EPL Environmental Monitoring Data

Project:	Sydney Gateway Project
Document Number:	SGWPW-JHSW-NWW-EN-RPT- 059317
Reporting Period:	August 2023
Date Published:	08 September 2023

Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
01	08/09/2023	J. Paul	A.Wray	A. Major	For publication
02	15/09/2023	A.Wray			Update.

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.

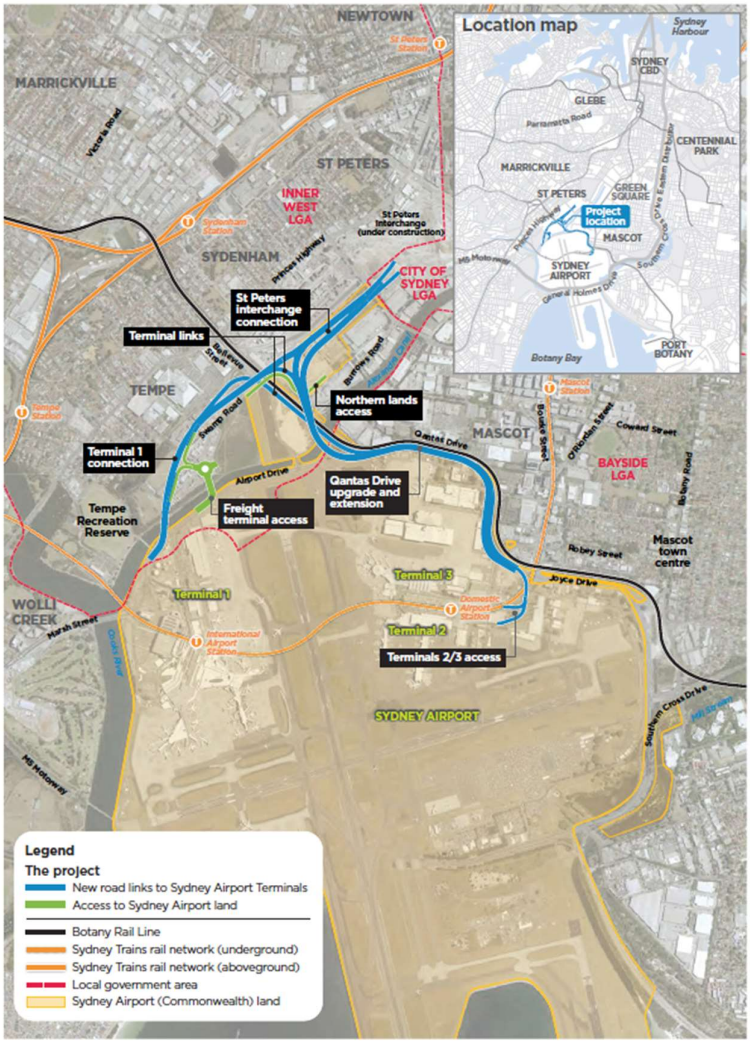

Figure 1: Project Overview

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 to road construction 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)

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 occurred during August 2023 via Tradewaste agreement only. Discharges were complaint with the requirements of the Tradewaste agreement during August 2023.

Landfill Gas and Gas Accumulation Monitoring

Quarterly landfill gas and gas accumulation monitoring was undertaken during the August 2023 monitoring period. Results are summarised in Table 3 below.

During the August monitoring round an elevated methane (stabilised) reading was observed on 11/08/2023 (1.5 %v/v of methane in GW19A). The exceedance triggered the contingency measures outlined in the Landfill Leachate, Gas and Odour Management Sub-Plan (LLGOMP) and Environmental Protection Licence (EPL) (No. 21524). As a result, the EPA and Site Auditor were notified on the day of the exceedance and targeted daily gas monitoring was implemented. This targeted monitoring is in accordance with the LLGOMP and the EPL. The monitoring results and risk level were assessed by WSP between 11/08/2023 and 23/08/2023. The assessment determined that no further specific risk mitigation is warranted, and a report was provided to the EPA and Site Auditor on 25/08/2023 that outlined this position. Following auditor endorsement of this approach on 25/08/23, the EPA advised that based on the report, daily monitoring was no longer required and monitoring could return to a quarterly frequency on 28/08/2023 in accordance with the LLOMP and the EPL.

JHSW have decided to temporarily resume monitoring on a monthly basis as a conservative approach going forward.

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/Field Observations
2 Bellevue Street, Tempe	9/08/2023	Attended	0.1	0.4	Yes	0.17	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
1 Station Street, Tempe	9/08/2023	Attended	0.2	0.4	Yes	0.38	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
241 O'Riordan Street, Mascot	29/08/2023	Continuous	N/A	N/A	Yes	1.5	25	Yes	Works were monitored and found to be compliant with structural criteria.
2 Hart St, Tempe	30/08/2023	Attended	0.1	0.4	Yes	0.12	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/Field Observations
2 Bellevue Street, Tempe	9/08/2023	Attended	LAeq 15 min	69.8	56	Compliant	Traffic from Princes Highway and aeroplanes were the dominant noise sources. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
1 Station St, Tempe	9/08/2023	Attended	LAeq 15 min	59.4	59	Compliant	Traffic from South Street was the dominant noise source. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
2 Bellevue Street, Tempe	18/08/2023	Attended	LAeq 15 min	73.5	56	Compliant	Traffic from Princes Highway was the dominant noise source. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
2 Fanning Street, Tempe	23/08/2023	Attended	LAeq 15 min	49.0	43	Compliant	Traffic from Princes Highway and background noise from Tempe Lands Park were the dominant noise sources. Sydney Gateway works were compliant with predicted noise levels.
20 Barden Street, Tempe	23/08/2023	Attended	LAeq 15 min	46.5	42	Compliant	Aeroplanes and background noise from Tempe Lands Park were the dominant noise sources. Sydney Gateway works were compliant with 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: Landfill Gas Monitoring Results

ID	Type	Methane Limit	Results (Stabilised)%										
			11/08/23	14/08/23	15/08/23	16/08/23	17/08/23	18/08/23	21/08/23	22/08/23	23/08/23	24/08/23	25/08/23
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	-	-	-	-	-	-	-	-	-	-	-
GW8	Landfill Gas Monitoring[1]	1%v/v	-	-	-	-	-	-	-	-	-	-	-
GW9	Landfill Gas Monitoring[1]	1%v/v	0	0	0	0	0	0	0	0	0.1	0	0
GW9A	Landfill Gas Monitoring[2]	N/A	-	-	-	-	-	-	-	-	-	-	-
GW11A	Landfill Gas Monitoring[1]	1%v/v	0	0	0	0	-	0	0	-	-	0	-
GW12	Landfill Gas Monitoring[2]	1%v/v	-	-	-	-	-	-	-	-	-	-	-
GW13	Landfill Gas Monitoring[1]	1%v/v	-	-	-	-	-	-	-	-	-	-	-
GW14	Landfill Gas Monitoring[2]	N/A	8.7	-	7.6	0.1	4.8	7.7	4.4	8.3	0.1	1.4	6
GW16	Landfill Gas Monitoring[1]	1%v/v	0	0	0	0.2	0	0	0	0	0.1	0	0
GW17	Landfill Gas Monitoring[1]	1%v/v	0	0	0	0.3	0	0	0	0	0	0	0
GW19A	Landfill Gas Monitoring[1]	1%v/v	1.5	1.3	1	1.9	0.3	0.4	0	0	0.1	0	0
GW22s	Landfill Gas Monitoring[1]	1%v/v	0	-	-	-	-	-	-	-	-	-	-
JHSW-LFG02	Landfill Gas Monitoring[1]	1%v/v	0	0	0	0	0	0	0	0	0.1	0	0
OSA1	Gas Accumulation Monitoring[3]	500ppm	<3	-	-	-	-	-	-	-	-	-	-
OSA2	Gas Accumulation Monitoring[3]	500ppm	<3	-	-	-	-	-	-	-	-	-	-
OSA3	Gas Accumulation Monitoring[3]	500ppm	<3	-	-	-	-	-	-	-	-	-	-
C3 Site Compound	Gas Accumulation Monitoring[4]	500ppm	<3	-	-	-	-	-	-	-	-	-	-

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