Submission No 152

INQUIRY INTO IMPACT OF THE WESTERN HARBOUR TUNNEL AND BEACHES LINK

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Date Received: 14 June 2021

The Hon Daniel Mookhey MLC
Chair
Parliamentary Inquiry into the impact of the Western Harbour Tunnel and Beaches Link
14 June 2020

Dear Honourable Member Mookhey

This submission pertains to my concerns about the Western Harbour Tunnel (WHT) project and insufficient consideration of socioeconomic impacts and a better future for Sydney. As a marine scientist I am worried about impacts of the WHT construction to human and environmental health. The release of chemicals have high potential to poison the waters of Sydney Harbour along the corridor of the WHT, as well as from construction support sites including Berrys Bay.

I have read in detail the Environmental Impact Statement (EIS - Jan 2020), the Submissions Report in response to community concerns (Sept 2020) and the Golder-Douglas Contaminants Report (Dec 2017) which was classified as commercial-in-confidence through the EIS submissions period. Data from additional sediment analyses, needed due to the change in the tunnel alignment (undertaken by Royal HaskoningDHV), are not available. As detailed in the Sydney Morning Herald article, very high levels of banned toxic chemicals (tributyltin - TBT, dioxins, arsenic, mercury) occur in sediments in the area of the WHT project. These have the potential to re-enter the environment as a result of construction activities. That the data on sediment contaminants were not available to the community during the submission period shows that this project was not subject to appropriate levels of transparency. I encourage the Parliamentary Inquiry to examine the public submissions to the EIS, nearly 1000 individual efforts with many objections to the WHT. Most of the comments made in these submissions were ignored in the Submissions Report.

Inadequate consideration of risks to human and environmental health due to disturbance of contaminated sediments.

- In the Environmental Risk Analysis (ERA - Appendix A, Submissions Report) and Revised Environmental Measures (Part D, Submissions Report) there are measures to monitor the sediment plume but none to monitor the dissolved toxicants that will be released from pore water and sediment and which pose a high risk of poisoning the environment. The toxicity of the chemical mixtures to marine life and human health was also not considered in the ERA.
- For community assurance, monitoring of dissolved contaminants would have to be done in real time with immediate reporting. The public has a right to know if they need to curtail on and in water actives (e.g. local sailing and rowing clubs, kayakers, swimmers at local baths).
- The WHT project did not avail of up to date knowledge of Sydney Harbour. There is a wealth of published data on sediment contaminants – including in the area of the project. The toxicity of Sydney Harbour sediments due to past industrial activity (e.g. Waverton Gasworks), is well-documented through decades of research, as reviewed by the NSW Parliamentary Research Service (Montoya, 2015). The NSW Government has cautioned against consumption of fish caught in the WHT area (since 2006) due to the presence of high levels of dioxins which are highly carcinogenic. Biocides in the sediment (e.g. TBT, copper) kill marine life. The toxins in the sediments are persistent chemicals and will be with us for hundreds of years. Considering the regulatory policies of the NSW Government, it is surprising that this issue has not been in sharper focus.
- Other pollution risks did not feature in the EIS – including microplastics, pathogenic bacteria or resting cysts that are likely to be in sediments in the WHT corridor that might be released during dredging and pose a human health risk and may result in a harmful algal bloom.
- Shallow silt curtains and use of the clamshell dredge (ERA-App C1) will not prevent movement of contaminated particulate fines or toxicants in water because the area is hydrodynamic. In my experience, wind, wave and tidal activity in the harbour between Yurulbin Point and Waverton would promote dispersal of dredge plumes. The proponents do not have contingency management plans for extreme weather events. Pollution and environment impacts such as fish kills and human exposure seem inevitable.

- Recent studies show that our cleaner Sydney Harbour supports a great diversity of species and we have visits from iconic species including whales and penguins (MEMA 2014). The WHT project could reverse these gains.
- I am also concerned as to the offshore dumping of sediment to ensure that this is not contaminated.

Socioeconomic considerations: Inadequate consideration of the alternatives and impacts to the community.

- The business case for this very costly project was never provided. This is an insult to the people of NSW and needs to be considered now in light of the lessons learned during the Covid pandemic with many people working remotely. For my family, friends and colleagues, this has led to a better work - life balance, better health and a big reduction in household costs associated with transport and commuting time. There is great resistance to return to the previous model. Even if only 1-2 work days a week are remote, this would be a significant reduction in road travel and need for projects such as the WHT.
- Alternative transport options: Public transport was not sufficiently considered. The WHT project would create another toll road – another tax to the people of NSW.
- The project by design would result in more cars on the road causing a significant increase in emissions and contribute to climate change. If the NSW Government is serious about the net zero emissions goal, the need for the WHT and associated projects should be reassessed. We need serious action on climate change in a smarter approach than digging tunnels – with better public transport as the key.
- The EIS does not adequately address the human health concerns including the impacts of noise, offensive odours, air quality and exposure to contaminated sediments through aerosol spread of transported/stored sediment and decrease in air quality due to use of unfiltered air stacks.
- The community is rightly concerned about vibration and potential damage to homes as casued by tunnelling during WestConnex construction. The contention that only properties within a 50 m distance from tunnelling will be impacted is not convincing. In Haberfield, homes over 250 m away from the closest construction experienced cracking.

In closing, I have concerns for Sydney Harbour which after 100+ years of being used as a toxic dumping ground has recovered and continues to improve to the point that it now supports a great diversity of marine life. Sydney Harbour is a resource to treasure now and for future generations. I also have concerns as to the direction the WHT and related projects are taking the people of Sydeny. We are at a critical juncture in respect of climate change. For a more sustainable lower emissions future for NSW, alternatives to the WHT and big transport projects must be considered as an utmost priority.

It is also clear that the Environmental Impact Statement for the WHT was not prepared in accordance with the Secretary's Environmental Assessment Requirements and shamefully the Submissions Report did not adequately incorporate public concerns. The Environmental Risk Analysis will need to be redone with special attention to the design and management of the dredging program and construction support sites, including offshore disposal, contaminated sediments and risk of poisoning the environment.

If you have any questions do not hesitate in getting in contact with me.

Dr Maria Byrne

MEMA Sydney Harbour Background Report (2014) Sydney Institute of Marine Science prepared for NSW Department of Primary Industries

Montoya (2015) Pollution in Sydney Harbour: sewage, toxic chemicals and microplastics. NSW Parliamentary Research Service Briefing paper 03/2015