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Reference: 003-20

30 March 2020

Re: Submission of the Western Harbour Tunnel and Warringah Freeway Upgrade

To whom it may concern,

The Sydney Coastal Councils Group (SCCG) is a regional organisation of Councils that advances sustainable management of Sydney's urban coastal and estuarine environment. We currently comprise nine member Councils who represent 1.3 million Sydneysiders.

Thank you for the opportunity to comment on the proposed Western Harbour Tunnel and Warringah Freeway upgrade. We recognise the need to provide for additional road network capacity and improve connectivity to alleviate Sydney's traffic congestion. However, we caution that there could be significant risks to public health from the disturbance of toxic sediments on the harbour floor unless appropriately managed and monitored.

This proposal is of high relevance to the SCCG as it has the potential to directly impact upon three of our member Councils (Inner West, North Sydney and Willoughby) and indirectly affect other member Councils' that are downstream of the construction activities.

Currently, the SCCG is project managing the development of a Greater Sydney Harbour Coastal Management Program (CMP) required under the *Coastal Management Act 2016*. A key focus of this CMP will be on improving waterway health in the catchment. It is therefore vital that the project considers the development of this policy when finalising its environmental controls for the proposed works and we welcome further consultation with you.

Protecting Sydney Harbour's water quality needs to be a priority

Toxic sediments derived from past industrial activities and storm water overflows, have built up on the harbour floor. A range of chemicals can be found in these sediments including dioxins, heavy metal and pre- and poly-fluoroalkyl (PFAS) chemicals. These sediments, if mobilised into the water column, can severely degrade the harbour's water quality and pose significant risks to public health and marine biodiversity up and downstream of the construction activities.

Previous testing by the NSW Government revealed elevated levels of dioxins in fish and crustaceans across Sydney Harbour and consequently imposed a ban on all commercial fishing. Restrictions on recreational fishing are also in place and include the advice that no fish or crustaceans caught west of the Sydney Harbour Bridge should be eaten.

Toxic sediments can also impact upon those swimming in the harbour or in ocean pools that are fed by the harbour's waters. Dioxins are known carcinogens which can cause birth defects whilst PFAS has been shown to cause reproductive and immunological effects in laboratory animals.



Minimising toxic sediments on the bed of Sydney Harbour being released into the water column is therefore vital. The removal of approximately 140,000 cubic metres of toxic sediments during the construction of the tunnel requires stringent management and monitoring as well as ensuring reporting to those that manage the community use of the harbour.

Due to the increase in impervious surfaces and permanent infrastructure, the project will likely result in a marked increase in stormwater runoff, as well as a reduction in the quality of runoff from construction sites. The changes in quantity and quality of stormwater runoff will cause adverse effects to recreation, biodiversity and amenity of Sydney Harbor. Water Sensitive Urban Design is a potential mitigation strategy that provides an opportunity to harvest and treat stormwater from surface roads and construction sites to be used as a non-potable water resource for Councils.

It is appreciated that comprehensive assessment and modelling of potential adverse impacts have been done and that the construction activities will involve the adoption of advanced techniques to minimise harm. These techniques include the use of a closed environmental bucket to avoid the spread of potentially contaminated material, silt curtains and the removal of contaminated sediment off-site.

However, SCCG feels that the following recommendations should also be adopted:

1. Public release of the exact concentrations of the chemicals in the sediments. It is understood that these are 'commercial in confidence' and not being released to the public. We believe that transparency is needed to ensure that the severity of the risk to the public can be scrutinised by a range of stakeholders, not just the state government.
2. Adoption of larger silt curtains that are pinned to the sea floor. Currently only shallow silt curtains are proposed which could enable mobilised sediments to easily escape during excavation activities.
3. Councils on the harbour be immediately alerted where water quality targets are exceeded. This will enable Councils to immediately alert their communities about the public health risks of swimming and to implement appropriate controls particularly for the maintenance of their ocean pools.
4. The impacts associated with dredging including the resuspension and dispersal of harmful contaminants including dioxins, heavy metal and pre- and poly-fluoroalkyl (PFAS) across the wider catchment must be considered.
5. Incorporate Water Sensitive Urban Design (WSUD) into stormwater management. This will involve complying with 'Water sensitive urban design guideline: Applying water sensitive urban design principles to NSW transport projects' to set appropriate benchmarks for appropriate land use. Where possible, reference to the Roads and Maritime Services 'Water sensitive urban design guideline 2017 (2017)' and 'Beyond the Pavement – RMS Urban Design Policy, Procedures and Design Principles (2014)' to be acknowledged to ensure all associated land use impacts are being considered in line with internal Roads and Maritime Services Urban Design policy and aspiring to be best practice in regard to WSUD.
6. Provide water quality data for use in the Greater Sydney Harbour Coastal Management Program (CMP). SCCG requests that this data be made available to



the Greater Sydney Harbour CMP project team so that a stronger evidence base for managing the harbour and its catchment can be established.

Minimising impact on marine biodiversity

The EIS predicts that impacts to marine biodiversity living within and surrounding Sydney Harbour are expected to be minimal. However, as discussed above, mobilising toxic sediments can have a detrimental effect on water quality and consequently the biota that lives within the harbour.

Mobilised toxic sediments could affect the availability and suitability of food sources for threatened biota including the Little Penguin and White-bellied Sea Eagle. Other marine threatened species such as the Black Rockcod, New Zealand Fur Seal and White's Seahorse are also potentially placed at risk as a result of the project. Refer to recommendations above regarding reducing impacts on water quality.

SCCG strongly supports the proposal to rehabilitate and restore subtidal rocky reef and intertidal rocky shore habitats damaged by the project. To offset the impacts to marine biodiversity, we recommend:

7. The use of 'living seawalls', an initiative led by the Sydney Institute of Marine Science, be adopted to offset the impacts to marine biodiversity. Living seawalls have been installed at two of our member Councils and have been shown to be a successful for increasing marine biodiversity.
8. Impacts to sea grasses to be avoided where possible due to the small size of remaining patches in areas such as Yurulbin Park. Otherwise, replanting of seagrasses, such as the habitat between Yurulbin Park and Sydney Harbour South cofferdam, must be required.

Minimising impacts on microbats

The project is located very close to a known Eastern Bent-wing Bat (a listed threatened species) roost site at the Coal Loader in North Sydney. This roost site has not been adequately considered in the project siting. SCCG is primarily concerned with the vibration impacts upon this species and the lack of mitigation measures proposed. We are also concerned that artificial lighting may negatively impact upon microbats. SCCG therefore recommends:

9. Department of Planning, Industry and Environment (Environment, Energy and Science and the Regions, Industry Agriculture and Resource divisions), Councils and qualified expert in microbat biology to be engaged to prepare a detailed threatened species assessment be done to determine the level of impact on the Eastern Bent-wing Bat and appropriate mitigation measures to be imposed.
10. Identification of other Eastern Bent-wing Bat roost sites and impacts on the Southern Myotis Bat to also be considered.
11. Artificial lighting impacts on microbats be minimised by ensuring construction and operation activities comply with the Commonwealth's *National Light Pollution Guidelines for Wildlife* (2020). The Guidelines note the effect artificial light can have on food availability and behaviour of insectivorous bats.

If you have any queries, please contact me by email at executiveofficer@sydneycoastalcouncils.com.au or by phone (02 99761502).



Yours sincerely,



Sarah P Joyce

Executive Officer

