EPL Environmental Monitoring Data

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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.

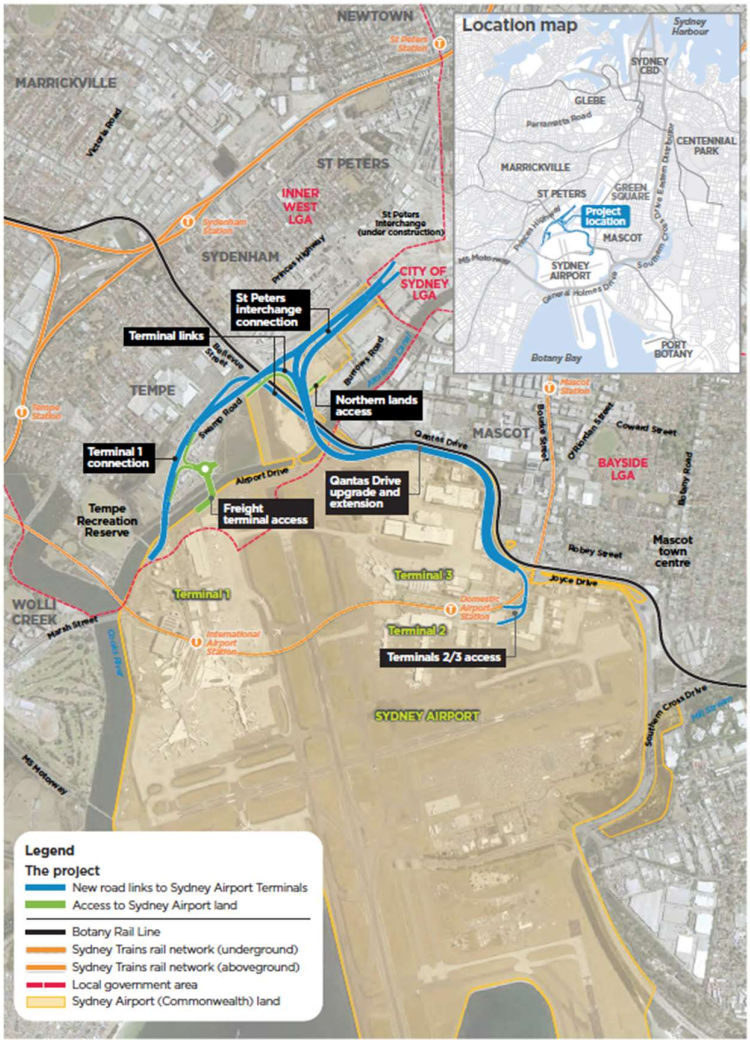

Figure 1: Project Overview

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 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 September 2023 via Tradewaste agreement only. Discharges were compliant with the requirements of the Tradewaste agreement during September 2023.

Landfill Gas and Gas Accumulation Monitoring

Monthly landfill gas and gas accumulation monitoring was undertaken during the September 2023 monitoring period. Results are summarised in Table 3.

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
3 Bellevue Street, Tempe	11/09/2023	Attended	0.1	0.4	Yes	0.11	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
3 South Street, Tempe	11/09/2023	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.
2 Fanning Street, Tempe	11/09/2023	Attended	0.1	0.4	Yes	0.11	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
2 Bellevue Street, Tempe	15/09/2023	Attended	0.1	0.4	Yes	0.16	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
6 Smith Street, Tempe	15/09/2023	Attended	0.1	0.4	Yes	0.14	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
2 Hart Street, Tempe	25/09/2023	Attended	0.1	0.4	Yes	0.15	25	Yes	Works were monitored and found to be compliant with structural criteria and human comfort criteria.
3 Bellevue Street, Tempe	25/09/2023	Attended	0.1	0.4	Yes	0.18	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
241 O'Riordan Street, Mascot	04/09/2023	Attended	LAeq 15 min	70.5	89	Compliant – E19	Sydney Gateway milling and asphalting works were the dominant noise source, ambient noise was a water fountain at the entrance of Stamford Hotel and LAmax was caused by traffic from Robey Street. Sydney Gateway project works compliant.
113 Robey Street, Mascot	04/09/2023	Attended	LAeq 15 min	56.3	55	Compliant– E19	Traffic from Robey Street and O'Riordan Street was the dominant noise source. Sydney Gateway milling and asphalting works were compliant with predicted noise levels.
112 High Street, Mascot	05/09/2023	Attended	LAeq 15 min	61.2	54	Compliant– E19	Traffic from O'Riordan Street was the dominant noise source. Sydney Gateway milling and asphalting works were compliant with predicted noise levels.
241 O'Riordan Street, Mascot	05/09/2023	Attended	LAeq 15 min	72.6	89	Compliant– E19	Sydney Gateway milling and asphalting works were the dominant noise source, ambient noise was a water fountain at the entrance of Stamford Hotel and LAmax was caused by traffic from Robey Street. Sydney Gateway project works compliant.
113 Robey Street, Mascot	05/09/2023	Attended	LAeq 15 min	55.8	55	Compliant– E19	Traffic from Robey Street and O'Riordan Street was the dominant noise source. Sydney Gateway milling and asphalting works were compliant with predicted noise levels.
112 High Street, Mascot	05/09/2023	Attended	LAeq 15 min	60.8	54	Compliant– E19	Traffic from O'Riordan Street was the dominant noise source. Sydney Gateway milling and asphalting works were compliant with predicted noise levels.
241 O'Riordan Street, Mascot	05/09/2023	Attended	LAeq 15 min	64.1	89	Compliant– E19	Sydney Gateway milling and asphalting works were the dominant noise source, ambient noise was a water fountain at the entrance of Stamford Hotel and LAmax was caused by traffic from Robey Street. Sydney Gateway project works compliant.
112 High Street, Mascot	05/09/2023	Attended	LAeq 15 min	59.4	54	Compliant– E19	Traffic from O'Riordan Street was the dominant noise source. Sydney Gateway milling and asphalting works were compliant with predicted noise levels.
3 Bellevue Street, Tempe	11/09/2023	Attended	LAeq 15 min	67.2	62	Compliant	Traffic from Bellevue Street and Princes Highway was the dominant noise source. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
3 South Street, Tempe	11/09/2023	Attended	LAeq 15 min	59.6	67	Compliant	Traffic from South Street and dogs barking were the dominant noise source. Sydney Gateway works were compliant with predicted noise levels.

2 Fanning Street, Tempe	11/09/2023	Attended	LAeq 15 min	57.7	62	Compliant	C3 compound demolition works were the dominant noise source. However, Sydney Gateway works were compliant with predicted noise levels.
2 Bellevue Street, Tempe	15/09/2023	Attended	LAeq 15 min	63.8	56	Compliant	Traffic from Princes Highway was the dominant noise source. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
6 Smith Street, Tempe	15/09/2023	Attended	LAeq 15 min	67.9	67	Compliant	Aeroplanes and traffic from Smith Street and South Street were the dominant noise source. Sydney Gateway works were compliant with predicted noise levels.
2 Hart Street, Tempe	25/09/2023	Attended	LAeq 15 min	62.4	60	Compliant	Aeroplanes and traffic from South Street were the dominant noise sources. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
3 Bellevue Street, Tempe	25/09/2023	Attended	LAeq 15 min	62.5	54	Compliant	Traffic from Bellevue Street and Princes Highway was the dominant noise source. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
107 Baxter Road, Mascot	26/09/2023	Attended	LAeq 15 min	64.6	52	Compliant– E19	Rail and BRD works were the dominant noise source. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.
113 Robey Street, Mascot	26/09/2023	Attended	LAeq 15 min	53	52	Compliant– E19	Traffic from Robey Street and O'Riordan Street were the dominant noise source. Sydney Gateway works were compliant with predicted noise levels.
112 High Street, Mascot	26/09/2023	Attended	LAeq 15 min	57.1	52	Compliant– E19	Traffic from High Street and O'Riordan Street were the dominant noise sources. Sydney Gateway works were compliant with predicted noise levels.
241 O'Riordan Street, Mascot	26/09/2023	Attended	LAeq 15 min	58	68	Compliant– E19	Traffic from Robey Street and O'Riordan Street was the dominant noise source during monitoring period. Sydney Gateway works were inaudible throughout monitoring period. Sydney Gateway works compliant.

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)	Comments
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 sample
GW8	Landfill Gas Monitoring[1]	1%v/v	-	Destroyed unable to be sample
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 sample
GW13	Landfill Gas Monitoring[1]	1%v/v	-	Destroyed unable to be sample
GW14	Landfill Gas Monitoring[2]	N/A	6.2	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

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.