



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.

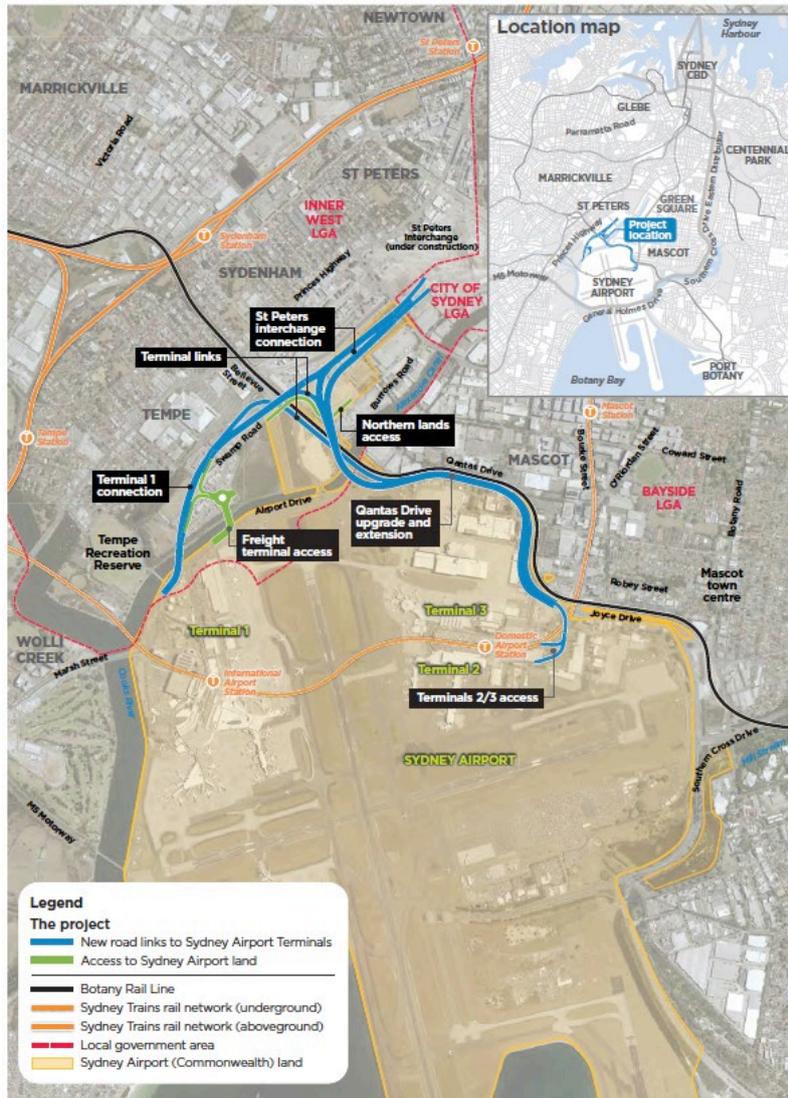


Figure 1: Project Overview

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 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

No noise and vibration monitoring was undertaken during this reporting period.

Discharge Water Quality Monitoring

Offsite discharge from the water treatment plant occurred during April. All results were compliant with discharge criteria.

Landfill Gas and Gas Accumulation Monitoring

Landfill gas and gas accumulation monitoring was undertaken during the April 2022 monitoring period. Results are summarised in Table 4 below.

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

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
-	-	-	-	-	-	-	-	-

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
-	-	-	-	-	-	-

Table 3: Discharge Monitoring Data

Discharged to Licence discharge point NL-01

Analyte	Units	Limit	Date	Comments
			11/4/22	
Ammonia	ug/l	1200	27	Compliant
Anthracene	ug/l	0.4	<0.1	Compliant
Arsenic (III)	ug/l	2.3	<0.1	Compliant
Arsenic (V)	ug/l	4.5	<0.1	Compliant
Barium (dissolved)	ug/l	2	<0.1	Compliant
Benzo(a)pyrene	ug/l	0.2	<0.05	Compliant
Boron	ug/l	5100	1000	Compliant
Cadmium (dissolved)	ug/l	5.5	<0.1	Compliant
Chromium (hexavalent)	ug/l	20	<10	Compliant
Chromium (trivalent)	ug/l	49	<10	Compliant
Cobalt (dissolved)	ug/l	14	<1	Compliant
Copper (dissolved)	ug/l	3	<1	Compliant
Ethyl benzene	ug/l	110	<2	Compliant
Fluoranthene	ug/l	1.4	<0.1	Compliant
Iron (dissolved)	ug/l	300	<50	Compliant
Lead (dissolved)	ug/l	6.6	<1	Compliant
Manganese (dissolved)	ug/l	80	<1	Compliant
Mercury (dissolved)	ug/l	0.4	<0.1	Compliant
m-Xylene	ug/l	100	<2	Compliant

Naphthalene	ug/l	70	<5	Compliant
Nickel (dissolved)	ug/l	70	2	Compliant
Nitrate + nitrite (oxidised nitrogen)	ug/l	15	10	Compliant
Nitrogen (total)	ug/l	300	160	Compliant
o-Xylene	ug/l	470	<2	Compliant
Perfluorooctane sulphonate (PFOS)	ug/l	0.13	<0.01	Compliant
Perfluorooctanoic acid (PFOA)	ug/l	220	<0.01	Compliant
pH	pH	7-8.5	8.31	Compliant
Phenanthrene	ug/l	2	<0.1	Compliant
Phosphorus (total)	ug/l	30	7	Compliant
p-Xylene	ug/l	250	<2	Compliant
TPH C10-C36 Fraction	ug/l	600	<50	Compliant
TPH C6-C9 Fraction	ug/l	150	<20	Compliant
Turbidity	NTU	10	0.3	Compliant
Zinc (dissolved)	ug/l	23	6	Compliant

Table 4: Landfill Gas Monitoring Results (8 April 2022)

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	-	Bore flooded unable to sample
GW5A	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
GW6A	Landfill Gas Monitoring ¹	1%v/v	-	Bore flooded unable to sample
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	23.5	Compliant
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	9.3	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	0.7	Compliant
GW22s	Landfill Gas Monitoring ¹	1%v/v	0	Compliant
JHSW-LFG01	Landfill Gas Monitoring ¹	1%v/v	-	Bore flooded unable to sample
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