should be halted now, before any more damage is done and before the economy of Windsor is destroyed forever.

4. Flood Immunity Benefits (or rather the lack thereof)

One of the key features of the project, according to the RMS website, is for the "new bridge to cope with higher levels of floodin". The river height is .6m AHD. The current bridge is between 7m and 8.5m (AHD) above river height. This is assessed as a 1:2 flood risk. The proposed bridge will be 9.8m (AHD) above the river and is assessed at 1: 3 flood risk (EIS Documents).

Molino Stewart, "Hawkesbury Nepean Flood Damage Assessment. Report to Infrastructure NSW (2012), Department of Primary Industries (2014) and Hawkesbury City Council provide facts on flood history of the River as follows:

The river has experienced river heights at Windsor of 11.1m AHD 16 times, most recently 1992. It has experienced flood heights of 12.3m AHD twice: recently 1988 and 1990., heights of 13.3-14.5 16 times, most recently in 1978 and 1990. The highest flood was in 1867 at 18.6 m AHD, with evidence of before European settlement of at least one flood of 20.3mAHD. Hydrologist predict the "Probable maximum Flood" at 26.4mAHD at Windsor. With current climate change, the likelihood of this is difficult to assess. The land between the Fitzroy Bridge and Thompson Square lies at less than 14 m at the lowest point. Thus, the two bridges can be isolated by floods in excess of 14m AHD, which has occurred 16 times, most recently in 1990.

There have been no floods higher than 6.4m AHD since 1992 (10.8m AHD), so a while generation of residents and planners have not witnessed the severity of some flood events and the associated impacts. Flood awareness is not high on the current community, nor clearly among planners either. In addition, Warner (2014) in Water and Environment Journal, no.38, quantified the alternating flood and drought dominated regimes in the Hawkesbury. These average roughly at 30-year intervals (22-48) depending on La Nina and El Nino patterns. For the last 30 years we have been in a drought dominated pattern, which explains the lack of flood events. Some erroneously believe that as there has not been a major flood for 25 years, it is unlikely there will ever be one again.

While the bridge level will be raised by an average of 1m, the feeder roads will remain at the same height (from both Wilberforce and McGraths Hill). These roads will be inundated long before the bridge deck and therefore access to the bridge will not be possible during even minor floods. The flat land between McGraths Hill and the Fitzroy Bridge floods readily from both South Creek and McKenzie's Creek, and at times becomes impassable to traffic, although the Hawkesbury itself is not in flood. I have witnessed such events many times in my lifetime. The 2012 Molino Stewart "Hawkesbury Nepean Flood Damages Assessment" concluded that if a 1:100 year flood event occurred the evacuation of 50,000 people would be necessary. A bridge at 9mAHD would not be adequate for this task.

Conclusions and Recommendations:

Supporters of the proposed option believe that it will provide significant flood immunity.

This is not supported by the statistics on the flooding of the Hawkesbury Nepean system.

It is not supported by the fact that the bridge will only be @ 1.5m higher than the current bridge.

It is not supported by the fact that the feeder roads in both directions are particularly low lying and can be inundated before the bridge itself, or definitely if the flood events approach the common height of 11 m AHD, cutting of access and potential flood evacuation.

There is a genuine flood free bridge on the Western side of the Thompson Square: Hawkesbury Valley Way and the Jim Anderson Bridge. It would make more sense to link up a Windsor bypass route to this evacuation route on the Southern side of the town.

5. Project Processes:

The project has failed to deliver a quality outcome based on the performance of the RMS, and the ineffectiveness of the Department's strategic planning. There has been no effort to explain why such a destructive plan is better than building a town bypass. Initially the justification was based on cost but with the estimated cost blow outs now, this argument is facile. The impetus for the project came from a petition signed by approximately 17 people. Many of whom had spurious "interests".

In 2008 the Government Architects Office (under a Labor Government) advised against proceeding with the bridge replacement project based on heritage grounds.

On 23 February 2011 a NSW Department of Planning spokesperson told the Gazette, "Neither Option 1 nor Option 3 for a new bridge could be supported on heritage grounds,".

On Saturday 1 October 2011 (under the Liberal Government) the legislative changes to switch off heritage protection for projects under state significance infrastructure became operational.

On Tuesday 4 October, the first working day after enactment, the application for the Windsor Bridge project was put under that legislation on the grounds of the damage it would do to heritage.

The Spackman Mossop Michaels Report of 2011 indicated "A new bridge and approach road would alter the character of the space by dominating the square, creating a strong visual separation between the open space and its important surrounding buildings."

Documentary issues:

1.) The RMS has failed to produce the final archaeological report prior to the production of project's SCMP.

2.) The Department of Planning has approved salvage in Area One prior to the completion of the project's SCMP.

3.) The RMS has failed to publish the research methodology for the archaeological investigations in 2016.

4.) The currently published methodology relates to the current archaeological activity, which is being conducted under a salvage approval.

5.) The Hawkesbury Region Sand Bodies Study has not been published.

Community Consultation:

This has been stressed all along.

"From EIS: 7.2.2 Direct Community Involvement

Community participation in development of the program is important and there should be opportunities for the community to have an involvement in the work as it is carried out. Excavation is not an option; issues of professional outcomes and safety would be compromised. However, there are other aspects of the work that could benefit from direct involvement. Artefact programs have been used successfully in the past to this end. There are other options that might be considered; carefully trained and informed community guides or "explainers" might be one option. Possibly instead of one or two open days during the course of the program an hour or two each week could be set aside for public viewing.

A number of options should be canvassed in the research design; they will need to be discussed with RMS with regard to safety and other issues before a final program is settled.

7.2.3 Information Exchange

An archaeological program of this type would attract a lot of attention, not just from the local community. Strategies should be put in place to allow information to be regularly accessible for any interested party. Options could include daily update boards on the fences around the site, a dedicated web-page or one associated with the RMS web-site, a small column for the local newspaper and hand-out leaflets amongst others."

None of these recommendations have been implemented. As a trained historian I offered my services to Project Gurgit Singh early on. I was told that these recommendations were just that, not mandatory. This has led to recent protests and hostility from the community who feel that they are being shut out of the exploration and findings. I was present at a meeting in December with the Project Director who admitted that the RMS had a public relations problem. Be that so, it is not up to the community to solve it for them. Under pressure from the Heritage Office, some photographs were put up on the RMS project page in December 2017.

With regards to the SCM Plan there were many errors and inconsistencies pointed out at Community meetings. This document gave the public no confidence in the accuracy of the research.: some examples are of fake history are:

- The SCMP listed a war memorial as being in Thompson Square. There isn't one.
- The SCMP stated the walkway under the bridge is closed. It is not and has been reopened for some time.
- The SCMP showed there was no roadway through Thompson Square from 1795 1841 even though it had a wharf & a punt, with roads leading to them.

- The SCMP showed there was no road to the bridge until 1894, although it had been opened to traffic from 1874.
- In the artists impression of the new bridge there are no hand rails to prevent pedestrians falling into the river. There are also no trucks using the bridge (see image) Thus the project fails to fulfil yet another of its key features: "improved safety for pedestrians and cyclists".



From RMS web site.

• The SCMP stated there are two smaller parkland areas, which will be re-joined by the project. In fact the Square will not be rejoined as the two reserves will be at different heights and access will be by sets of stairs. The disabled parking area was at the bottom of this set of stairs and a 1:4 slope. The two parkland areas never were joined historically so the use of the word "rejoined" is false.

My impression of this document was that it had been hastily compiled and not prepared with the level of due diligence I would expect.

6. Cost benefit analysis.

I object to the project as it represents **poor value for money.** It does not significantly improve the flood immunity that is required for the long term future. It does not demonstrably improve the traffic congestion that already exists and will not deal with the increased traffic arising from accelerated development occurring on the Northern side of the river.

Treasury documents indicate spending of around \$30 million prior to even a call for tenders. I assume much of this has been spent on reports, assessments, expert advice etc. They all have one thing in common. The conclusions that the project is seriously flawed, yet the NSW government continues to drive it on, taking scant notice of any of the recommendations in the various expert reports.

Initially the project was declared to cost approximately \$67 million. The last cost estimate is in excess of \$100 million. When asked what budget had been put aside for the project, the NSW Treasurer said "what ever it takes". Clearly there is no finite cost estimate and tax payers of NSW are being asked to fund an open ended project that will not meet its own objectives.

Archaeology:

By choosing to build through one of the most archaeologically rich sites from colonial Australia the expenses are very high. According to the RMS Contract site a new contract was issued to AAJV. As of 30.10.17 an additional \$3,602,390 contract was issued

Contract # D17.0000303641.0833

Contract Description:	Windsor Bridge Replacement Project - Salvage,
Archaeological Services	
Contract Commencement Date:	30/10/2017

InitialContract Period	20 wks
Revised Contract Period.	20 wks
Successful Tenderer:	Austral and AHMS Joint Venture
Address:	2/729 Elizabeth Street, Waterloo, NSW, 2017
Method of Tendering.	Limited (Single Invitation / Selective/WADs)
Awarded Value	\$3,602,390
Estimated Amount Payable	\$3,602,390

Back in July 2016, according to the RMS Contract Register, AAJV were awarded a contract worth \$551,188, but the estimated value of the contract is currently recorded as \$2,574,246 ... The likelihood of further increases has been acknowledged... "estimates" published fail to take into consideration known costs (for example, salvage) so it appears the costs are being underestimated to reduce public scrutiny. In addition, once a contract exceeds \$5 million it becomes a Class Three contract, requiring levels of disclosure that may be undesirable. Thus, the contract has been split into two and **over \$7,022,323 of taxpayers' money is being spent to destroy the Heritage of Thompson Square**. At the community consultation meeting we were told that it was "too costly to preserve many of the archaeological artefacts". Some "may" go to a museum but most would merely be recorded. Clearly the spending priority is on concrete rather than heritage.