

Contamination Objections

I am writing to formally object to the Northern Beaches Tunnel plans and intent. My reasons for objecting are outlined below.

I object for the future of this city (why build road tunnels when we should be building public transport infrastructure? Why remove much needed and rapidly diminishing green space), however most importantly I object for the future of our children. What legacy are we leaving them?

1. Areas for Objection

- Contaminants such as heavy metals and PFAS have been detected in Middle Harbour – these contaminants are dangerous to human health - and many of them have been found above 'safe levels'(Table 1, Annexure C, Appendix F). Very limited sampling was conducted and further testing was not continued when levels of contaminants were found that are harmful to human health.
- Contaminants have been found in groundwater and surface water around the tip site in Flat Rock Gully and there is a risk identified that these may move down the gully as work proceeds
- Large amounts of wastewater will be produced from both construction and operational activities. Wastewater will be treated and flushed down creeks for example 117,000 L per day will be released down Flat Rock Creek via Tunks Park and 296, 000 L down Willoughby Creek from the Cammeray Site via Primrose Park. Specific methods regarding how the water will be treated given the contaminants detected and listed as likely ie) asbestos is not clear.
- 10,000m³ of contaminated sediment will be barged out of Middle Harbour past Clontarf and Balmoral Beaches to be dried out before being trucked to a licenced facility. The drying point is not yet known or the disposal site. Object to contaminated sediment being barged past beaches and the risk of spills.
- There is no remediation plan or budget for compensating for spills or accidents
- The risk of workers coming into contact with the contamination is rated as moderate to high and the EIS states more testing is needed to quantify the risk.
- 500m³ of stockpiled spoil is permitted outside the shed according to the EIS; 4500m³ is permitted outside the Cammeray Golf Course Site. Given that contaminants have been identified and the EIS states that dust is "difficult to contain" even with the best mitigation measures in place this is a considerable risk particularly to children's sport that is played adjacent to the Flat Rock and Cammeray Sites
- There was a Declaration of Remediation Site under the Contaminated Land Management Act in 2003 in relation to part of Tunks Park due to contaminated fill material, sediment and groundwater posing a danger to human health and presumably originating upstream from the old tip site in Flat Rock Gully - object to the risk of downstream environments becoming contaminated again.
- Silt curtains don't go all the way to the seabed , there is a risk of contamination release into Middle Harbour and sedimentation diagrams show a wide spread of sedimentation deposits. The Western HarbourTunnels conditions allowed for a 50

mtr spill zone. Middle Harbour plays host to many children's activities at Northbridge Baths, Clontarf and multiple sailing and foreshore clubs. The release of contaminants is not an option.

- Silt dispersion modelling in relation to contaminated sediment has been done for a period of '1.2' weeks (see Fact Sheet) but this is less than the time required to remove contaminated sediment. The dredging program is forecast to be 37 weeks. The modelling should cover the time it will take to remove the contaminated sediment. **This is another reason to do a revised EIS and put it on exhibition.**
- The Sydney Metro - Chatswood to Sydenham EIS states that an immersed tube design was assessed and not selected due to the high contamination risks to Sydney Harbour. Ask that another crossing option be investigated given this was the case and they are proposing an immersed tube for such a sensitive area of Middle Harbour where there are known contaminants.
- The Northbridge Peninsular and Northbridge Baths have not been marked as receptor points when assessing human health. Given that Northbridge is placed between the Flat Rock contaminated dive site (where up to 7 roadheaders will be in operation) and the Middle Harbour contaminated site during construction and between 3 unfiltered emissions stacks when operational it would be appropriate for a specific health assessment to be completed.
- The Health risk assessment has been completed on the basis of a best case scenario of all going to plan. Health risks should be reassessed to account for human error and the probability of a spill of contaminated spoil and/ or sediment.
- The risk of contaminants moving down from the tip site as the capping is disturbed and pockets of leachate are released has not been assessed in terms of risks to Human Health and yet the EIS acknowledges the risk of run off to surrounding waterways and Middle Harbour. The EIS acknowledges the risk of workers coming into contact with contamination but does not assess the potential of bushwalkers, sporting groups, sailing clubs etc coming into contact with contaminants.

2. I am asking you to

- A reissue of the EIS following Phase 2 assessment: All further testing mentioned in the EIS should be done now and the results plus the results of all testing already complete, released. The revised EIS should be exhibited so that people can comment on the adequacy of proposed management strategies and the likely impact to the community based on use of the area.
- A full risk assessment prior to approval and sign off. Health risks associated with run off, spills and risk to Northbridge should be included ie worst case scenario not best case health assessment as currently assessed.
- Abandonment of the immersed tube construction method at Middle Harbour and its replacement with a tunnel through bedrock which would not disturb the contaminated sediment
- Real time/ Alert Style Air Quality Monitors at Bicentennial Reserve to alert the community to air quality risks born from dust, disturbance or diesel
- Real time/ Alert Style Monitoring at Northbridge Baths

- Silt curtains which go to the seafloor and are not permeable rather than part of the way
- Restriction of project related shipping movements to an agreed schedule of times when the tides ensure that the sand bar at the entrance to Middle Harbour will not be disturbed by such movements
- Wastewater to be treated via a method other, or in addition to, sedimentation only to ensure that the full range of dangerous chemicals identified are properly removed.
- A landfill gas study in compliance with Hazardous Ground Gas Guidelines for construction and operation of tunnel (PDF page 78 Appendix M). It is noted the nominated guidelines have been superseded and the updated guidelines should be used
- The EPA to be formally notified, as required under the Contaminated Lands Act, of the possibility of contaminated land (at Flat Rock Reserve and surrounds) contaminating neighbouring land ie North Sydney Council - Tunks Park and Middle Harbour

I implore you to not go ahead with building of this tunnel.

Kind regards

Willoughby resident