



DOC17/312008-04
SSI7400 mod 1

Ms Lisa Mitchell
Team Leader, Rail
Department of Planning and Environment
planning.matters@environment.nsw.gov.au

Attention: Belinda Scott

Dear Ms Mitchell

**Sydney Metro City and Southwest (Chatswood to Sydenham) Modification 1 - SSI 7400
Request for EPA Comment**

I refer to the request from the Department of Planning and Environment (DP&E) to the Environment Protection Authority (EPA) dated 7 June 2017 to undertake a review of the proposed modification to the Sydney Metro City and Southwest (Chatswood to Sydenham) rail project SSI7400 Mod 1.

The EPA has reviewed the modification report and has provided comments in Attachment 1. The comments outline the EPA's concerns regarding certain aspects of the proposal and recommend that additional information is included in the environmental assessment in relation to groundwater management, contaminated site management and noise and vibration.

If you have any questions regarding this letter please contact Claire Miles, Operations Officer Metropolitan Infrastructure on 9995 5167 or at Claire.miles@epa.nsw.gov.au

Yours Sincerely

A handwritten signature in black ink, appearing to read 'Stuart Clark', written over a horizontal line.

30 June 2017

STUART CLARK
Acting Unit Head Metropolitan Infrastructure
NSW Environment Protection Authority

Contact officer: CLAIRE MILES
9995 5167

Attachment 1

Groundwater

The EIS states that groundwater generally has elevated iron and manganese and low pH in the Hawkesbury Sandstone and that seepage into the dive structures and shaft excavations volumes up to 11.8 L/s are likely across the whole project.

The EIS also states that the discharge water quality level would be determined in consultation with the EPA during reference design, considering the current water quality of the receiving watercourse. The proponent should be note that discharge criteria are not derived with reference to the receiving water quality but the maintenance or restoration of the environmental values of the receiving waters. The ANZECC (2000) Guidelines recommend that guideline trigger values for slightly–moderately disturbed systems are applied to highly disturbed ecosystems wherever possible.

1. *For both sites, the proponent should assess the potential impact of discharges on receiving waters, including but not be limited to:*
 - a) *Identify and estimate the quality and quantity of all pollutants that may be introduced into the water cycle by source and discharge point, including residual discharges after mitigation measures are implemented.*
 - b) *a statement of the ambient Water Quality Objectives (WQOs) and the environmental values for the receiving waters relevant to the proposal*
 - c) *a statement of the indicators and associated trigger values or criteria for the identified environmental values*
 - d) *assessment of the significance of any identified impacts on surface waters including the relevant ambient water quality outcomes.*
 - e) *demonstration that any discharge water quality is consistent with at least the 95% protection level for freshwater and/or marine ecosystems during the construction and operation phases. Contaminants that bio-accumulate should have a 99% protection level.*

2. *The proponent should also demonstrate how the proposal will be designed and operated to:*
 - a) *protect the WQOs for receiving waters where they are currently being achieved; and*
 - b) *contribute towards achievement of the WQOs over time where they are not currently being achieved.*

Artarmon

The approved Artarmon substation section of the project was not near potential sites of contamination. The modification is in a site of potential contamination. The site has been used for commercial/industrial operations (currently auto-mechanical) which may have led to the presence of heavy metals, hydrocarbons and solvents in the soil and groundwater.

The Artarmon substation modification does not mention water treatment, however the EIS includes a water treatment plant treating water for pH, total suspended solids, and oil and grease only.

The proponent should confirm a wastewater treatment plant will be used to treat groundwater before discharge to surface water. The potential contaminants and associated impact should also be considered as in item 1.

Victoria Cross

At Victoria Cross Station, the tunnel water would be treated onsite with a water treatment plant and discharged. The modification states, the “groundwater would be treated to meet the requirements of the environment protection licence for the project, which are anticipated to be:

- *pH – 6.5 to 8.5*
- *Total suspended solids – less than 50 milligrams per litre*
- *Oil and grease – non visible.”*

The EPA notes that these requirements are potentially inadequate to protect receiving waters and does not consider all potential pollutants. To issue discharge criteria for an EPL, the discharge must be characterised and the potential impact of all potential pollutants assessed.

Noise and Vibration

Changes to Impacted Receivers

Predicted construction noise levels exceed the Noise Management Levels on fewer occasions, and by lesser amounts, for the proposed modification compared with the approved project. This is presented as a reduction in overall impact, which is correct, however, the impact affects receivers who may not have been impacted previously. Those impacted by the proposed modification will experience it as an increase over the impact they would have experienced from the approved project. The proponent should acknowledge that those impacted by the proposed modification will experience it as an increase of the impact they would have received from the approved project.

Consideration of Noise Management Levels (NMLs)

Noise Management Levels (NMLs) for noise sensitive locations near the proposed works are based on monitoring results from a location immediately adjacent to Miller Street. Miller Street appears to be a busier road than McLaren and Walker streets, which are the streets adjoining some of the noise sensitive locations near the proposed works. Background noise levels at other noise sensitive locations are therefore likely to be lower, particularly those locations to the east and north of the proposed construction site area. The proponent should evaluate the potential for this and make any necessary adjustments to the NMLs.

Sleep Disturbance Noise Levels

The modification report adopts a sleep disturbance noise management level of 55dBA internal / 65dBA external. This appears to be based on guidance in the Road Noise Policy (RNP). However, the RNP guidance is in relation to "awakenings" not sleep disturbance. Sleep disturbance may occur without awakening. The proponent should confirm whether their proposed sleep disturbance noise management level is based on awakenings, and justify why it is not based on the background + 15 level for sleep disturbance in the relevant INP application note. Otherwise the proponent should propose a sleep disturbance management level that is based on sleep disturbance, rather than awakenings.

Ground Borne Noise Levels – Area A

In relation to predicted ground-borne noise impacts in Table 10-14, the summary of results includes that the NML is exceeded by 2dB at residences in Area A during the night-time for rock drilling. A statement then follows that rock drilling could therefore operate 24 hours per day without ground-borne NMLs being exceeded, which is a direct contradiction of the previous statement. The proponent should clarify ground borne noise levels for rock drilling, at residences in Area A during the night-time.

The conditions of approval for the approved project should apply to the modified project, if approved. The approval for the project includes conditions that apply to all works forming part of the project. The conditions are appropriate for the modified project and should be applied if the modification is approved.

Contaminated Soil and Water

The assessment methodology applied for contamination as described in Section 16.1. indicates the methodology will include review of publicly available data and web-based information searches, including the Contaminated Sites Register and Record of Notices (NSW Environment Protection Authority, 2015). The EPA notes that the EPA's public register is updated regularly, and as such should be dated to the current year, not 2015.

The strategy for the assessment and management of the contamination appears appropriate and includes the provision of a site auditor if remedial works are deemed necessary. The EPA offers the following general comments:

- Section 16.1 of the report listed the following guidelines as being considered, including (1) *Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998) and (2) *Guidelines for Consultants Reporting on Contaminated Sites* (Office of Environment and Heritage, 2000). The EPA notes that the Guidelines for Consultants is referenced incorrectly and should read "Guidelines for Consultants Reporting on Contaminated Sites (OEHS 2011)",

- The proponent must follow further guidance to assess, manage and report potentially contaminated land, beyond the two references listed. Please refer to the current list of guidelines made or approved by the EPA under the *Contaminated Land Management Act 1997* (CLM Act).
- Where any identified contamination meets the triggers contained in the *Guidelines for the Duty to Report*, then the contamination (or site) should be notified to the EPA in accordance with requirements of s60 of the CLM Act.