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Reference: 008-21 SJ

1 March 2020

Submission of the Beaches Link to Gore Hill Freeway Connection

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.

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

Thank you for the opportunity to comment on the proposed Beaches Link and Gore Hill Freeway Connection. 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 the following values because of construction and operation activities of the project:

- Bushland and biodiversity
- Groundwater
- Water quality
- Marine biodiversity

It should be noted that these are concerns of all members of the SCCG, and not just those councils in the project area, particularly as our key goals identified in [SCCG's 2019-2029 Strategic Plan](#) are:

2. waterways and the foreshore are protected and healthier
3. marine biodiversity is protected in the bioregion.

We would also like to raise the importance of the work being done to improve waterway health in the catchment through the development of a Greater Sydney Harbour Coastal Management Program which is required under the *Coastal Management Act 2016*. Given the potential impacts of the proposal, it is 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.

1. Bushland and biodiversity

The SCCG would like to emphasize the concerns raised by our two members – Willoughby and Northern Beaches regarding the clearing of native vegetation, particularly in the vicinity of:

- Wakehurst Parkway where approximately 15ha are proposed to be cleared
- Flat Rock Gully where a construction support sit will destroy a native restoration site.

This clearing may have detrimental impacts to biodiversity through loss of habitat and habitat fragmentation. It may also indirectly impact water quality and marine biodiversity in the catchment if not appropriately managed during construction and operation – see water quality and marine biodiversity recommendations below.

Recommendations

To minimize impacts upon bushland and biodiversity and reduce indirect impacts to water quality and marine biodiversity, the SCCG recommends:

1. The Wakehurst Parkway east construction support site be surveyed prior to any excavation so the original topography of the site can be restored as close to original condition as possible. The site should be handed back to Northern Beaches Council to be included in Manly Dam, and must be re-planted with endemic species, and all landscaping and revegetation work must have a three maintenance period provided by the TfNSW partner delivering the project, with maintenance frequency to be determined, with intention being a rehabilitated and regrown site.
2. During construction, a working group is established including Northern Beaches Council to manage the outcomes of sediment controls and site management, to include periodic inspections throughout to ensure controls have been maintained until surfaces are stabilized at the completion of the project.
3. A more detailed assessment is done of the existing uses of Flat Rock Gully including passive recreation use, wildlife corridor and vegetation rehabilitation and that the project appropriately addresses the impacts of construction on all these activities.

2. Groundwater drawdown

The proposal has the potential to affect water dependent ecosystems by drawing down on the water table. There are many environmentally sensitive areas within the project area including known locations of threatened and protected species and communities. As raised by Northern Beaches Council, of particular concern are the drawdown and impact of baseflows to Burnt Bridge Creek and no proposal for tunnel lining to reduce this impact. Willoughby Council is also concerned about salinity and total dissolved solids in the Flat Rock Drive plant discharge.

Recommendations

To minimize impacts of groundwater drawdown in the catchments, it is recommended that:

4. All extracted and treated groundwater should in order of priority – 1) be injected to recharge the source aquifer it came from 2) discharged to creeks that the groundwater aquifer would have fed. Groundwater must not be extracted from one system and discharged to another.
5. Appropriate stabilization of at-risk creek banks must be addressed. The possibility of the treated water be detained to avoid discharge during peak flood flows should be investigated to reduce downstream impacts.
6. A condition of any approval be included requiring TfNSW to provide Council with a detailed analysis and plan for impact mitigation to ensure there will be no detrimental effect on groundwater quality during both the construction and post-construction/operational phases of the Project.

3. Water quality

The project is within the broader Sydney Harbour and Parramatta River catchment and the Northern Beaches Lagoons catchments. The proposal has the potential to negatively impact upon water quality in the catchment and its waterways including Middle Harbour, Bantry Bay, Manly Dam, and Flat Rock and Willoughby Creeks.

Maintaining water quality in these areas is not only important for ecological health but also to maintain the high social and economic values these waterways provide to the Sydney community.

Swimming, boating and fishing are extremely popular recreational activities in the area. Some of the nation's most expensive real estate also occurs in the area where views of pristine waterways help drive real estate prices.

However, the SCCG is concerned regarding the predicted impacts upon water quality from both construction and operation of the proposal.

Construction Impacts

The work within Middle Harbour includes extensive excavation, dredging and shoreline and water-based movement and activities. The SCCG would like to emphasise the concerns raised by:

- Northern Beaches Council concerning sediment pollution not being identified as a high risk
- Willoughby Council's concerns of the dredging impacts (potentially release plumes of contaminated sediments) and water turbidity detrimental consequences upon human health, the marine life and existing water flow of Middle Harbour.

There are also concerns in relation to the site disturbance of former rubbish disposal sites, due to the potential for exposing hazardous materials, likely to have negative impacts on site stability and hydrology, allowing leachate to penetrate to the lower catchment and eventually Middle Harbour with follow on effects.

Similarly, the abundances of microplastics in the sediment have not been quantified or considered as at risk of resuspension during dredging activities.

Operational Impacts

The project would provide water quality treatment that meet the operational water quality targets based on the Sydney Water's Stormwater Quality Targets Policy; however, there is a need for additional modeling investigation to understand the project water quality requirement to meet stand in particular need of clarification of the Music model methodology and scenarios that clear represent the existing conditions. It is imperative that all stormwater run-off from the project site must be of appropriate quality and quantity before it enters the natural waterway and/or Councils or Sydney Water's infrastructure. The overall impact of the project on the catchment's creek geomorphology and water quality must also considered, in addition to capacity and flood risk.

Recommendations

To minimize impacts upon water quality, the SCCG recommends:

7. The Wakehurst Parkway east construction support site be surveyed prior to any excavation so the original topography of the site can be restored as close to original condition as possible. The site should be handed back to Northern Beaches Council to be included in Manly Dam, and must be re-planted with endemic species, and all landscaping and revegetation work must have a three year maintenance period provided by the TfNSW partner delivering the project, with maintenance frequency to be determined, with intention being a rehabilitated and regrown site.
8. During construction, a working group is established including Northern Beaches Council to manage the outcomes of sediment controls and site management, to include periodic inspections throughout to ensure controls have been maintained until surfaces are stabilized at the completion of the project.
9. Councils to receive a detailed analysis and plan for impact mitigation and confirmation of how the disturbance and leachate of the contaminated fill at Flat Rock will be managed as well as how the soil stockpiles/excavations associated with the project will be managed and tested for asbestos.
10. The need for a community hotline and performance-based response system to address community concerns specifically related to stormwater issues such as erosion, water quality, flooding risk and sediment control matters.

11. An independent company be employed to conduct water quality testing to ensure targets for TDS and TSS of the three wastewater plants (Flat Rock Drive, Punch Street and Gore Hill Freeway) are met.
12. 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.
13. 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.

4. Marine biodiversity

There are potential impacts to marine biodiversity in Middle Harbour between Northbridge and Seaforth due to the use of submerged tunnels and the requirement for significant dredging and sediment disturbance of the harbour floor. Water quality impacts from construction and operation of the tunnel may also have detrimental impacts on marine biodiversity in adjacent areas, as discussed above.

According to the EIS, a range of marine biodiversity values occur in the study area including seagrass, saltmarsh and mangrove habitat and threatened biota including the White's seahorse, Black Rockcod and the endangered Manly population of the Little Penguin. A range of hazards to these habitats and species have been identified including loss of habitat, turbidity, sedimentation, mobilization of contaminants and underwater noise. Mitigation measures are proposed to minimize impacts which are largely supported, although SCCG would like to raise the following concerns.

Impacts upon seagrasses

There is a lack of clarity of whether seagrasses will be either directly or indirectly (from excessive turbidity and sedimentation). Implementation of exclusion zones and monitoring is proposed but a lack of detail is given on these two measures. Seagrasses can be particularly sensitive to turbidity and sedimentation, and as they are important habitat for a range of species (including the endangered White's Seahorse and the endangered population of the Little Penguin at Manly) and maintaining water quality, greater effort is needed to protect seagrasses in the study area.

Recommendation

To minimize impacts to seagrasses and threatened biota that depend upon them, the SCCG recommends:

14. Detailed mapping of seagrasses is done for the entire study area immediately prior to construction. This is to ensure exact locations are recorded and if there any changes in locations between now and when construction occurs, these can be recorded, mapped and avoided where possible.
15. The use of full length silt curtains used during construction to minimize the movement of fines in sensitive seagrass locations

Mobilisation of toxic sediments

Mobilised toxic sediments could affect the availability and suitability of food sources for threatened biota including the Little Penguin, White-bellied Sea Eagle and White's Seahorse. Although measures are proposed to reduce their mobilization, including the use of a closed environmental bucket during excavation and multiple silt curtains, the potential for impacts are still present.

The SCCG believes that a water quality monitoring program is needed through the construction phase both within the study area and up and downstream. See water quality recommendations above.

If you have any queries, please contact me by email at executiveofficer@sydneycoastalcouncils.com.au or by phone (0407 733 075)

Yours sincerely,

A handwritten signature in black ink that reads "Joyce". The signature is written in a cursive style with a large initial 'J'.

Sarah P Joyce

Executive Officer