

Environmental Monitoring Data

Project: Sydney Gateway Project

Document Number: SGWPW-JHSW-NWW-EN-RPT-059153

Reporting Period: November 2021

Date Published: 07 December 2021

Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
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Project Summary

The Sydney Gateway Road Project ('the Project') is a new direct high-capacity road connection linking the Sydney motorway network at St Peters interchange, where the M4 and M8 motorways meet, with Sydney Airport's domestic and international terminals and the Port Botany Precinct. John Holland Seymour Whyte have been contracted by Transport for New South Wales to design and construct the works for the Sydney Gateway Road Project. Figure 1 provides an overview of the Project.

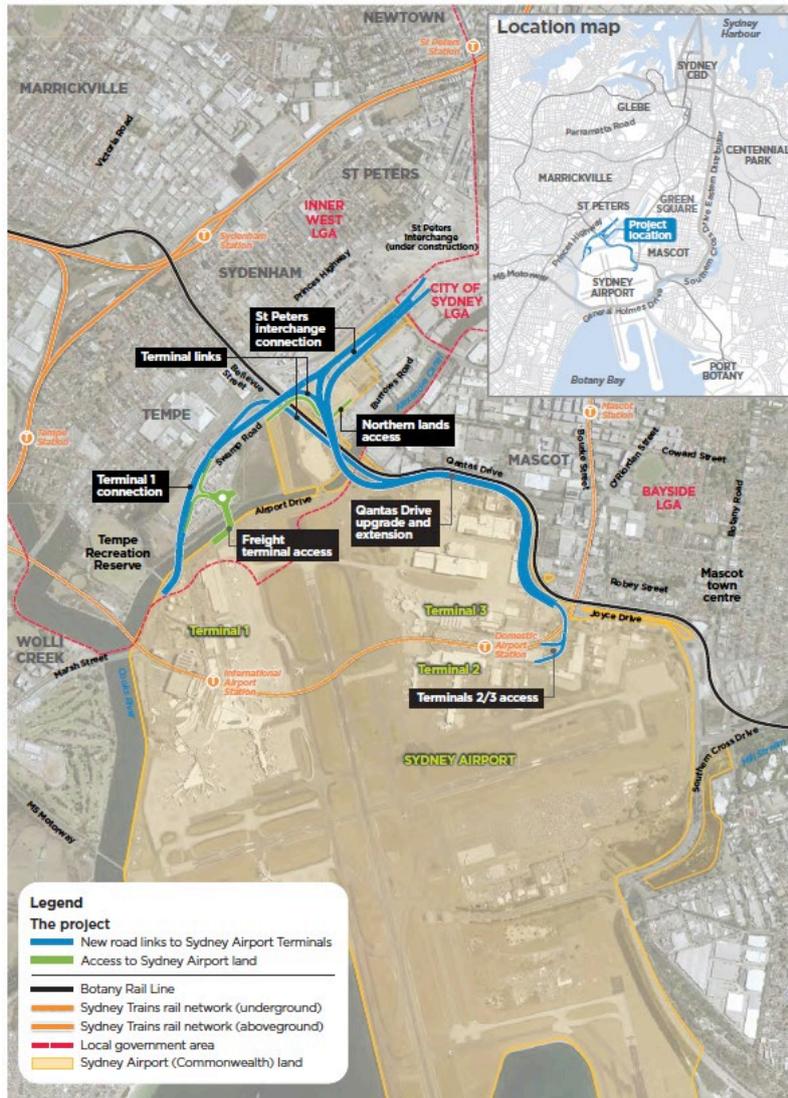


Figure 1: Project Overview

Environmental Protection Licence and Reporting Requirements

John Holland Pty Ltd obtained the Environment Protection Licence (EPL No. 21524) from the NSW Environment Protection Authority for the Project on behalf of the John Holland Seymour (JHSW) Joint Venture. The licence is for construction works relating Scheduled Activities 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 Works. 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: [ViewPOEOLicence.aspx](https://www.epa.nsw.gov.au/ViewPOEOLicence.aspx) ([nsw.gov.au](https://www.epa.nsw.gov.au/))

Noise and Vibration Monitoring

Noise and vibration monitoring was undertaken during this reporting period. Table 1 contains the vibration monitoring results, and Table 2 contains the noise monitoring results.

Vibration monitoring results were recorded below the adopted structural damage criteria and therefore are considered compliant with the EPL. Further training will be provided to site teams to ensure that monitors are switched off before moving to reduce the number of false positives recorded.

LEaq 15min readings collected during November were recorded above the predicted level. In all circumstances, elevated LEaq readings can be attributed to local traffic passing the monitoring point. Construction noise was noted as being below the predicted noise level in all instances and it was therefore concluded that traffic was the dominant noise source, not construction activities. All noise readings collected in November are therefore considered to be compliant with the project EPL.

Discharge Water Quality Monitoring

No water was discharged from the premises area during the November 2021 reporting period. Water treatment plants are yet to be commissioned. Discharge monitoring data is displayed in Table 3.

Landfill Gas and Gas Accumulation Monitoring

Landfill gas and gas accumulation monitoring was undertaken during the November 2021 monitoring period. Results are summarised in Table 4 below.

Methane was recorded below the adopted criteria in all monitoring wells outside the bentonite cut-off wall. Sample locations GW9A and GW14 recorded methane levels consistent with historic results, both GW9A and GW14 are located within the landfill.

Table 1: Vibration Monitoring Data.

Monitoring location	Monitoring Date	Attended or Continuous Monitoring	Measured VDV (m/s ^{1.75})	VDV Target (m/s ^{1.75})	VDV Compliant	Measured PPV (mm/s)	PPV Target (mm/s)	PPV Compliant
Desal Pipeline (sheet piling)	01/11/21	Continuous	N/A	N/A	N/A	2.61	20	Yes
Desal Pipeline (ATL)	02/11/21 – 05/11/21	Continuous	N/A	N/A	N/A	3.18	20	Yes
Desal Pipeline (Bentonite wall)	16/11/21 – 17/11/21	Continuous	N/A	N/A	N/A	45.03	20	Yes ¹
Desal Pipeline (sheet piling)	17/11/21	Continuous	N/A	N/A	N/A	23.47	20	Yes ²
Desal Pipeline (sheet piling)	22/11/21	Continuous	N/A	N/A	N/A	53.33	20	Yes ³
Desal Pipeline (Bentonite wall)	18/11/21 – 19/11/21	Continuous	N/A	N/A	N/A	18.87	20	Yes
Desal Pipeline (Bentonite wall)	23/11/21 – 24/11/21	Continuous	N/A	N/A	N/A	2.47	20	Yes
Desal Pipeline (Bentonite wall)	30/11/21	Continuous	N/A	N/A	N/A	0.67	20	Yes

1. Exceedance from setting up monitor, not from works. Maximum of 1.39mm/s recorded during works which is below the structural vibration limit adopted for the Desal pipeline
2. Monitor not turned off before moving to new location. Max recording from works 10.67mm/s which is below the structural vibration limit adopted for the Desal pipeline
3. Monitor not turned off before moving monitor. Max reading from works 12.73mm/s which is below the structural vibration limit adopted for the Desal pipeline

Table 2: Noise Monitoring Data

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
NCA_03, 3 Hart Street, Tempe	01/11/2021	Attended	LEaq 15min	55.2	52	SG Works Compliant - Traffic dominant noise source
NCA_03, 3 Hart Street, Tempe	02/11/2021	Attended	LEaq 15min	57.9	52	SG Works Compliant - Traffic dominant noise source
NCA_06, 260 Coward Street, Mascot	08/11/2021	Attended	LEaq 15min	60.0	59	SG Works Compliant - Traffic dominant noise source
NCA_06, 260 Coward Street, Mascot	09/11/2021	Attended	LEaq 15min	59.9	59	SG Works Compliant - Traffic dominant noise source

Table 3: Discharge Monitoring Data

No discharge occurred, no data to display.

Table 4: Landfill Gas Monitoring Results (19/11/2021)

EPA identification no.	Type of Monitoring Point*	Methane Limit	Results (Stabilised)
GW1A	Landfill Gas Monitoring ¹	1%v/v	0
GW2	Landfill Gas Monitoring ¹	1%v/v	0
GW3	Landfill Gas Monitoring ¹	1%v/v	0
GW4A	Landfill Gas Monitoring ¹	1%v/v	0
GW5A	Landfill Gas Monitoring ¹	1%v/v	0
GW6A	Landfill Gas Monitoring ¹	1%v/v	0
GW7	Landfill Gas Monitoring ¹	1%v/v	Destroyed unable to be sampled
GW8	Landfill Gas Monitoring ¹	1%v/v	Destroyed unable to be sampled
GW9A	Landfill Gas Monitoring ²	N/A	26.7
GW11A	Landfill Gas Monitoring ¹	1%v/v	0
GW12	Landfill Gas Monitoring ²	1%v/v	Destroyed unable to be sampled
GW13	Landfill Gas Monitoring ¹	1%v/v	Destroyed unable to be sampled
GW14	Landfill Gas Monitoring ²	N/A	6.2
GW16	Landfill Gas Monitoring ¹	1%v/v	0
GW19A	Landfill Gas Monitoring ¹	1%v/v	0
GW22s	Landfill Gas Monitoring ¹	1%v/v	0
OSA1	Gas Accumulation Monitoring ³	500ppm	0
OSA2	Gas Accumulation Monitoring ³	500ppm	0
OSA3	Gas Accumulation Monitoring ³	500ppm	0
C3 Site Compound	Gas Accumulation Monitoring ⁴	500ppm	0

1. Outside the passive interception and venting trench
2. Inside the passive interception and venting trench
3. Gas accumulation monitoring within buildings located outside of the landfill boundary
4. Gas accumulation monitoring within buildings located onsite