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15 October 2020

Ref: SSJ CSWMP Rev12

Dear Hugh

RE: Endorsement of Sydenham Station and Junction (SSJ) Construction Soil and Water Management Plan (CSWMP) Rev12 – Sydney Metro City & Southwest

Thank you for providing the following document for Environmental Representative (ER) review and endorsement as required by Conditions of Approval A24 (d) and (j) of the Sydney Metro City & Southwest project (SSI – 15_7400, dated 9 January 2017).

- Sydney Metro City & Southwest Construction Soil and Water Management Plan for Sydenham Station & Junction (SSJ) (SMCSWSSJ-JHL-WSS-EM-PLN-000033 Revision 12.0, dated 2nd October 2020) (the Plan).

The Plan was developed to address Condition C3 (d) of the project approval. Rev 12 amends the Plan by:

- a) Amending Section 4.3 Groundwater to include a description of a proposed Ausgrid 132kv underbore from 11 Sydenham Road under the rail corridor to Hogan Avenue. The excavations for launch and receiving pits required to complete the underbore would result in interaction with groundwater, which was previously not anticipated for the project. The changes incorporate the findings from an Underbore Groundwater Report prepared to assess the potential impacts of the activity, including a discussion of groundwater flow volume, groundwater quality, groundwater discharge, applicability of REMM GWG1 & GWG2, and monitoring
- b) Amending Section 4.9 Contamination to include 117 Railway Road, Sydenham on the list of CLM Act notified contaminated sites (not previously identified in the MOD4 Assessment Report)
- c) Amending Section 5 Aspects and Potential Impacts to include aspects and potential impacts from the inappropriate handling of groundwater
- d) Adding Section 6.9 Groundwater to include groundwater mitigation measures

The amendments were considered 'minor' for the following reasons:

- The Underbore Groundwater Report found that the underbore will extend into a clayey perched water bearing zone that transmits groundwater at slower rates than an aquifer. JHLOR have concluded, based on review of the groundwater report, their excavation will have no impact on the aquifer.
- Relatively small volumes of water are expected to drain into the underbore excavations. Applying a factor of safety of 2 to the calculated discharge rate leads to an estimated discharge of 374,400L (or 0.37ML) over the proposed 90 day works programme. The estimated discharge of 0.187ML is well below the 3ML/year limit, above which groundwater extraction licence requirements may be required.
- There are no known groundwater dependant ecosystems or Aboriginal heritage sites within the area of influence of the underbore works.
- Sydney Metro has confirmed the proposed works do not trigger an update to the Staging Report, or for any additional CoAs or REMMs to be 'switched on' for the project. The amendments are considered consistent with the MOD4 modification to the planning approval. Section 4.3.1.4 has been added to the CSWMP to address the non-applicability of REMMs GWG1 & GWG2, i.e.:
 - The average drawdown across the overall length of the underbore is less than the 2m general target in GWG1; and
 - Condition surveys will be offered to owners within 66m of the underbore works at 11 Sydenham Rd, unless recommended otherwise from a qualified structural engineer. The modelling for drawdown impacts in clay materials is overstated at 62-66m, and is thought to be as low as 5-10m in reality.
- Consultation attempts were made with NRAR over a four week period; no response was received, as documented in the SSJ CEMP, Rev 13.
- Additional mitigation measures have been included in the CSWMP for implementation during underbore activity. This includes (but is not limited to) a program of ongoing groundwater monitoring (from the excavation), and tracking volumes of groundwater discharged from the works.
- While elevated levels of ammonia, cyanide, copper and zinc were present in the groundwater, proposed discharge is temporary on site storage in a holding tank, then transport to a licensed liquid waste facility.
- Elevated levels of cyanide detected in MW02 have been investigated and appropriate specialist advice sought, to be implemented during the works (as documented in the CSWMP).

In addition to the above, results of any groundwater monitoring conducted during the underbore works will be reported in the Construction Monitoring Report as part of the Construction Monitoring Program. This requirement will be documented in the next revision of the CSWMP.



As an approved ER for the Sydney Metro City & Southwest project, I have reviewed and provided comment on this document. I approve the amendment of the Plan for implementation.

Yours sincerely

Jo Heltborg
Environmental Representative – Sydney Metro – City and South West