



Transport for NSW

Hill Road upgrade at Sydney Olympic Park and Lidcombe

Appendix L -

Neutral or beneficial effect on water quality assessment

Neutral or Beneficial Effect Assessment

State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 relates to the use of land within the Sydney drinking water catchment. In accordance with Clause 12 of the SEPP, Roads and Maritime is required to consider whether or not an activity to which Division 5.1 of the EP&A Act applies will have a neutral or beneficial effect on water quality before carrying out the activity.

Factor	Impact
<p>1. Are there any identifiable potential impacts on water quality? What pollutants are likely? During construction and/or post construction?</p>	<p>Potential water quality impacts from the construction of the Proposal are:</p> <ul style="list-style-type: none"> • degraded water quality from chemicals or hazardous material entering Haslams Creek from accidental spills and inadequate management of sediment laden runoff • fuel, chemicals, oils, grease and petroleum spills from construction machinery directly polluting soils and watercourses within the catchment • increased erosion and sedimentation smothering aquatic life and affecting aquatic ecosystems • reduced hydraulic capacity due to deposition of material in the channels of receiving watercourses • contamination of receiving watercourses due to runoff from disturbed areas of contaminated land. <p>Potential pollutants impacting water quality are TSS, TN and TP.</p> <p>Operational water quality impacts are largely associated with pollutants discharged to receiving watercourses in the road runoff. Pollutant deposits built up on road surfaces and pavement areas during dry weather are likely to be washed off and transported to watercourses during wet conditions and storm events. These pollutant deposits include:</p> <ul style="list-style-type: none"> • sediments from pavement wear and atmospheric deposition • heavy metals such as lead, zinc, copper, cadmium, chromium and nickel attached to particles washed off the road pavement • oil, grease and other hydrocarbon products • rubber from tyre wearing • brake pad dust, which could potentially include asbestos from older brake pads • nutrients such as TN and TP.
<p>2. For each pollutant, list the safeguards needed to prevent or mitigate potential impacts on water quality (these may be Water NSW endorsed current recommended practices and/or equally effective other practices)</p>	<p>The Proposal would implement Gross Pollutant Traps (GPT). The installation of a GPTs or similar stormwater treatment system are likely to provide a reduction in pollutant loads and provide opportunity to capture certain volume of accidental oil/fuel spill.</p> <p>The design of the Proposal would also consider the design development the following Water NSW guidelines:</p> <ul style="list-style-type: none"> • Sealed Roads Best Practice Guide • Managing Urban Stormwater Soils and Construction • Guidelines for Treatment of Stormwater Runoff from Road Infrastructure.

Factor	Impact
3. Will the safeguards be adequate for the time required? How will they need to be maintained?	GPTs are identified to only slightly reduce the pollutant concentrations with overall pollutant concentrations above the baseline. During detailed design, the contractor would investigate the use of practicable measures to optimise pollution mitigation. This would include GPTs or similar proprietary products. Maintenance procedures of GPTs would be further explored through detailed design.
4. Will all impacts on water quality be effectively contained on the site by the identified safeguards (above) and not reach any watercourse, waterbody or drainage depression? Or will impacts on water quality be transferred outside the site for treatment? How? Why?	Water quality impacts are expected to stay within the Proposal and the implementation of GPTs. The road drainage would discharge into the Haslams Creek tributary and Haslams Creek via pipe networks. The Proposal is not expected to significantly increase the impervious area in the catchments.
5. Is it likely that a neutral or beneficial effect on water quality will occur? Why?	Once the activity has been completed, the level of pollutants would have a minor beneficial effect compared to when the work commenced.