

18 December 2019

Director Infrastructure Projects
Transport Assessments
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Reference: SSI-9737 Sydney Gateway – Conditions of Approval

Thank you for the opportunity to review and comment on the Environmental Impact Statement for the proposed Sydney Gateway Project. The following are our comments.

The proponent must obtain endorsement and/or approval from Sydney Water to ensure that the proposed project does not adversely impact on any existing water, wastewater or stormwater assets, or other Sydney Water asset, including any easement or property.

Sydney Water wastewater and potable water assets

- Sydney Water owns and operates trunk and reticulation assets located within and outside the project boundary for the proposed Sydney Gateway Project. These assets provide wastewater and potable water services to our customers in the affected area.
- Sydney Water, during and post works of the Sydney Gateway Project, must continue to provide these services as per Sydney Water's Operating Licence and regulatory requirements.
- Sydney Water encourages early consultation and discussions with TfNSW for these works. We also recommend that all relevant information, plans, needs specifications for these assets are requested from Sydney Water.
- The Environmental Impact Statement states there is a need for potable water use within and for the project. The availability and volume of these flows will depend on system capability and will be confirmed during detail design.
- Sydney Water reserves the right to assess, based on final project layout and construction designs prepared by the project team and or their contractors, the impacts on our assets located within the project scope, and the potential needs for adjustments funded by the project to accommodate accessibility of our pipes for operational and maintenance purposes, new pavement locations and changes to structures.
- Sydney Water requires safe unrestricted access to our assets throughout the life of the project. We need to ensure these assets are fully operational at all times.
- Sydney Water recommends early consideration for staging and timing design work and delivery of the project. This is very critical to allow sufficient time for Sydney Water to schedule and program shutdowns and reconnections of our assets. This ensure that Sydney Water continues to meet its Operating Licence and most importantly maintain

services to our customers. A Water Service Coordinator can assist you with this process.

- Sydney Water Asset Adjustment process, found on the Sydney Water website, should be adhered to for the relocation, adjustment and or protection of our assets. Additionally, if assets are required to be changed, the environmental approval will need to cover any works identified that may fall outside of the project boundary, but be a result of the project works.
- Any trade waste licence request, most notably for removal of leachate, will need to meet Sydney Water's requirements.
- The environmental approval needs to meet the discharge protocols of chlorinated water due to watermain shutdown and reconnection of live Sydney Water assets that will need to be adjusted.
- Amplification of assets may be required to facilitate future growth along the development corridor. This will be assessed as adjustment applications are referred to Sydney Water for review. Sydney Water consultation is required early to ensure any amplifications are identified, planned and confirmed early.
- Chapter 3 Statutory context and approval, November 2019 Section 3.5 Other NSW Legislation – please add **Sydney Water Act 1994**.
- Chapter 8 Construction, November 2019 Section 8.7 Utility Works – the proponent **must** consult with and **obtain approval** from Sydney Water before commencement of works.

Sydney Water stormwater assets

- Close consultation with Sydney Water during the concept & detailed design, construction and operational phases of the project must be required to ensure that the objectives are met and that the impacts to Sydney Water stormwater assets is minimised, or improvements to the receiving environment can be achieved.
- Strict requirements for Sydney Water's stormwater assets apply to this project. TfNSW should ensure that satisfactory steps/measures been taken to protect existing stormwater assets, such as avoiding building over and/or adjacent to stormwater assets and building bridges over stormwater assets. TfNSW should consider taking measures to minimise or eliminate potential flooding, degradation of water quality, and avoid adverse impacts on any heritage items, and create pipeline easements where required.
- Sydney Water support the preferred management options TfNSW advise in Table 6-1 in the Statement of Heritage Impact regarding management of any impacts to Alexandra Canal bank material. Sydney Water request that TfNSW consult with Sydney Water on options for remediating canal bank during detailed design to ensure that the management options are in line with Sydney Water's Asset Masterplan (which covers the entire 7.8km of bank that comprises Alexandra Canal).

- Out of catchment offset stormwater treatment strategies are not appropriate and are not supported. The project should directly manage and treat stormwater runoff from its own pavement areas.
- The fencing represented in the visual render in Chapter 7 Figure 7.19 does not meet the requirements of Sydney Water for fencing adjacent to our stormwater channels. Refer to Sydney Water's Stormwater Fencing Policy (AMQ0135). Fencing along the shared path must be independent of the path to allow for its removal and reinstatement during bank rehabilitation works.
- The active transport link (1.3km long, proposed along western side of Alexandra Canal) is depicted in Figure 7.24 of Chapter 7. Please advise expected width of the active transport link as the render appears to show a setback from both the canal wall and the desalination pipeline however this corridor is restrained in terms of space. The path width must allow for Sydney Water maintenance access to the canal.
- The project description states that the bridge piers will be set back from the top of the banks of the canal to minimise impacts on the canal wall. Sydney Water requires that this setback to be no less than 3m from the canal wall, however Sydney Water is willing to assess on a case-by-case basis if TfNSW can provide evidence to show that there will be no impact to the canal wall and not impede Sydney Water maintenance access to the canal.
- Where maintenance access to the canal wall is restricted, Sydney Water requires that the section of wall plus a 15m buffer zone either side of the edge of the bridges is to be renewed. The buffer zone is required to avoid damage to the bridges during future construction and maintenance activities. The new wall is to be constructed maintenance free with a design life of 100 years. Where the canal wall is not visible (e.g. obstructed by bridges, piers etc), then the wall may be constructed from reinforced concrete. Where the canal is visible, then the wall shall be constructed as per the adjacent future wall type identified under Sydney Water's draft Alexandra Canal Asset Plan.
- Drainage works, including new and modified stormwater outlets, are expected to have an impact on the heritage fabric of Alexandra Canal. TfNSW must obtain approval from Sydney Water to connect to our assets.
- Surface runoff should be piped into the canal and should not be allowed to run down the face of the walls of the canal nor infiltrate into the ground immediately behind the wall.
- We commend the EIS position aiming to achieve best practice outcomes for the entire project and support adopting the NSW Water Quality Objectives, ANZECC Water Quality Guidelines and Botany Bay Water Quality Improvement Plans.
- Sydney Water's stormwater quality targets will apply when a connection to our asset is required (Refer to Sydney Water's website <http://www.sydneywater.com.au/SW/waterthe-environment/how-we-manage-sydney-s-water/stormwater-network/stormwaterquality-targets/index.htm>).

- Stormwater quality monitoring results for stormwater discharges should be provided to Sydney Water throughout including pre, during and post construction of the road (3 years).
- Continual communication with Sydney Water regarding the detailed design and flood assessment will be required. Any weakening of the EIS position during detailed design will be critically examined by Sydney Water.

Contamination

- For impacts on the Alexandra Canal sediments compliance with the NSW EPA's Remediation Order is required.
- The proposed stormwater outlets shall be designed to avoid disturbance of sediment. It is noted that initial designs provided by TfNSW showed a number of outlets with stilling basins to minimise sediment mobilisation by stormwater. Some of these designs appeared likely to act as sedimentation traps and would promote vegetation growth. As well as requiring additional maintenance to maintain drainage performance, it is likely that at least some of the sediment will originate from within the canal and would be classified as contaminated.
- **Ref: Sydney Gateway Road Project: EIS (draft) Technical Working Paper 5 Contamination and Soils.**
 - Corrections are required in the document which make reference to contaminants in Alexandra Canal. The NSW EPA's Remediation Order states, *"The bed sediments at the site have been found to be contaminated with chlorinated hydrocarbons including organochlorine pesticides (chlordane, total DDT and dieldrin), polychlorinated biphenyls (PCBs) and metals ("the contaminants") in such a way as to present a significant risk of harm to human health and the environment."*
 - The term *lateral mitigation* occurs frequently. Perhaps it refers to *lateral migration* instead.
 - The Sydney Gateway project will most likely encounter site-specific issues near the Alexandra Canal. Therefore, Sydney Water requires an independent review of work potentially causing contamination impacts, including acidification, on Sydney Water infrastructure, land and on the ability of Sydney Water work crews to undertake their work safely. This would best be undertaken by a NSW EPA accredited site auditor.
 - Where appropriate, groundwater and vapour sentinel wells should be installed and monitored. These wells would trigger appropriate contamination mitigation responses in a timely manner.
 - **Appendix L Remedial Action Plan (RAP) framework**
 - A NSW EPA accredited site auditor should review all steps in the RAP process for compliance with NSW EPA made or approved guidelines.

- Sydney Water notes the commitment to prepare a Plan of Management in consultation with Sydney Water, consistent with the requirements of Remediation Order 23004, before presenting to the EPA for their approval. The Plan of Management should, amongst others, include actions to manage incidents that could impact sediments and water quality.
- **Impact on Surface water quality**
 - Sydney Water is exploring ways to improve the amenity of the Canal (consistent with the long term water quality objectives to improve water quality for the benefit of aquatic ecosystems, primary recreational users and aquatic food). Sydney Water does not support actions that have the potential to degrade the water quality during construction and operation, such as: from Tempe Landfill leachate; contaminated groundwater discharge; acidification due to groundwater drawdown; works on the northern pond stormwater pipe; mobilisation of contaminated Canal sediments and/or operational surface water runoff.
 - Sydney Water notes the commitment to consult with them during development of the leachate management strategy for works near Tempe Pit, and in development of agreed groundwater discharge criteria for planned discharges to the Canal.

Groundwater

- The assessment shows indicative groundwater drawdown areas, some of which intersect with the Alexandra Canal. The assessment is silent on the potential for settlement to impact the Canal and other Sydney Water assets potentially impacted, however it indicates modelling will be done during detailed design. Sydney Water should be consulted during detailed design if there is the potential for settlement to impact any Sydney Water assets.

Biodiversity

- Sydney Water is exploring ways to improve the amenity of the Canal. Sydney Water must be consulted as the urban design and landscape plan is developed to align the outcomes of their master planning process with the Proposal's biodiversity and landscape planning.

Flooding

- Sydney Water requires evidence that the freight terminal bridge shown in Figure 7.24 in Chapter 7 will not have adverse impacts to flooding in the area, particularly in relation to Alexandra Canal. This is directly in relation to the bridge and the concrete wall adjacent to the canal illustrated in the render.
- Chapter 14: there is a discrepancy between what TfNSW state as the potential peak flood level to Alexandra Canal south of the Botany Rail Line. On part 14.17, a peak

flood level of 0.04m is stated and on part 14.13 a peak flood level of 0.02m is stated. TfNSW to confirm and advise whether these impacts are confined to the Alexandra Canal.

Heritage

- The Alexandra Canal is a State Heritage Registered item.
- Any of the proposed works must not adversely impact the fabric of the heritage item or the cultural heritage significance of the item.
- If any impacts are likely, then they must be assessed by a qualified heritage practitioner and referred to the NSW Heritage Council.
- All fabric assessed as 'high' significance must be conserved in accordance with the Burra Charter.
- If the opportunity presents, it is desirable to replace fabric assessed as 'moderate', 'little' and 'intrusive' significance (Shotcrete, Fabricon and concrete blockwork) with sandstone block.
- Any Aboriginal and Non-Aboriginal archaeology found during the works that relates to the place, the canal and its construction and use, is to be referred to Sydney Water.

Cycle/Pedestrian shared path

- Sydney Water requests a minimum load limit of 35 Tonnes on the shared path to allow for machinery during bank rehabilitation works.

Piling adjacent to Sydney Water assets

- It is recommended that further work is required to inform assessment of the impact of the proposed Sydney Gateway project, especially the bridges on Sydney Water assets. Such may include (not necessarily comprehensive) the following:
 - Detailed geotechnical investigations;
 - Settlement and ground movement predictions from various activities (piling, excavating, fill embankments, etc.) that may impact Sydney Water assets;
 - Dilapidation surveys of Sydney Water assets, and, in particular the Alexandra Canal channel;
 - Vibration limits and trigger levels

Overall, Sydney Water strongly recommends continued consultations with TfNSW to discuss designs and constraints which will benefit the project.

Please contact me on 8849 3528 for further information and to discuss any questions.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Willy Ramlie', with a stylized flourish at the end.

Willy Ramlie
Account Manager – Motorways
Infrastructure Development