

Gateway 2 Sydney Joint Venture (G2SJV)
Level 27, 680 George Street, NSW 2000

16 December 2019

Dear Sir/Madam

Re: Sydney Gateway EIS submission

The Cooks River Alliance (CRA) welcomes the opportunity to comment on the Environmental Impact Statement/ Preliminary Draft Major Development Project Plan (EIS) for the Sydney Gateway Road Project. The Cooks River Alliance (the Alliance) is a voluntary regional organisation of four Councils working towards a common mission to improve the health of the Cooks River Catchment. Please find our submission below.

Catchment Boundary Mapping Errors

Catchment boundaries are incorrectly referenced within the flood and surface water assessment(s), with the area on the eastern extent of Figure 14.1 (as well as in Figure 3-5 and 4-1 Technical Working Paper 8) to the South east of Sydney Airport shown as within the Georges River Catchment. Although some catchment mapping may designate this area as Georges River Catchment, this delineation is inconsistent with the majority of the existing body of contemporary research and literature regarding the Cooks River and Georges River watersheds. This figure should be amended and updated in accordance with the current body of contemporary research or further explanation of the presented boundaries should be included within the EIS.

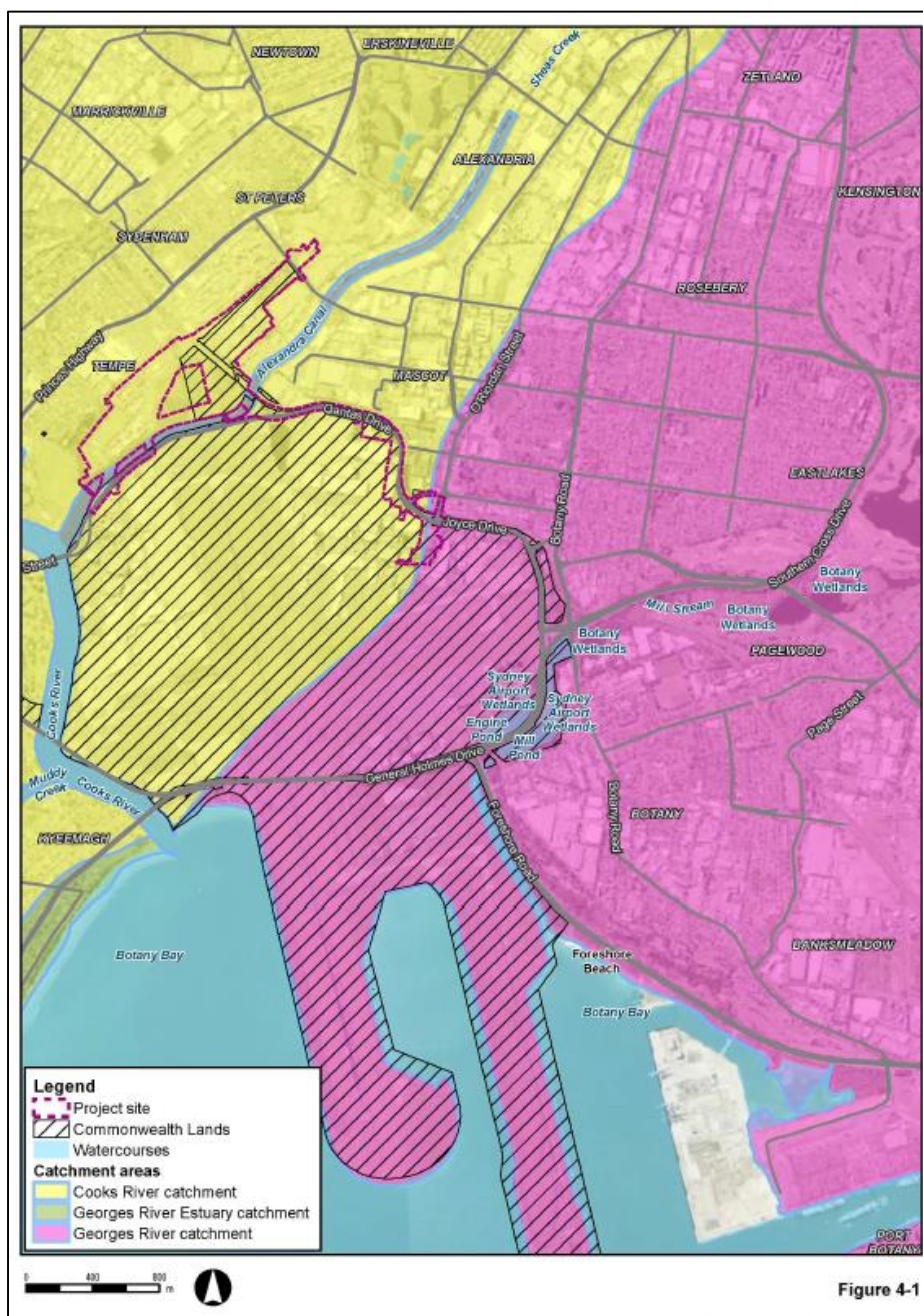


Figure 1-1 Catchments and Waterways

Water Quality Impacts and Assessment

The surface water quality assessment used the ANZECC guidelines (2000) to benchmark water quality impacts. However, these guidelines have since been superseded by the *2018 Water Quality Guidelines for Fresh and Marine Water Quality* (ANZG guidelines (2018)). The assessment should include of comparison against the subsequent revision ANZG guidelines (2018) or provide a robust justification of why the superseded guidelines have been used. This amendment would provide additional technical guidance required to better assess water quality impacts and mitigation measures needed to protect the values of the Mill stream and Alexandra Canal sub-catchments.

The current assessment indicates the final receiving waterways of Alexandra Canal and Mill stream do not achieve any of the relevant BBWQIP targets for operational pollutant load reductions. In addition, the comparison against BBWQIP targets is incomplete as the BBWQIP target of *Gross Pollutants* has not been included and/or detailed within the assessment. An increase in litter loads is anticipated from construction activities. Given the increase in impervious surfaces of six hectares for Alexandra Canal catchment and 0.13 hectares for the Mill Stream catchment during operation in conjunction with cumulative impacts occurring from adjoining development projects there is also the potential for substantial increases in litter loads. As a result, further detail regarding the projected change in loads of Gross Pollutants during construction and operation should be included given the likely increases and associated visual and ecological impacts. Further assessment of the proposed treatment trains should also be undertaken to ensure the Project meets (or at the very least maximises) operational pollutant load reductions for other BBWQIP targets.

Given the potential space constraints, alternative measures should consider the feasibility and inclusion of integrated or individual Water Sensitive Urban Design elements such as permeable pavers and/or bio-retention tree pits as a potential solution. The incorporation of WSUD within the required biodiversity offsets should also be considered, utilising appropriate vegetation planted within WSUD elements that will both provide water quality and quantity services and achieves the objective as an offset for the project. This option could be deliver a number of additional benefits by providing general planting for the project, reducing operational flooding impacts and/or creating visual barriers where required.

Construction Methodology for Alexandra Canal works

The use of coffer dams during the construction of the drainage outlets in Alexandra Canal should also be subject to further assessment and/or alternative construction methodologies explored. Whilst the Cofferdams provide a dry working environment and minimise mobilisation of disturbed sediments, the Canal has been designated as Class 1 Acid Sulfate Soils (ASS); noted as high risk for below ground works due to the potential for the presence of contaminated sediments including heavy metals, PCBs and ASS or PASS in the bed of the canal. Cofferdams may lead to the localised oxidation of contaminants and ASS around the outlet locations. In the case of ASS, oxidation and formation of acidity can persist for years, creating legacy issues if not managed appropriately including large-scale changes within the localised area in the vicinity of the construction footprint and potential downstream impacts. Cumulative impacts may also occur from dewatering for road construction with the potential to result in localised drawdown of the groundwater table and temporary oxidation of additional areas of PASS.

As a result, further consideration should be given to the use of Cofferdams or additional controls should be included based on a precautionary and best-practice approach within ASS management plan to ensure localised removal, treatment and disposal of oxidised sediments and ASS material via an appropriate facility. Additional details of the timing of these works to avoid sensitive ecological windows (for example breeding, spawning or larval stages of threatened or vulnerable species, or to coincide with weather and tidal conditions that will minimise the potential transport of suspended material) should also be provided.

Recommendations

- Catchment boundaries used within the EIS should be amended and updated in accordance with the current body of contemporary research or further justified within the EIS.
- Assessment of gross pollutants loads against the BBWQIP target should be included. Further assessment of the proposed treatment trains should also be undertaken to ensure the Project meets (or at the very least maximises) operational pollutant load reductions for other BBWQIP targets.

- Alternative measures should consider the feasibility and inclusion of integrated or individual Water Sensitive Urban Design elements such as permeable pavers and/or bio-retention tree pits.
- Incorporation of WSUD within the Project's required biodiversity offsets should also be considered, including planting of appropriate vegetation within WSUD elements.
- Surface water quality assessment should include a comparison against the revised ANZG guidelines (2018) or provide a robust justification of why the superseded guidelines have been used.
- Use of Cofferdams should be subject to further assessment or additional controls employed to ensure no water quality or ecological impacts occur from the oxidation of the sediment bed during construction.
- All intrusive works in Alexandra Canal should be carefully planned in accordance with construction programming to avoid sensitive ecological windows.

If you wish to discuss any of the above points, please do not hesitate to contact myself or Sue Burton on (02) 9707 5723 should you require further explanation or assistance in developing these recommendations further. We would be more than happy to assist.

Yours sincerely,

Thomas Sinclair

Senior Catchment Officer

Cooks River Alliance

Thomas.Sinclair@cbc.city.nsw.gov.au

(02) 9707 5723