



# Environmental Monitoring Data

Project:	Sydney Metro City & Southwest– TSE Works
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## Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
01	12/01/18	R.Williams	R.Batch	R. Muir	For publication

## 1. Project Summary

The Sydney Metro City and Southwest is the second portion of the new standalone rail network known as the Sydney Metro which is Australia’s largest public transport infrastructure project and a priority rail project for the NSW Government. John Holland CPB Ghella (JHCPBG) have been contracted by Transport for New South Wales to design and construct the Tunnel and Stations Excavation Works Project (TSE Works) of the Sydney Metro City & Southwest between Chatswood and Sydenham. Figure 1 provides an overview of the Project.



Figure 1: Project Overview

## 2. Environmental Protection Licence and Reporting Requirements

John Holland Pty Ltd obtained the Environment Protection Licence (EPL No. 20971) from the NSW Environment Protection Authority for the Tunnel and Station Excavation (TSE) Works on behalf of the John Holland CPB Ghella (JHCPBG) Joint Venture. The licence is for construction works relating to Rail Systems Activities and Concrete Works as defined under Schedule 1 of the *Protection of the Environment Operations Act, 1997* (POEO Act).

The licence describes monitoring and reporting requirements for the TSE Works, and specifically provides discharge criteria for water treatment plant and sediment basin water quality. The following report details environmental monitoring undertaken during this reporting month conducted in accordance with the EPL.

The EPL can be found by following the link below to the EPA’s website:

<http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=124554&SYSUID=1&LICID=20971>

### **3. Discharge Water Monitoring**

Testing and discharge was undertaken twice at treatment plant BL-1 during this reporting period. Water monitoring results are summarised in Table 1.

### **4. Noise and Vibration Monitoring**

Noise monitoring was undertaken during the reporting period and results are detailed in Table 2.

Table 1: Water Monitoring Data.

Monitoring Point	Identifier <sup>1</sup>	Date Sampled	Event Based Monitoring (Y/N)	Parameter/ Criteria/ Measured Value			Comments
				pH (6.5 - 8.5)	Turbidity (35 NTU)	Oil & Grease (None Visible)	
2	WTP BL-1	11/12/17	Y	7.79	<30	N/A	Compliant
2	WTP BL-1	13/12/17	Y	7.67	0	N/A	Compliant

Table 2: Vibration Monitoring Data.

Monitoring location	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value (mm/s)	Goals / Targets (mm/s)	Comments
Lvl 3, 20 Clarke St, Crows Nest	12/12/2017	Attended	Y	mm/s	0.57	20	Compliant for structural damage

Table 3: Noise Monitoring Data

Monitoring location (Noise Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
BN_02, Munn Street	01/12/2017 00:05	Attended	Y	Laeq(15min)	52.8	65	Works compliant.
BN_03, High Street	01/12/2017 00:30	Attended	Y	Laeq(15min)	49.8	54	Works compliant.
CN_04, Pacific Highway	04/12/2017 22:45	Attended	Y	Laeq(15min)	69.0	74	Works Compliant.

Monitoring location (Noise Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
CN_03, Hume Street	04/12/2017 21:15	Attended	Y	Laeq(15min)	60.2	60	Works Compliant. Non- TSE construction works dominant.
CN_01, Pacific Highway	04/12/2017 22:15	Attended	Y	Laeq(15min)	66.5	75	Works Compliant.
CN_01, Pacific Highway	05/12/2017 00:00	Attended	Y	Laeq(15min)	67.6	78	Works compliant.
CN_04, Pacific Highway	05/12/2017 00:15	Attended	Y	Laeq(15min)	-	74	Monitoring not recorded due to heavy winds and rain. Works inaudible.
CN_01, Pacific Highway	05/12/2017 21:15	Attended	Y	Laeq(15min)	70.8	83	Works compliant.
CN_04, Pacific Highway	05/12/2017 21:40	Attended	Y	Laeq(15min)	71.8	74	Works compliant.
CDS_06, Mowbray Road, Chatswood	05/12/2017 23:05	Attended	Y	Laeq(15min)	63.5	90	Works compliant.
CN_03, Hume Street	05/12/2017 23:45	Attended	Y	Laeq(15min)	60.8	74	Works compliant.
CN_04, Pacific Highway	06/12/2017 00:30	Attended	Y	Laeq(15min)	68.6	69	Works compliant.
CN_03, Hume Street	06/12/2017 00:50	Attended	Y	Laeq(15min)	52.7	65	Works compliant.
CDS_06, Mowbray Road, Chatswood	06/12/2017 01:20	Attended	Y	Laeq(15min)	69.6	75	Works compliant.

Monitoring location (Noise Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
CDS_06, Mowbray Road, Chatswood	06/12/2017 21:45	Attended	Y	Laeq(15min)	64.8	75	Works compliant.
CDS_06, Mowbray Road, Chatswood	06/12/2017 22:05	Attended	Y	Laeq(15min)	62.8	75	Works compliant.
CN_04, Pacific Highway	06/12/2017 23:40	Attended	Y	Laeq(15min)	75.5	78	Works Compliant.
CDS_06, Mowbray Road, Chatswood	07/12/2017 00:20	Attended	Y	Laeq(15min)	60.3	75	Works Compliant.
BN_03, High Street	11/12/2017 22:42	Attended	Y	Laeq(15min)	52.0	50	Non- TSE construction noise dominant. TSE construction contribution compliant (48.8dB).
CDS_06, Mowbray Road, Chatswood	12/12/2017 20:53	Attended	Y	Laeq(15min)	73.5	89	Works compliant, light traffic Works Compliant.
BN_03, High Street	12/12/2017 21:45	Attended	Y	Laeq(15min)	50.0	50	Works Compliant.
BN_03, High Street	12/12/2017 22:18	Attended	Y	Laeq(15min)	53.5	50	Non-TSE construction works dominant noise source. TSE works compliant.
CDS_06, Mowbray Road, Chatswood	12/12/2017 23:02	Attended	Y	Laeq(15min)	72.7	89	Works Compliant.
CN_04, Pacific Highway	12/12/2017 23:37	Attended	Y	Laeq(15min)	64.4	76	Works Compliant.
CN_04, Pacific Highway	13/12/2017 00:18	Attended	Y	Laeq(15min)	63.8	71	Works Compliant.

Monitoring location (Noise Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
BN_03, High Street	13/12/2017 21:34	Attended	Y	Laeq(15min)	55.8	50	Non-TSE construction works dominant noise source. TSE works compliant.
CN_04, Pacific Highway	13/12/2017 22:30	Attended	Y	Laeq(15min)	76.2	84	Works Compliant.
CN_04, Pacific Highway	19/12/2017 22:30	Attended	Y	Laeq(15min)	74.3	84	Works Compliant.
CN_04, Pacific Highway	20/12/2017 00:15	Attended	Y	Laeq(15min)	60.1	69	Works Compliant.
MP_03, O'Connell Street	20/12/2017 14:40	Attended	Y	Laeq(15min)	79.5	105	Works Compliant.
MP_02, Castlereagh Street	27/12/2017 22:14	Attended	Y	Laeq(15min)	68.9	60	TSE works inaudible. Non- construction sources dominant.
MP_01, Phillip Street	27/12/2017 22:46	Attended	Y	Laeq(15min)	70.8	73	Works Compliant.
MP_02, Castlereagh Street, Sydney	28/12/2017 00:02	Attended	Y	Laeq(15min)	67.0	47	TSE works inaudible. Non- construction sources dominant.
CN_04, Pacific Highway, Corws Nest	28/12/2017 19:30	Attended	Y	Laeq(15min)	71.8	83	Works Compliant.
CN_04, Hume Street, Crows Nest	28/12/2017 19:53	Attended	Y	Laeq(15min)	65.6	73	Works Compliant.
MP_01, Phillip Street	28/12/2017 22:40	Attended	Y	Laeq(15min)	63.2	73	TSE works inaudible. Non- construction sources dominant.

Monitoring location (Noise Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
MP_01, Elizabeth Street	28/12/2017 23:16	Attended	Y	Laeq(15min)	68.1	70	Works Compliant.
MP_01, Phillip Street	29/12/2017 00:00	Attended	Y	Laeq(15min)	66.3	70	Works Compliant.
MP_01, Phillip Street	29/12/2017 00:20	Attended	Y	Laeq(15min)	66.8	70	Works Compliant.