



Transport for NSW

Beaches Link and Gore Hill Freeway Connection

Cover note

Information within this report regarding the proposed Port of Newcastle construction support site (BL15) has been superseded by an Addendum to the preferred infrastructure report lodged with the Department of Planning and Environment in June 2022. Please refer to Section 9 – Addendum – Treatment and loadout of dredged and excavated material not suitable for offshore disposal for further information



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7 – Conclusion

7 Conclusion

This preferred infrastructure report has been prepared to address further assessment requirements requested by the Department of Planning, Industry and Environment, in accordance with Section 5.17(6)(b) of the *Environmental Planning and Assessment Act 1979*, and:

- a) Assesses alternative locations, social and environmental impacts of the proposed construction ancillary facility located at Flat Rock Drive (BL2) and assesses the construction impacts to recreational users of Spit West Reserve (BL9)
- b) Assesses the impacts to Middle Harbour from the introduction of a sill (due to the placement of immersed tube tunnels) including appropriate measurements/monitoring data and impact assessment
- c) Assesses the treatment and handling of contaminated material and any temporary onshore transfer/handling sites associated with the proposed dredging of Middle Harbour
- d) Identifies local road intersections impacted by traffic changes as a result of the operation of the project. Consideration and assessment of the impact of those changes and identification of measures to mitigate the impacts was also required.

Section 2 discusses the feasibility of alternative locations for the Flat Rock Drive construction support site (BL2) and the feasibility of relocating the Flat Rock Baseball Diamond if the option to use Option A (Flat Rock Baseball Diamond) as the construction support site for the project was pursued. A comparative assessment of using Option A (Flat Rock Baseball Diamond) or Option B (Flat Rock Reserve) as Flat Rock Drive construction support site (BL2) is also provided with consideration of social and environmental impacts. The comparative assessment showed that on balance Option B continues to be the preferred location for the Flat Rock Drive construction support site (BL2). Option B avoids direct impacts to existing recreational facilities that are in high demand for community use and would be further from recreational users of Willoughby Leisure Centre and Bicentennial Reserve. Due to its increased distance from Willoughby Leisure Centre, Option B would result in reduced cumulative impacts compared to Option A during concurrent construction works with the alterations and additions to the existing pool hall of Willoughby Leisure Centre. Additionally, Option A would be located in closer proximity to existing contamination being located directly on top of the former landfill site which would result in a greater human health risk associated with the potential release of landfill gases compared to Option B. Option A impacts would continue for 3-4 months longer than Option B impacts due to a longer tunnel access decline and commencement of excavation of the mainline tunnels further from Middle Harbour. Following construction, Flat Rock Drive construction support site (BL2) will be rehabilitated in line with the land use zoning with vegetation and landscaping determined in consultation with Willoughby City Council and the community and will be implemented as soon as practicable with complimentary social impact offsets including the development of a Flat Rock Drive Social Value Strategy (as required by new environmental management measure LP8 and SE6, refer to Appendix C of this preferred infrastructure report).

Section 3 assesses the reconfiguration of the Spit West Reserve construction support site (BL9) in response to Mosman Council feedback to maintain access for the community and further minimise the impact of the project on recreational users of the reserve. An assessment of the reconfigured Spit West Reserve construction support site (BL9) shows that impacts on recreational users would be reduced due to the reconfiguration of the site as facilities for junior sport would now be available throughout construction and the site would be located further away from the Mosman Rowing Club. Impacts of the reconfigured site would be less than or generally consistent with impacts described in

the environmental impact statement and would be managed through the implementation of the existing environmental management measures described in Appendix C of this preferred infrastructure report. Additional consultation with Mosman Council and recreational users of the reserve has been carried out and a commitment for future consultation during construction is now included as new environmental management measure SE5 (refer to Appendix C of this preferred infrastructure report).

Section 4 summarises the modelling and additional assessment carried out to confirm the findings in the environmental impact statement regarding potential impacts of the Middle Harbour crossing immersed tube tunnels on dissolved oxygen and other water quality parameters due to reduced tidal flushing and mixing. Modelling has shown the immersed tube tunnels would only slightly decrease concentrations of dissolved oxygen near the bed of the harbour after heavy rain from what would be expected to occur under natural conditions and would not substantially increase the duration or extent of occasionally naturally low dissolved oxygen in the harbour. The model also predicted very minor changes to near bed salinity and temperature due to reduced tidal mixing and flushing. The magnitude, duration, and spatial extent of the effect of the immersed tube tunnel sill to benthic fauna in these areas would not be measurable beyond natural impacts from the occasionally low dissolved oxygen events. These findings support conclusions made in the environmental impact statement and were discussed with Northern Beaches Council and the Department of Planning, Industry and Environment prior to lodgement of this preferred infrastructure report. Recommendations for pre-construction monitoring were included in the additional assessment and have been included as new environmental management measure WQ20 (refer to Appendix C of this preferred infrastructure report). This pre-construction monitoring is scheduled to commence in Q4 2021. The need for further modelling or post-construction monitoring of potential dissolved oxygen changes will be determined following the completion of the pre-construction monitoring.

Section 5 assesses a proposed loadout facility at the Port of Newcastle (Port of Newcastle construction support site (BL15)) associated with the removal of sediment from the bed of Middle Harbour. Dredged and excavated materials not suitable for offshore disposal would be mixed and treated to make the material spadable (a consistency which allows the material to be spaded or shovelled) within barges at Middle Harbour and then the material would be transported from Middle Harbour to Port of Newcastle construction support site (B15). The loadout facility would be required for up to four weeks in early 2025. The assessment also includes the feasibility of other locations considered for the loadout facility. Mixing of sediment within the barge would be carried out within the deep draft silt curtain enclosure at Middle Harbour, as required by environmental management measure WQ16 (refer to Appendix C of this preferred infrastructure report). As a precaution, once docked at Port of Newcastle construction support site (BL15), the barge would also be surrounded by two to three metre deep silt curtains for the duration of the loadout activity (as required by new environmental management measure WQ21 refer to Appendix C of this preferred infrastructure report). The assessment has determined that all other potential impacts would be managed through the implementation of the environmental management measures presented in Appendix C of this preferred infrastructure report, which would be sufficient to manage the treatment and transport of dredged material not suitable for offshore disposal from Middle Harbour to Port of Newcastle construction support site (BL15).

Section 6 provides a summary of further assessments carried out on the operational traffic impacts of the project on road intersections in the vicinity of the tunnel to surface connections at the Warringah Freeway and surrounds, Gore Hill Freeway and Artarmon, Balgowlah and surrounds, and Frenchs Forest and surrounds study areas. The assessment confirms that the project is not expected to adversely impact the performance of the Gore Hill Freeway and Artarmon study area and Balgowlah and surrounds study area. Refined modelling of the Warringah Freeway and

surrounds study area and Frenchs Forest and surrounds study area indicates that the impacts presented in the environmental impact statement can be further mitigated by network management and the optimisation of traffic signal operations. However, this analysis also illustrates that road network upgrades and management alone is not expected to be able to fully mitigate impacts, which would require complementary public transport and other demand management initiatives through other Transport for NSW established forums and processes beyond the scope of the project.

The Department of Planning, Industry and Environment will, on behalf of the NSW Minister for Planning and Public Spaces, review the environmental impact statement, the submissions report and this preferred infrastructure report for the project. Once the Department of Planning, Industry and Environment has completed its assessment, a draft environmental assessment report will be prepared for the Secretary of the Department of Planning, Industry and Environment, which may include recommended conditions of approval. The assessment report will be provided to the NSW Minister for Planning and Public Spaces, who will then make a determination of the project.