



# Environmental Monitoring Data

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Project: Sydney Metro City & Southwest– TSE Works

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## Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
01	13/03/18	R. Batch	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 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 <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	CN-1	12/02/18	Y	7.8	1.7	Nil	Discharge compliant
2	CN-1	28/02/18	Y	8.0	25.0	Nil	Discharge compliant
2	MD-1	26/02/18	Y	7.7	30.0	Nil	Discharge compliant

<sup>1</sup> 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
Nelson St, Chatswood	06/02/18	Attended	Y	0.86	0.50	Works compliant as respite period applied for human comfort level.
Nelson St, Chatswood	06/02/18	Attended	Y	0.23	7.50	Works compliant.
Clarke Street, St Leonards	27/02/18	Attended	Y	0.87	0.50	Works compliant. Peak cause from traffic, works contributing average of 0.17mm/s
Pitt St, Sydney	28/02/18	Continuous	Y	7.27	0.50	Works compliant as respite period applied for human comfort level.

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_02, Hume St, Crows Nest	01/02/2018	Attended	Yes	Laeq(15min)	63.1	68	Validation monitoring. Works compliant.
BN_03, High St, Millers Point	01/02/2018	Attended	Yes	Laeq(15min)	50.5	45	Validation monitoring. High winds (34km/h) dominant noise source and rendered monitoring invalid.
BN_02, Munn St, Millers Point	01/02/2018	Attended	Yes	Laeq(15min)	48.8	50	Validation monitoring. Works compliant.
MP_03, Hunter St, Sydney	01/02/2018	Attended	Yes	Laeq(15min)	70.9	88	Validation monitoring. Works compliant.
CN_02, Hume St, Crows Nest	01/02/2018	Attended	Yes	Laeq(15min)	64.6	74	Validation monitoring. Works compliant.
CN_04, Pacific Hwy, Crows Nest	01/02/2018	Attended	Yes	Laeq(15min)	69.7	74	Validation monitoring. Works compliant.
CN_01, Pacific Hwy, Crows Nest	01/02/2018	Attended	Yes	Laeq(15min)	72.0	78	Validation monitoring. Works compliant.
CDS_03, Nelson St, Chatswood	02/02/2018	Attended	Yes	Laeq(15min)	62.3	75	Validation monitoring. Works compliant.
CN_02, Hume St, Crows Nest	02/02/2018	Attended	Yes	Laeq(15min)	65.5	82	Validation monitoring. Works compliant.
CN_04, Pacific Hwy, Crows Nest	02/02/2018	Attended	Yes	Laeq(15min)	73.6	85	Validation monitoring. 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_01, Clarke St, Crows Nest	02/02/2018	Attended	Yes	Laeq(15min)	63.8	91	Validation monitoring. Works compliant.
MP_03, O'Connell St, Sydney	05/02/2018	Attended	Yes	Laeq(15min)	74.9	98	Validation monitoring. Works compliant.
MP_03, Bligh St, Sydney	05/02/2018	Attended	Yes	Laeq(15min)	72.4	100	Validation monitoring. Works compliant.
MP_03, Hunter St, Sydney	05/02/2018	Attended	Yes	Laeq(15min)	73.8	88	Validation monitoring. Works compliant.
MP_03, Pitt St, Sydney	05/02/2018	Attended	Yes	Laeq(15min)	70.1	88	Validation monitoring. Works compliant.
BN_03, High St, Millers Point	07/02/2018	Attended	Yes	Laeq(15min)	50.6	66	Validation monitoring. Works compliant.
BN_02, Munn St, Millers Point	07/02/2018	Attended	Yes	Laeq(15min)	54.6	66	Validation monitoring. Works compliant.
BN_03, High St, Millers Point	07/02/2018	Attended	Yes	Laeq(15min)	49.6	66	Validation monitoring. Works compliant.
CN_02, Hume St, Crows Nest	07/02/2018	Attended	Yes	Laeq(15min)	61.3	83	Validation monitoring. Works compliant.
CN_04, Pacific Hwy, Crows Nest	07/02/2018	Attended	Yes	Laeq(15min)	69.5	68	Validation monitoring. Works were compliant. Traffic was the dominant noise source.
CN_02, Hume St, Crows Nest	08/02/2018	Attended	Yes	Laeq(15min)	50.8	68	Validation monitoring. 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 Rd, Chatswood	08/02/2018	Attended	Yes	Laeq(15min)	65.6	90	Validation monitoring. Works compliant.
CDS_06, Mowbray Rd, Chatswood	08/02/2018	Attended	Yes	Laeq(15min)	68.5	90	Validation monitoring. Works compliant.
CDS_02 Pacific Hwy, Chatswood	08/02/2018	Attended	Yes	Laeq(15min)	73.0	67	Validation monitoring. Works inaudible. Traffic dominant noise source.
CDS_03, Nelson St, Chatswood	08/02/2018	Attended	Yes	Laeq(15min)	53.7	66	Validation monitoring. Works compliant.
CDS_06, Mowbray Rd, Chatswood	08/02/2018	Attended	Yes	Laeq(15min)	63.1	81	Validation monitoring. Works compliant.
CDS_06, Mowbray Rd, Chatswood	09/02/2018	Attended	Yes	Laeq(15min)	69.9	74	Validation monitoring. Works compliant.
MP_03, O'Connell St, Sydney	08/02/2018	Attended	Yes	Laeq(15min)	54.2	60	Validation monitoring. Works compliant.
MP_03, O'Connell St, Sydney	09/02/2018	Attended	Yes	Laeq(15min)	57.6	60	Validation monitoring. Works compliant.
BN_02, Windmill St, Millers Point	15/02/2018	Attended	Yes	Laeq(15min)	44.5	60	Validation monitoring. Works compliant.
BN_02, Windmill St, Millers Point	15/02/2018	Attended	Yes	Laeq(15min)	74.3	80	Validation monitoring. Works compliant.
MDS_02, Lord St, Newtown	14/02/2018	Attended	Yes	Laeq(15min)	76.7	79	Validation monitoring. 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_02, Lord St, Newtown	14/02/2018	Attended	Yes	Laeq(15min)	77.1	77	Validation monitoring. Works compliant. Winds (53km/hr) dominant.
MDS_03, Council St, St Peters	20/02/2018	Attended	Yes	Laeq(15min)	85.0	94	Validation monitoring. Works compliant.
MDS_03, Hutchinson St, St Peters	20/02/2018	Attended	Yes	Laeq(15min)	75.1	90	Validation monitoring. Works compliant.
MDS_04, Unwins Bridge Rd, St Peters	20/02/2018	Attended	Yes	Laeq(15min)	67.2	51	Validation monitoring. Works inaudible at monitoring location. Traffic was dominant noise source.
MDS_03, Hutchinson St, St Peters	20/02/2018	Attended	Yes	Laeq(15min)	75.8	90	Validation monitoring. Works compliant.
MDS_03, Council St, St Peters	20/02/2018	Attended	Yes	Laeq(15min)	74.4	94	Validation monitoring. Works compliant.
MDS_04, Unwins Bridge Rd, St Peters	20/02/2018	Attended	Yes	Laeq(15min)	66.5	51	Validation monitoring. Works inaudible at monitoring location. Traffic was dominant noise source.
MDS_03, Council St, St Peters	21/02/2018	Attended	Yes	Laeq(15min)	69.5	77	Validation monitoring. Works compliant.
MDS_03, Hutchinson St, St Peters	21/02/2018	Attended	Yes	Laeq(15min)	66.6	73	Validation monitoring. Works compliant.
MP_03, Hunter St, Sydney	21/02/2018	Attended	Yes	Laeq(15min)	68.2	91	Validation monitoring. 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, Hunter St, Sydney	21/02/2018	Attended	Yes	Laeq(15min)	69.4	91	Validation monitoring. Works compliant.
MP_03, Hunter St, Sydney	21/02/2018	Attended	Yes	Laeq(15min)	69.0	91	Validation monitoring. Works compliant.
MP_03, Hunter St, Sydney	21/02/2018	Attended	Yes	Laeq(15min)	69.4	91	Validation monitoring. Works compliant.
CN_04, Pacific Hwy, Crows Nest	22/02/2018	Attended	Yes	Laeq(15min)	69.1	68	Validation monitoring. Works were compliant. Traffic was the dominant noise source.
MP_03, Hunter St, Sydney	22/02/2018	Attended	Yes	Laeq(15min)	64.0	78	Validation monitoring. Works compliant.
CN_03, Clarke St, Crows Nest	22/02/2018	Attended	Yes	Laeq(15min)	65.6	93	Validation monitoring. Works compliant.
CN_01, Clarke St, Crows Nest	22/02/2018	Attended	Yes	Laeq(15min)	68.4	91	Validation monitoring. Works compliant.
WS_01, Botany Rd, Waterloo	22/02/2018	Attended	Yes	Laeq(15min)	72.7	72	Validation monitoring. Works almost inaudible at monitoring location. Traffic was dominant noise source.
WS_03, Wellington St, Waterloo	22/02/2018	Attended	Yes	Laeq(15min)	61.9	72	Validation monitoring. Works compliant.
WS_02, Cope St, Waterloo	22/02/2018	Attended	Yes	Laeq(15min)	59.5	68	Validation monitoring. Works compliant.
CN_01, Clarke St, Crows Nest	27/02/2018	Attended	Yes	Laeq(15min)	73.7	92	Validation monitoring. 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, Pacific Hwy, Crows Nest	27/02/2018	Attended	Yes	Laeq(15min)	82.2	83	Validation monitoring. Works compliant.
BN_03, High St, Millers Point	27/02/2018	Attended	Yes	Laeq(15min)	51.2	54	Validation monitoring. Works compliant.
BN_02, Munn St, Millers Point	27/02/2018	Attended	Yes	Laeq(15min)	56.1	65	Validation monitoring. Works compliant.
VC_07, Miler St, Victoria Cross	27/02/2018	Attended	Yes	Laeq(15min)	64.4	66	Validation monitoring. Works compliant.
BN_02, Munn St, Millers Point	28/02/2018	Attended	Yes	Laeq(15min)	50.4	50	Validation monitoring. Works were compliant. Traffic was the dominant noise source.
BN_03, High St, Millers Point	28/02/2018	Attended	Yes	Laeq(15min)	47.1	45	Validation monitoring. Works were compliant. Traffic was the dominant noise source.
CN_04, Pacific Hwy, Crows Nest	28/02/2018	Attended	Yes	Laeq(15min)	70.1	83	Validation monitoring. Works compliant.
CN_04, Pacific Hwy, Crows Nest	28/02/2018	Attended	Yes	Laeq(15min)	73.3	83	Validation monitoring. Works compliant.
MP_02,38/46 Martin Pl, Sydney	28/02/2018	Attended	Yes	Laeq(15min)	69.7	76	Validation monitoring. Works compliant.