



Environmental Monitoring Data

Project: Sydney Metro City & Southwest– TSE Works

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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 during this reporting period. Table 1 contains the discharge monitoring results.

4. Noise and Vibration Monitoring

Noise and vibration monitoring was undertaken during this reporting period. Table 2 contains the vibration monitoring results, and Table 3 contains the noise monitoring results.

Table 1: Water Monitoring Data.

Monitoring Point	Identifier ¹	Date Sampled	Event Based Monitoring (Y/N)	Parameter/ Criteria/ Measured Value			Comments
				pH (6.5 - 8.5)	Turbidity (<35 NTU)	Oil & Grease (None Visible)	
1	MD_01	16/03/2018	Y	8.12	26.6	Nil	Discharge compliant
1	MD_01	20/03/2018	Y	7.32	8.2	Nil	Discharge compliant
1	MD_01	21/03/2018	Y	8.48	18.6	Nil	Discharge compliant
1	PS_01	23/03/2018	Y	8.1	25	Nil	Discharge compliant
1	MD_01	23/03/2018	Y	7.18	9.63	Nil	Discharge compliant
1	MD_01	24/03/2018	Y	6.84	27.8	Nil	Discharge compliant
1	MD_01	26/03/2018	Y	6.87	13.9	Nil	Discharge compliant
1	MD_01	28/03/2018	Y	6.8	12.3	Nil	Discharge compliant

¹ As per discharge point identified in Sydney Metro City and Southwest Temporary Basin and Water Treatment Discharge Point Schedule

Table 2: Vibration Monitoring Data.

Monitoring location	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Measured Value (mm/s)	Goals / Targets (mm/s)	Comments
14 May Street, St. Peters	7/03/2018	Attended	Y	5.6	7.5	Works compliant. Utilities trenching hammering continued.
22 May Street, St. Peters	7/03/2018	Attended	Y	0.3	0.3	Works compliant. Utilities trenching hammering continued.

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
MP_02, 17 Castlereagh Street, Martin Place	1/03/2018	Attended	Y	LAeq 15 Min	66.8	78	Validation monitoring. TSE works compliant
CN_04, 376 Pacific Highway, Crows Nest	1/03/2018	Attended	Y	LAeq 15 Min	64.8	68	Validation monitoring. TSE works compliant
MP_03, 64-66 Pitt Street, Martin Place	1/03/2018	Attended	Y	LAeq 15 Min	66.0	91	Validation monitoring. TSE works compliant
MP_03, 64-66 Pitt Street, Martin Place	1/03/2018	Attended	Y	LAeq 15 Min	75.5	91	Validation monitoring. TSE works compliant
CN_04, 376 Pacific Highway, Crows Nest	1/03/2018	Attended	Y	LAeq 15 Min	65.1	83	Validation monitoring. TSE works compliant
CN_04, 376 Pacific Highway, Crows Nest	2/03/2018	Attended	Y	LAeq 15 Min	64.3	70	Validation monitoring. TSE works compliant
MP_03, 64-66 Pitt Street, Martin Place	2/03/2018	Attended	Y	LAeq 15 Min	72.1	77	Validation monitoring. TSE works compliant
NCA07, 8 Applebee Street, St. Peters	2/03/2018	Attended	Y	LAeq 15 Min	48.7	75	Validation monitoring. TSE works compliant
OSR, 234 Miller Street, Victoria Cross	7/03/2018	Attended	Y	LAeq 15 Min	63.2	88	Validation monitoring. TSE 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_03, 7-11 Nelson Street, Chatswood	7/03/2018	Attended	Y	LAeq 15 Min	62.3	83	Validation monitoring. TSE works compliant
CDS_03, 17 Nelson Street, Chatswood	7/03/2018	Attended	Y	LAeq 15 Min	63.6	83	Validation monitoring. TSE works compliant
MDS_03, 43 May Street, St Peters	7/03/2018	Attended	Y	LAeq 15 Min	67.4	78	Validation monitoring. TSE Works Complaint
BN_03, 38 High Street, Millers Point	8/03/2018	Attended	Y	LAeq 15 Min	53.8	68	Validation monitoring. TSE works compliant
BN_03, 50 High Street, Millers Point	8/03/2018	Attended	Y	LAeq 15 Min	52.1	68	Validation monitoring. TSE works compliant
BN_03, 30 High Street, Millers Point	8/03/2018	Attended	Y	LAeq 15 Min	53.0	63	Validation monitoring. TSE works compliant
BN_03, 30 High Street, Millers Point	8/03/2018	Attended	Y	LAeq 15 Min	50.7	63	Validation monitoring. TSE works compliant
NCA07, 681 King Street, St. Peters	8/03/2018	Attended	Y	LAeq 15 Min	72.2	91	Validation monitoring. TSE works compliant
MDS_01, 185 Edgeware Road, Marrickville	12/03/2018	Attended	Y	LAeq 15 Min	65.0	62	Validation monitoring. Raining during monitoring period, TSE works inaudible.
MP_03, 64-66 Pitt Street, Martin Place	12/03/2018	Attended	Y	LAeq 15 Min	71.9	91	Validation monitoring. TSE works compliant
MP_03, 61-101 Phillip Street, Sydney	12/03/2018	Attended	Y	LAeq 15 Min	71.2	66	Validation monitoring. Raining during monitoring period,

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, 24 Munn Street, Barangaroo	14/03/2018	Attended	Y	LAeq 15 Min	56.8	67	Validation monitoring. TSE works compliant
BN_02, 24 Munn Street, Barangaroo	14/03/2018	Attended	Y	LAeq 15 Min	55.8	67	Validation monitoring. TSE works compliant
BN_03, 2 High Street, Millers Point	14/03/2018	Attended	Y	LAeq 15 Min	56.2	71	Validation monitoring. TSE works compliant
BN_03, 2 High Street, Millers Point	14/03/2018	Attended	Y	LAeq 15 Min	58.0	71	Validation monitoring. TSE works compliant
WS_02, 213 Cope Street, Waterloo	15/02/2018	Attended	Y	LAeq 15 Min	60.9	82	Validation monitoring. TSE works compliant
WS_03, 128 Wellington Street, Waterloo	15/03/2018	Attended	Y	LAeq 15 Min	59.2	85	Validation monitoring. TSE works compliant
WS_03, 128 Wellington Street, Waterloo	16/03/2018	Attended	Y	LAeq 15 Min	64.5	85	Validation monitoring. TSE works compliant
PS_01, 128 Bathurst Street, Sydney	19/03/2018	Attended	Y	LAeq 15 Min	71.5	89	Validation monitoring. TSE works compliant
PS_01, 128 Bathurst Street, Sydney	19/03/2018	Attended	Y	LAeq 15 Min	71.3	89	Validation monitoring. TSE works compliant
PS_02, 329 Pitt Street, Sydney	19/03/2018	Attended	Y	LAeq 15 Min	67.7	62	Validation monitoring. TSE Works Compliant, works inaudible, dominant noise source traffic

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
PS_02, 329 Pitt Street, Sydney	19/03/2018	Attended	Y	LAeq 15 Min	66.8	60	Validation monitoring. TSE Works Compliant, works inaudible, dominant noise source traffic and non-TSE related utilities work.
PS_01, 128 Bathurst Street, Sydney	20/03/2018	Attended	Y	LAeq 15 Min	69.6	86	Validation monitoring. TSE works compliant
PS_02, 329 Pitt Street, Sydney	20/03/2018	Attended	Y	LAeq 15 Min	65.5	58	Validation monitoring. TSE Works Compliant, traffic dominant noise source
211-217 Castlereagh Street	23/03/2018	Attended	Y	LAeq 15 Min	48.0	N/A	Background noise level reading in sleeping quarters of fire brigade.
211-217 Castlereagh Street	23/03/2018	Attended	Y	LAeq 15 Min	41.8	N/A	Background noise level reading in sleeping quarters of fire brigade.
CN_04, 374 Pacific Highway	23/03/2018	Attended	Y	LAeq 15 Min	68.9	53	Validation monitoring. TSE Works inaudible. Traffic and pedestrians dominant noise source.
25A Hickson Road, Barangaroo	23/03/2018	Attended	Y	LAeq 15 Min	75.8	91	Validation monitoring. TSE works compliant
NCA07, 8 Applebee Street, St. Peters	26/03/2018	Attended	Y	LAeq 15 Min	62.2	91	Validation monitoring. TSE works compliant
PS_01, 343-357 Pitt Street, Sydney	26/03/2018	Attended	Y	LAeq 15 Min	69.2	69	Validation monitoring. TSE Works Compliant, traffic dominant noise source
PS_05, 308 Pitt Street, Sydney	26/03/2018	Attended	Y	LAeq 15 Min	69.0	78	Validation monitoring. TSE 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
PS_05, 308 Pitt Street, Sydney	27/03/2018	Attended	Y	LAeq 15 Min	66.4	75	Validation monitoring. TSE works compliant
NCA07, 8 Applebee Street, St. Peters	27/03/2018	Attended	Y	LAeq 15 Min	62.6	75	Validation monitoring. TSE works compliant
PS_01, 343-357 Pitt Street, Sydney	27/03/2018	Attended	Y	LAeq 15 Min	66.9	66	Validation monitoring. TSE Works Compliant, traffic dominant noise source
CDS_03, 7-11 Nelson Street, Chatswood	27/03/2018	Attended	Y	LAeq 15 Min	53.7	92	Validation monitoring. TSE works compliant
3 May Street, St. Peters	27/03/2018	Attended	Y	LAeq 15 Min	68.9	89	Validation monitoring. TSE works compliant
681 King Street, St. Peters	28/03/2018	Attended	Y	LAeq 15 Min	71.1	77	Validation monitoring. TSE works compliant
PS_05, 137-139 Bathurst Street, Sydney	28/03/2018	Attended	Y	LAeq 15 Min	66.4	86	Validation monitoring. TSE works compliant
PS_02, 329 Pitt Street, Sydney	28/03/2018	Attended	Y	LAeq 15 Min	65.3	63	Validation monitoring. TSE Works Compliant, traffic dominant noise source
MDS_01, 185 Edgeware Road, Marrickville	28/03/2018	Attended	Y	LAeq 15 Min	64.9	51	Validation monitoring. TSE Works Compliant, traffic dominant noise source, TSE works inaudible
MDS_02, 330 Edgeware Road, Marrickville	28/03/2018	Attended	Y	LAeq 15 Min	60.4	76	Validation monitoring. TSE 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
MDS_01, 185 Edgeware Road, Marrickville	29/03/2018	Attended	Y	LAeq 15 Min	57.9	43	Validation monitoring. TSE Works Compliant, traffic dominant noise source, TSE works inaudible
MDS_02, 330 Edgeware Road, Marrickville	29/03/2018	Attended	Y	LAeq 15 Min	56.9	61	Validation monitoring. TSE works compliant