



EPL Environmental Monitoring Data

Project: Sydney Gateway Project

Document Number: SGWPW-JHSW-NWW-EN-RPT- 059289

Reporting Period: April 2023

Date Published: 03 May 2023

Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
01	03/05/2023	J. Paul	A. Wray	R. Muir	For publication

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.

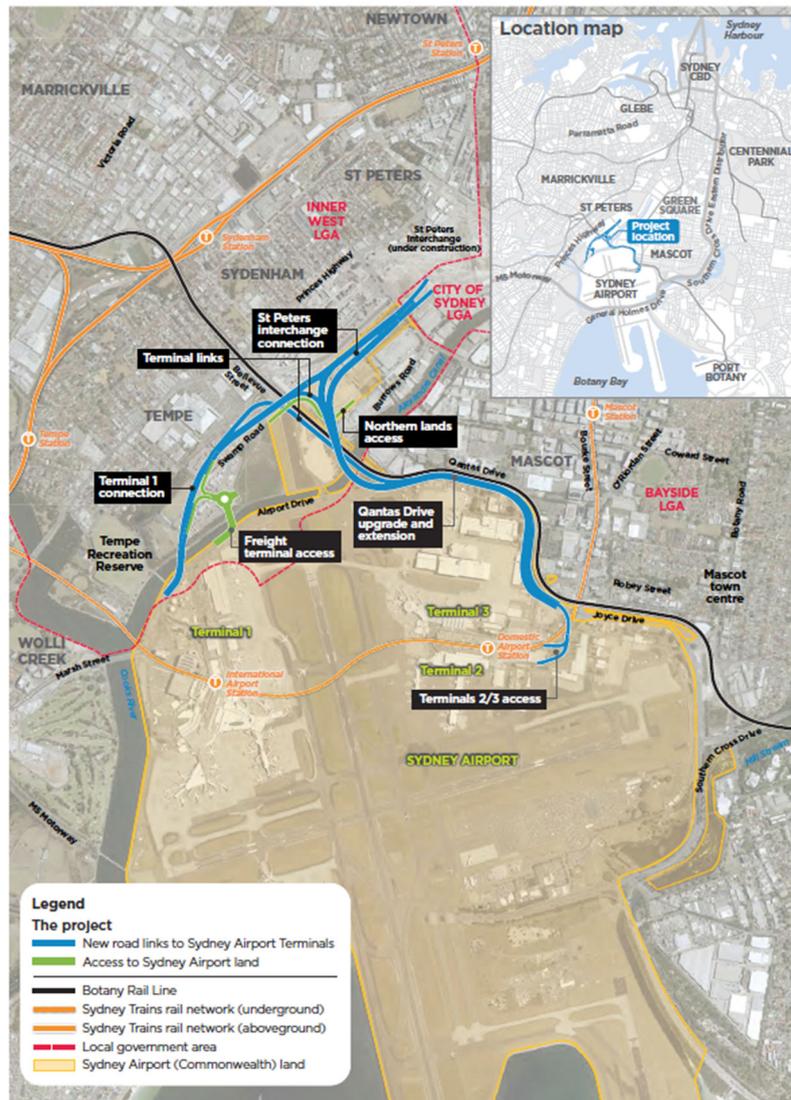


Figure 1: Project Overview

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\(nsw.gov.au\)](http://ViewPOEOLicence.aspx(nsw.gov.au))

Noise and Vibration Monitoring

Vibration

Vibration monitoring was undertaken during the reporting period, all works were deemed compliant. Table 1 contains the vibration monitoring data. Results were recorded below the adopted structural damage criteria on all occasions.

Noise

Noise monitoring was undertaken during the reporting period, all works were deemed compliant as the noise sources were predominantly dominated by background noise sources, local traffic and aircraft movements. Table 2 contains the noise monitoring results.

Discharge Water Quality Monitoring

Offsite discharge from the 30L/s WTP occurred during April 2023. All discharges were compliant. See Table 3 for sample results.

Landfill Gas and Gas Accumulation Monitoring

Landfill gas and gas accumulation monitoring was undertaken during the April 2023 monitoring period. Results are summarised in Table 4 below.

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	Comment
2 Station Street, Tempe	12/04/2023	Attended	0.21	0.4	Yes	0.32	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
5 Wentworth Street, Tempe	12/04/2023	Attended	0.35	0.4	Yes	1.73	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
5 Smith St, Tempe	27/04/2023	Attended	0.07	0.4	Yes	0.1	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
3 Bellevue St, Mascot	27/04/2023	Attended	0.11	0.4	Yes	0.17	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.

Note:

1. VDV – Vibration Dose Value
2. PPV – Peak Particle Velocity

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)	Project OOHW Compliance	Comments
1 Hart Street, Tempe	04/04/2023	Attended	LAeq 15 min	46.6	41	Compliant	Traffic passing on Princes Highway and background noise from Tempe Lands Park were the dominant noise source and reason for exceedance. Sydney Gateway project works were not audible throughout the monitoring period. Sydney Gateway works compliant.
5 Wentworth Street, Tempe	04/04/2023	Attended	LAeq 15 min	46.8	43	Compliant	Traffic on Princes Highway and background noise from Tempe Lands Park were the dominant noise source and reason for exceedance. Sydney Gateway works compliant with predicted noise levels.
2 Fanning Street, Tempe	05/04/2023	Attended	LAeq 15 min	47.7	44	Compliant	Traffic on Princes Highway and background noise from Tempe Lands Park were the dominant noise source and reason for exceedance. Sydney Gateway works compliant with predicted noise levels.
1 Barden Street, Tempe	05/04/2023	Attended	LAeq 15 min	43.7	41	Compliant	Traffic on South Street, Fanning Street, Princes Highway and background noise from Tempe Lands Park were the dominant noise source and reason for exceedance. Sydney Gateway works compliant with predicted noise levels.
5 Wentworth Street, Tempe	12/04/2023	Attended	LAeq 15 min	63.0	52	Compliant	Background noise from local fauna, traffic and aeroplanes were the dominant noise source and reason for exceedance. Sydney Gateway works compliant with predicted noise levels.
2 Station Street, Tempe	12/04/2023	Attended	LAeq 15 min	53.6	52	Compliant	Non-Project related construction works, traffic and aeroplanes were the dominant noise source and reason for exceedance. Sydney Gateway works compliant with predicted noise levels.
177 Princes Hwy, Tempe	19/04/2023	Attended	LAeq 15 min	69.3	34	Compliant	Traffic passing on Princes Highway was the dominant noise source and reason for exceedance. Sydney Gateway project works were not audible throughout the monitoring period. Sydney Gateway works compliant.
4 Hart St, Tempe	27/04/2023	Attended	LAeq 15 min	62.5	64	Compliant	Background noise from local fauna, traffic and aeroplanes were the dominant noise source and reason for exceedance. Sydney Gateway project works were not audible throughout the monitoring period. Sydney Gateway works compliant within predicted noise levels.
5 Smith Street, Tempe	27/04/2023	Attended	LAeq 15 min	63.3	69	Compliant	Background noise from local residents, traffic and aeroplanes were the dominant noise source and reason for exceedance. Sydney Gateway project works were not audible throughout the monitoring period. Sydney Gateway works compliant within predicted noise levels.
3 Bellevue Street, Tempe	27/04/2023	Attended	LAeq 15 min	70.9	62	Compliant	Background noise from traffic and aeroplanes were the dominant noise source and reason for exceedance. Sydney Gateway project works were not audible throughout the monitoring period. Sydney Gateway works compliant within predicted noise levels.

Note:

1. LAeq (15min) - The A-weighted equivalent continuous (energy average) A-weighted sound pressure level over a 15-minute period.
2. dBA - Decibels using the A-weighted scale measured according to the frequency of the human ear.

Table 3: WTP Discharge Monitoring Data

Analyte	Units	Limit	12/04/2023	Comments
pH	Ph Unit	7 - 8.5	7.79	Compliant
Turbidity	NTU	10	2.1	Compliant
Arsenic (iii)	mg/L	0.0023	<0.001	Compliant
Arsenic (V)	mg/L	0.0045	<0.001	Compliant
Barium (Dissolved)	mg/L	2	<0.001	Compliant
Cadmium (dissolved)	mg/L	0.0055	<0.0001	Compliant
Copper (dissolved)	mg/L	0.003	<0.001	Compliant
Cobalt (dissolved)	mg/L	0.014	<0.001	Compliant
Nickel (dissolved)	mg/L	0.07	0.001	Compliant
Lead (dissolved)	mg/L	0.0066	<0.001	Compliant
Zinc (Dissolved)	mg/L	0.023	<0.005	Compliant
Manganese (dissolved)	mg/L	0.08	<0.001	Compliant
Boron	mg/L	5.1	0.58	Compliant
Iron (dissolved)	mg/L	0.3	<0.05	Compliant
Mercury (dissolved)	mg/L	0.0004	<0.0001	Compliant
Chromium (Trivalent)	mg/L	0.049	<0.01	Compliant
Chromium (hexavalent)	mg/L	0.02	<0.01	Compliant
Ammonia	mg/L	1.2	<0.1	Compliant
Nitrate + nitrite (oxidised nitrogen)	mg/L	0.015	0.013	Compliant
Nitrogen (total)	mg/L	0.3	0.28	Compliant
Phosphorus (total)	mg/L	0.03	0.014	Compliant
TPH C10-C36 Fraction	µg/L	600	590	Compliant
TPH C6-C9 Fraction	µg/L	150	100	Compliant
Ethylbenzene	µg/L	110	2	Compliant
m-Xylene	µg/L	100	2	Compliant
p-Xylene	µg/L	250	2	Compliant
o-Xylene	µg/L	470	2	Compliant
Naphthalene	µg/L	70	<5	Compliant
Anthracene	µg/L	0.4	<0.1	Compliant
Benzo(a)pyrene	µg/L	0.2	<0.05	Compliant
Fluoranthene	µg/L	1.4	<0.1	Compliant
Phenanthrene	µg/L	2	<0.1	Compliant
Perfluorooctane sulphonate (PFOS)	µg/L	0.13	<0.01	Compliant
Perfluorooctanoic acid (PFOA)	µg/L	220	<0.01	Compliant

Table 4: Landfill Gas Monitoring Results (14 April 2023)

EPA identification no.	Type of Monitoring Point*	Methane Limit	Results (Stabilised)%	Comment
GW1A	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW2	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW3	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW4A	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW5A	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW6A	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
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
GW9	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW9A	Landfill Gas Monitoring ²	N/A	-	Unable to be sampled
GW11A	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
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	3.9	Compliant
GW16	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW17	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW19A	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW22s	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
JHSW-LFG02	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
OSA1	Gas Accumulation Monitoring ³	500ppm	<3	Compliant
OSA2	Gas Accumulation Monitoring ³	500ppm	<3	Compliant
OSA3	Gas Accumulation Monitoring ³	500ppm	<3	Compliant
C3 Site Compound	Gas Accumulation Monitoring ⁴	500ppm	<3	Compliant

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