



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	PS_01	3/04/2018	Y	8.00	10.0	Nil	Discharge approved.
1	PS_01	5/04/2018	Y	6.96	4.7	Nil	Discharge approved.
1	MD_01	5/04/2018	Y	7.31	5.8	Nil	WTP Commissioning. Discharge approved.
1	MD_01	6/04/2018	Y	7.60	14.7	Nil	WTP Commissioning. Discharge approved.
1	MD_01	9/04/2018	Y	8.07	10.7	Nil	Discharge approved.
1	MD_01	9/04/2018	Y	7.26	19.3	Nil	WTP Commissioning. Discharge approved.
1	MD_01	11/04/2018	Y	7.16	12.6	Nil	WTP Commissioning. Discharge approved.
1	MD_01	13/04/2018	Y	7.04	8.7	Nil	WTP Commissioning. Discharge approved.
1	MD_01	16/04/2018	Y	7.01	6.0	Nil	WTP Commissioning. Discharge approved.
1	MD_01	20/04/2018	Y	8.20	23.7	Nil	WTP Commissioning. Discharge approved.
1	MD_01	23/04/2018	Y	7.31	4.3	Nil	WTP Commissioning. Discharge approved.
1	MD_01	23/04/2018	Y	6.62	8.1	Nil	WTP Commissioning. Discharge approved.
1	MD_01	24/04/2018	Y	6.66	4.0	Nil	Discharge approved.
1	MD_01	27/04/2018	Y	7.49	14.2	Nil	WTP Commissioning. Discharge approved.

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
BN_03, High Street, Millers Point	4/04/2018	Attended	Y	0.12	2.50	Works Compliant.
VC_06, Berry Street, Victoria Cross	05/04/2018	Attended	Y	0.44	7.50	Works Compliant.
VC_06, Berry Street, Victoria Cross	09/04/2018	Attended	Y	0.63	7.50	Works Compliant.
VC_06, Berry Street, Victoria Cross	10/04/2018	Attended	Y	0.14	7.50	Works Compliant.
VC_06, Berry Street, Victoria Cross	11/04/2018	Attended	Y	0.18	7.50	Works Compliant.
BN_03, High Street, Millers Point	17/04/2018	Attended	Y	0.19	2.50	Works compliant.
VC_04, Miller Street, Millers Point	19/04/2018	Attended	Y	1.10	7.50	Works Compliant.
VC_04, Miller Street, Millers Point	23/04/2018	Attended	Y	0.21	7.50	Works compliant.
WS_03, Wellington Street, Waterloo	27/04/2018	Attended	Y	0.30	0.50	Works compliant.

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
CN_03, Clarke Street, Crows Nest	05/04/2018	Attended	Y	LAeq 15 Min	78.6	93	TSE works compliant.
CN_03, Clarke Street, Crows Nest	05/04/2018	Attended	Y	LAeq 15 Min	71.4	93	TSE works compliant.
VC_06, Berry Street, Victoria Cross	05/04/2018	Attended	Y	LAeq 15 Min	53.6	64	TSE works compliant.
VC_06, Berry Street, Victoria Cross	09/04/2018	Attended	Y	LAeq 15 Min	59.4	64	TSE works compliant.
VC_06, Berry Street, Victoria Cross	11/04/2018	Attended	Y	LAeq 15 Min	52.6	64	TSE works compliant.
BN_02, Munn Street, Millers Point	11/04/2018	Attended	Y	LAeq 15 Min	50.2	67	TSE works compliant.
PS_02, Castlereagh Street, Sydney	11/04/2018	Attended	Y	LAeq 15 Min	68.1	60	TSE works compliant. Traffic dominant noise source.
VC_06, Miller Street, Victoria Cross	12/04/2018	Attended	Y	LAeq 15 Min	71.2	87	TSE works compliant.
PS_02, Castlereagh Street, Sydney	12/04/2018	Attended	Y	LAeq 15 Min	65.5	58	TSE works compliant. Traffic dominant noise source.
MP_03, Phillip Street, Sydney	12/04/2018	Attended	Y	LAeq 15 Min	69.0	66	TSE works compliant. Traffic dominant noise source.

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, Millers Point	12/04/2018	Attended	Y	LAeq 15 Min	56.8	52	TSE works compliant. Traffic and pub patrons dominant noise sources.
BN_03, High Street, Millers Point	13/04/2018	Attended	Y	LAeq 15 Min	60.7	50	TSE works compliant. Traffic dominant noise source.
MDS_01, Edgeware Road, Marrickville	13/04/2018	Attended	Y	LAeq 15 Min	63.7	64	TSE works compliant. Traffic dominant noise source.
MDS_02, Edgeware Road, Marrickville	13/04/2018	Attended	Y	LAeq 15 Min	72.4	91	TSE works compliant.
MDS_01, Edgeware Road, Marrickville	13/04/2018	Attended	Y	LAeq 15 Min	65.8	64	TSE works compliant. Traffic dominant noise source.
MDS_02, Edgeware Road, Marrickville	13/04/2018	Attended	Y	LAeq 15 Min	70.6	91	TSE works compliant.
MP_03, Phillip Street, Sydney	13/04/2018	Attended	Y	LAeq 15 Min	66.5	60	TSE works compliant. Traffic dominant noise source.
MDS_01, Edgeware Road, Marrickville	13/04/2018	Attended	Y	LAeq 15 Min	52.5	47	TSE works compliant. Traffic dominant noise source.
MDS_02, Edgeware Road, Marrickville	13/04/2018	Attended	Y	LAeq 15 Min	64.7	75	TSE works compliant.
CN_01, Oxley Street, Crows Nest	14/04/2018	Attended	Y	LAeq 15 Min	66.7	72	TSE works compliant.
CN_01, Cnr Pac Hwy and Hume Street, Crows Nest	14/04/2018	Attended	Y	LAeq 15 Min	71.8	75	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
VC_06, Miller Street, Victoria Cross	14/04/2018	Attended	Y	LAeq 15 Min	71.2	87	TSE works compliant.
CN_02, Hume Street, Crows Nest	15/04/2018	Attended	Y	LAeq 15 Min	54.6	-	No TSE construction works. Background reading.
CN_02, Hume Street, Crows Nest	15/04/2018	Attended	Y	LAeq 15 Min	58.4	82	TSE works compliant.
BN_02, Hickson Road, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	66.9	73	TSE works compliant. Traffic and pub dominant noise source.
BN_02, Munn Street, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	61.0	63	TSE works compliant. Traffic and pub dominant noise source.
BN_03, High Street, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	56.2	64	TSE works compliant. Traffic dominant noise source.
BN_03, High Street, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	53.2	63	TSE works compliant.
BN_03, High Street, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	59.4	63	TSE works compliant.
BN_03, High Street, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	61.0	64	TSE works compliant.
BN_03, High Street, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	57.8	64	TSE works compliant.
BN_03, High Street, Millers Point	18/04/2018	Attended	Y	LAeq 15 Min	53.6	63	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
MP_03, O'Connell Street, Sydney	18/04/2018	Attended	Y	LAeq 15 Min	69.5	75	TSE works compliant.
MP_01, Martin Place, Sydney	18/04/2018	Attended	Y	LAeq 15 Min	71.1	75	TSE works compliant.
PS_03, Elizabeth Street, Sydney	19/04/2018	Attended	Y	LAeq 15 Min	74.9	85	TSE works compliant.
MP_04, Martin Place, Sydney	19/04/2018	Attended	Y	LAeq 15 Min	70.9	72	TSE works compliant.
PS_03, Castlereagh Street, Sydney	19/04/2018	Attended	Y	LAeq 15 Min	73.0	103	TSE works compliant.
MP_01, Castlereagh Street, Sydney	20/04/2018	Attended	Y	LAeq 15 Min	69.2	90	TSE works compliant.
PS_03, Castlereagh Street, Sydney	24/04/2018	Attended	Y	LAeq 15 Min	49.4	103	TSE works compliant.
WS_03, Wellington Street, Waterloo	26/04/2018	Attended	Y	LAeq 15 Min	63.1	62	TSE works compliant. Traffic dominant noise source.
BN_03, High Street, Millers Point	26/04/2018	Attended	Y	LAeq 15 Min	59.5	62	TSE works compliant.
BN_02, Munn Street, Millers Point	26/04/2018	Attended	Y	LAeq 15 Min	69.9	74	TSE works compliant.
MP_03, Pitt street, Sydney	26/04/2018	Attended	Y	LAeq 15 Min	68.2	76	TSE works compliant. Traffic dominant noise source.

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
VC_04, Miller Street, Victoria Cross	27/04/2018	Attended	Y	LAeq 15 Min	53.0	60	TSE works compliant.
BN_02, Munn Street, Millers Point	27/04/2018	Attended	Y	LAeq 15 Min	70.1	74	TSE works compliant.
BN_03, High Street, Millers Point	27/04/2018	Attended	Y	LAeq 15 Min	61.6	62	TSE works compliant.
BN_03, High Street, Millers Point	27/04/2018	Attended	Y	LAeq 15 Min	51.4	62	TSE works compliant.
BN_02, Munn Street, Millers Point	27/04/2018	Attended	Y	LAeq 15 Min	54.7	74	TSE works compliant.
PS_02, Castlereagh Street, Sydney	27/04/2018	Attended	Y	LAeq 15 Min	72.3	58	TSE works compliant. Heavy rain and traffic dominant noise sources.
PS_03, Castlereagh Street, Sydney	27/04/2018	Attended	Y	LAeq 15 Min	72.2	72	TSE works Compliant. Heavy rain and traffic dominant noise sources.
MP_03, Hunter Street, Sydney	27/04/2018	Attended	Y	LAeq 15 Min	70.0	70	TSE works compliant.
MP_01, Castlereagh Street, Sydney	27/04/2018	Attended	Y	LAeq 15 Min	72.8	69	TSE works compliant. Traffic dominant noise source.
MP_03, Pitt Street, Sydney	27/04/2018	Attended	Y	LAeq 15 Min	67.7	84	TSE works compliant.