EPL 21347 POLLUTION MONITORING REPORT, MAY 2020

PARRAMATTA LIGHT RAIL



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Rev.	Date	Prepared By	Reviewed By	Approved By	Remarks
A	26/05/2020	O Cooper	D. Corish	D. Corish	

1. Introduction

1.1. Background

Parramatta Light Rail is one of the NSW Government's major infrastructure projects being delivered to serve a growing Sydney.

Parramatta Light Rail Stage 1 ('Stage 1') will connect Westmead to Carlingford via Parramatta Central Business District (CBD) and Camellia. Stage 1 is expected to be operational in 2023.

Stage 1 will create new communities, connect great places and help both local residents and visitors move around and explore what the region has to offer. The route will link Parramatta's CBD and train station to a number of key locations, including the Westmead Precinct, the Parramatta North Growth Centre, the new Western Sydney Stadium, the Camellia Town Centre, the new Powerhouse Museum and Riverside Theatre arts and cultural precinct, the private and social housing redevelopment at Telopea, the Rosehill Gardens Racecourse and the three Western Sydney University campuses.

In summary, the key features of Stage 1 include:

- A new dual track light rail network of approximately twelve (12) kilometres in length, including approximately seven (7) kilometres within the existing road corridor and approximately five (5) kilometres within the existing Carlingford Line and Sandown Line, replacing current heavy rail services
- Sixteen (16) stops that are fully accessible and integrated into the urban environment including a terminus stop at each end of Westmead and Carlingford
- High frequency 'turn-up-and-go' services operating seven days a week from 5am to 1am.
 Weekday services will operate approximately every 7.5 minutes in the peak period between 7am and 7pm
- Modern and comfortable air-conditioned light rail vehicles, nominally 45 metres long and driver-operated, each carrying up to 300 passengers.
- Intermodal interchanges with existing public transport services at Westmead terminus, Parramatta CBD and the Carlingford terminus
- Creation of two light rail and pedestrian zones (no general vehicle access) within the Parramatta CBD along Church Street (generally between Market Street and Macquarie Street) and along Macquarie Street (generally between Horwood Place and Smith Street)
- A Stabling and Maintenance (SaM) Facility located in Camellia for light rail vehicles to be stabled, cleaned and maintained
- New bridge structures along the alignment including over James Ruse Drive and Clay Cliff Creek, Parramatta River (near the Cumberland Hospital), Kissing Point Road and Vineyard Creek, Rydalmere
- Alterations to the existing road network including line marking, additional traffic lanes and turning lanes, new traffic signals, and changes to traffic flows
- Relocation and protection of existing utilities
- Public domain and urban design works along the corridor and at Stop precincts



- Closure of the heavy rail line between Carlingford and Clyde
- Active transport corridors and additional urban design features along sections of the alignment and within Stop precincts
- Integration with the Opal Electronic Ticketing System (ETS)
- Real time information in light rail vehicles and at Stops via visual displays and audio.

An overview of Parramatta Light Rail Stage 1 route is shown in Figure 1-1.

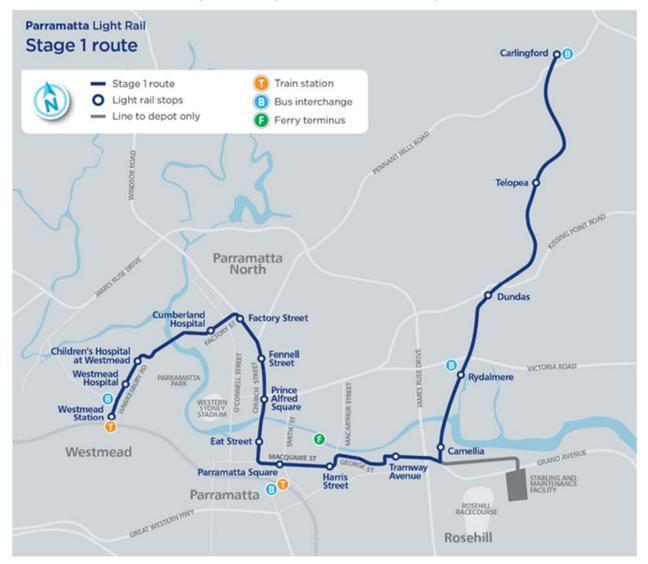


Figure 1-1 Parramatta Light Rail Stage 1 Route

The Parramatta Light Rail is subject to environmental impact assessment under the Environmental Planning and Assessment Act 1979 (EP&A Act). It is classified as Critical State Significant Infrastructure (CSSI). The EIS assessed impacts for Parramatta Light Rail Stage 1 (Westmead to Carlingford). This covered the light rail and associated works including road enabling work.

Stage 1 received Infrastructure Approval from the Minister for Planning under Section 5.19 of the EP&A Act on 29 May 2018 (Critical State Significant Infrastructure Application SSI-8285), subject to the conditions provided in the Instrument of Approval, specifically Schedule B – Ministerial Conditions of Approval.

The Infrastructure Approval was subsequently modified under Section 5.25 of the EP&A Act on 21 December 2018 and 25 January 2019.

The planning approval, modifications and related environmental assessment documents are located at: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8285.

1.2.3 Stage 1 Delivery Strategy

Delivery of Stage 1 is achieved through the following five packages of work:

- Enabling Works (Package 1) Local road network improvements including O'Connell Street and George Street (off-alignment)
- Westmead Precinct Works (Package 2) Hawkesbury Road widening and demolition at Cumberland Hospital (east and west Campus)
- Early Works (Package 3) Remediation of the Stabling and Maintenance (SaM) Facility
- Infrastructure Works (Package 4) (the subject of this Report) Design and construction
 of civil works, public domain and light rail infrastructure up to road level/top of rail and to the
 top of the concrete slab at stops, including provision of utility services (excluding highvoltage power supply and cabling for rail systems), and decommissioning of the T6
 Carlingford Line)
- Supply, Operate and Maintain Works (Package 5) Design and construction of the light rail systems, high-voltage power supply and stops above slab level, the supply of light rail vehicles, and the design and construction of the SaM Facility, including all light rail operations, customer service and asset management.

Each package of work is to be delivered under separate contracts on behalf of the proponent Transport for NSW (TfNSW). While the packages will commence at different times under separate construction approvals, there will be periods during which the package works will overlap. The interactions between the packages are shown in **Figure 1-2**.

Parramatta Connect (the CPB Contractors and Downer EDI Works Joint Venture) has been engaged to deliver the Infrastructure Works. For construction, the Infrastructure Works are divided into portions and sub-portions, each of which is described in Table 1-1 together with significant environmental issues. The portions, light rail stops and precincts are depicted in **Figure 1-3**.

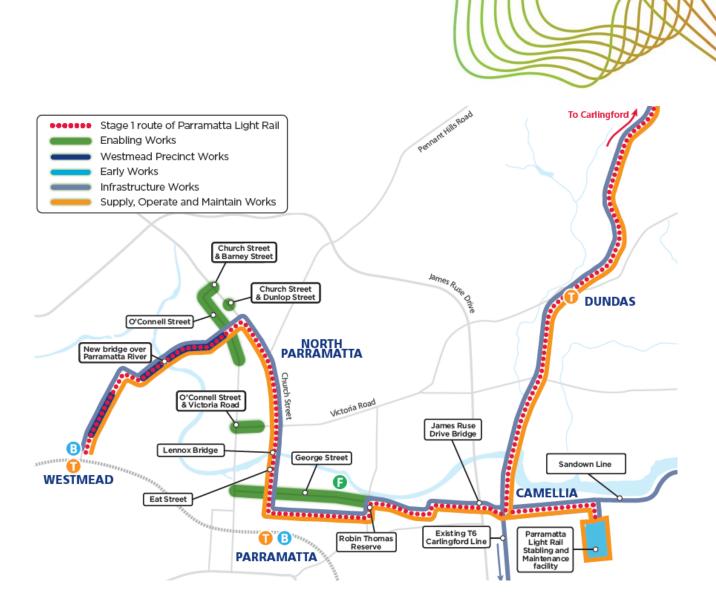


Figure 1-2 Parramatta Light Rail Stage 1 Delivery Strategy

Portion 1A			Portion 1B			Portion 1C Portion 1D			Portion 2						
	Westmead Precinct				Parramatta recint Parramatta				tta CBD Precinct Camel			Carlingford Precinct			
Westmead Station	Westmead Hospital Children's Hospital	מו ארכאוווכמט	Cumberland Hospital	Factory Street	Fennell Street	Prince Alfred Square	Eat Street	Parramatta Square	Harris Street	Tramway Avenue	Camellia	Rydalmere	Dundas	Telopea	Carlingford

Figure 1-3 Infrastructure Works Portions, Precincts and Stations



1.2. Scope of this report

CPB Contactors Pty Limited have been issued an Environmental Protection Licence (EPL No. 21347) from the NSW Environment Protection Authority (EPA) for the Parramatta Light Rail Package 4 - Infrastructure Works on behalf of Parramatta Connect.

The EPL applies to the works approved under the Infrastructure Approval SSI-8285 associated with the delivery of Parramatta Light Rail Stage 1 Infrastructure Works (Package 4) under the operational control of Parramatta Connect. The EPL does not apply to other Parramatta Light Rail Stage 1 works packages.

This EPL Pollution Monitoring Report provides the results of all pollution monitoring required to be measured or monitored by the licensee of EPL 21347 as required by Section 66 of the *Protection of the Environment Operations Act 1997 (POEO Act)* and with reference to EPA Publication *Requirements for publishing pollution monitoring data* (Environment Protection Authority, 2013).

Table 1-1 provides a summary of the EPL 21347 details.

Licence Details	
Number:	21347
Copy of License	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=17 7484&SYSUID=1&LICID=21347
Anniversary Date	03-January
Licensee	CPB Contractors Pty Limited
Premises	Parramatta Light Rail Stage 1 – Westmead to Carlingford, Package 4 Parramatta NSW 2123
Scheduled Activity	Railway activities - railway infrastructure construction

Table 1-1 Licence details

2. Reporting Requirements

Under the *POEO Act*, holders of environment protection licences (licensees) must publish or make pollution monitoring data available to members of the public.

The POEO Act Section 66 requires

"66 Conditions requiring monitoring, certification or provision of information, and related offences

(1) Monitoring The conditions of a licence may require—

- (a) monitoring by the holder of the licence of the activity or work authorised, required or controlled by the licence, including with respect to—
 - (i) the operation or maintenance of premises or plant, and
 - (ii) discharges from premises, and
 - (iii) relevant ambient conditions prevailing on or outside premises,
- and
- (iv) anything required by the conditions of the licence, and
- (b) the provision and maintenance of appropriate measuring and recording devices for the purposes of that monitoring, and
- (c) the analysis, reporting and retention of monitoring data.

(2) **False or misleading information** A holder of a licence who supplies information, or on whose behalf information is supplied, to the appropriate regulatory authority under the conditions of the licence is guilty of an offence if the information is false or misleading in a material respect."

The primary objective of the pollution monitoring reporting requirements is that members of the public have access to the results of all pollution monitoring (which a licence specifies must be carried out) in a way that is meaningful to them. Data for the Parramatta Light Rail Infrastructure Works is presented on a monthly sampling period.

The monitoring data that must be published and/or made available on request is any data that is obtained as a result of a monitoring condition on a licence that relates to air, water (surface or groundwater), noise and/or land pollution. The data to be published or provided is limited to data that relates to pollutants generated, discharged or emitted from the licensed premises.

The data is provided in tabular format that is easy for the general public to understand. Tables definitively display raw data values, while graphs and charts are useful for overviews and visualisation of long-term trends. Raw data will be provided upon request.

An upfront note will be included on the licensee's website or in this report to explain why any data may appear to be missing because there is no discharge or the level of pollutant being below the detection level of the measurement instrument.

It is possible from time to time that incorrect data may be published in good faith. As soon as practicable after the licensee becomes aware that the published pollution monitoring data is incorrect or misleading, licensees must then publish a correction log to correct this data that is incorrect or misleading (refer to **Section 4**).

Table 2-1 provides a summary of the pollution monitoring requirements of EPL 21347.

EPL Condition	Requirement	Report Reference
M1.1	Monitor and record hourly temperature, humidity, wind velocity and rainfall	Section 3.1 Appendix A-1
L4.8	Monitoring to validate the noise predictions for works undertaken outside of the standard construction hours as per the construction noise impact assessment	Section 3.2 Appendix A-2
M4.2	Noise monitoring of noise and vibration complaints	Section 3.2 Appendix A-2
M3.3	Noise and vibration monitoring as directed by an authorised officer of the EPA	Section 3.2 Appendix A-2
P1	Discharge of pollutants to water from nominated discharge points	Section 3.3 Appendix A-3
L2.4	Discharge from sediment basins solely as a result of rainfall measured as a result of rainfall exceeding the rainfall depth value	Section 3.3 Appendix A-3

 Table 2-1
 EPL 21347 Pollution Monitoring Requirements

3. Monitoring

Section 3 present a summary of the monitoring programs completed in the reporting period from the 26 April to 25 May 2020.

Detailed monitoring results for each program are presented in the Appendices.

3.1. Meteorological Data

The total rainfall during the reporting period was 65mm with 4 days with >1mm of rain. There was one day recorded where the rain exceeded the 80^{th} percentile (25.8mm) and the 85^{th} percentile (33.1mm).

During the reporting period, there were 19 days where the maximum wind gust recorded was greater than 25km/hr, and 2 days where the maximum wind gust recorded was greater than 50km/hr. There was a total of 12 days where wind speeds greater than 25km/hr were forecast and on each of those days, notifications were issued to the construction team to alert them of the strong winds forecast.

A summary of the weather observations and weather events during the reporting period of relevance to the Soil and Water Management Sub-plan and Air Quality Management Sub-Plan Trigger Action Response Plans (TARPs) are summarised in **Table 3-2**. A comparison between long term monthly means and recorded values can be found in **Figure 3-1** for rainfall and **Figure 3-2** for rain days >1mm.

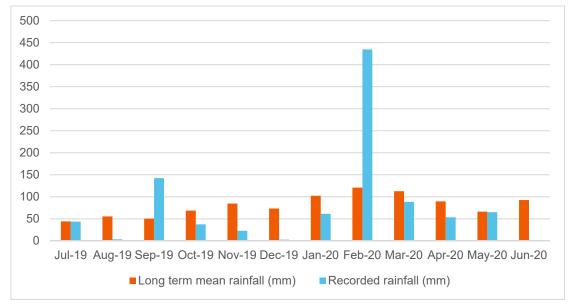
Detailed weather observation records for May 2020 are presented in Appendix A-1.

Weather event	Forecast	Observation				
Minimum temperature	4°C	3°C				
Maximum temperature	27°C	27.3°C				
Total rainfall	69mm	65mm				
Number of days with rain (>1mm)	5 days	4 days				
>80 th percentile (25.8mm) rain events	0	1 event				
>85 th percentile (33.1mm) rain events	0	1 event				
Flood warning / events	-	-				
>25km/hr wind ²	11 days	19 days				
>50km/hr wind	1 days	3 days				

Table 3-1 Weather Summary and Trigger Weather Events for May¹ 2020

1. Weather summary based on data from the 26 April to 25 May (29 days).

2. Wind data from Sydney Olympic Park AWS (Archery Centre) {station 066212}. Weather data from Parramatta North (Masons Drive) {station 066124}.



Note: Red text in Observation column indicates observation greater than forecast.

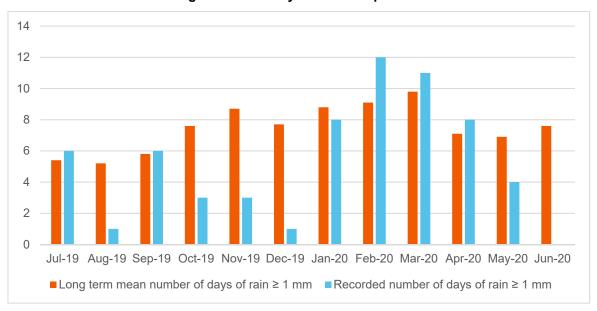


Figure 3-1 Monthly rainfall comparison

Figure 3-2 Monthly rain days comparison



3.2. Noise and Vibration

Noise monitoring is a requirement of the follow conditions of EPL 21347:

- L4.8 Monitoring to validate the noise predictions for works undertaken outside of the standard construction hours as per the construction noise impact assessment
- M4.2 Noise monitoring of noise and vibration complaints
- M3.3 Noise and vibration monitoring as directed by an authorised officer of the EPA.

Table 3-3 provides a summary of noise monitoring events completed during the reporting period. Detailed noise monitoring results and comments are presented in **Appendix A-2**.

Table 3-2 Summary of noise monitoring May 2020

Date	Monitoring Location	Description
13/05/2020	157 Hawkesbury Road	Standard work hours: Excavation using a pulveriser
18/05/2020	149 Hawkesbury Road	Standard work hours: Tree removal
20/05/2020	86 Kissing Point Road	Standard work hours: Excavation/earthworks
20/05/2020	Centenary Square	OOHW Period 1: Tree removal
05/05/2020	Centenary Square	OOHW Period 1: Tree clearing
20/05/2020	Centenary Square	OOHW Period 1: Tree clearing/removal
14/05/2020	Kissing Point Road	OOHW Period 1: Piling
16/05/2020	Kissing Point Road	OOHW Period 2: Piling
20/05/2020	2 Arthur Street	OOHW Period 2: Rail cutting
20/05/2020	88 Parramatta Road	OOHW Period 2: Rail cutting
12/05/2020	Centenary Square	Standard work hours: Plant Spot Check

3.3. Discharge to water

The EPL discharge criteria apply to the sediment basins and settling containers identified and located in the document titled "Parramatta Light Rail Package 4 Discharge Point Register" and maintained on electronic file EF19/29672. The active basins and discharge points during the reporting period are summarised in **Table A-3-1**.

Table A-3-2 provides a summary of the discharges by Parramatta Connect at the current active monitoring/discharge point or utilisation area that complied with condition L2.1. There were 4 discharges from these points during the reporting period.

Table A-3-3 provides a summary discharge events that occurred solely as a result of rainfall measured at the premises exceeding the design rainfall depth value for the corresponding



discharge point. There were no discharge events as a result of rainfall exceeding the design rainfall depth value during the reporting period.



4. Correction log

It is possible from time to time that incorrect data be get published in good faith.

As soon as practicable after the licensee becomes aware that the published pollution monitoring data is incorrect or misleading, licensees must then publish a correction log to correct this data that is incorrect or misleading.

There are no matters included in the correction log for this reporting period.

Appendices

A-1 Weather Observations

Table A-1-1 Weather observations: Parramatta North (Masons Drive) {station 066124}.

	Ň		, (
	Temps Ra Date Min Max		Rain			9:00 AM		
Date			Rain	Temp	RH	Cld	Dir	Spd
	°C	°C	mm	°C	%	8th	km	ı/h
26/04/2020	11.5	27.3	0	22	54	5	NNW	4
27/04/2020	11.6	21.2	0	18	75	6	NW	4
28/04/2020	14.3	22.3	0.4	19.2	85	8	NNE	2
29/04/2020	14.8	25.2	0.2	21.5	70	7	N	4
30/04/2020	14.8	18.5	0.2	18.4	91	8	ENE	2
1/05/2020	9.8	16.3	15.6	14	52	3	NW	19
2/05/2020	11.2	18	0	14.5	52	3	W	33
3/05/2020	6.7	20	0	15	44	0	SW	22
4/05/2020	6	19.6	0	18.3	33	0	WSW	7
5/05/2020	10	20.7	0.6	16	74	2	WSW	7
6/05/2020	7	22.7	0	13	96	2	NE	4
7/05/2020	7.8	23.7	0	14	84	6	NW	2
8/05/2020	12.8	27	0	21	57	0	W	15
9/05/2020	15.2	25.3	0	21.2	56	5	NNE	9
10/05/2020	7	17.7	0	13.5	51	0	WSW	22
11/05/2020	3	19.2	0	11.3	66	0	NW	7
12/05/2020	4.8	20	0	11.2	73	0	E	2
13/05/2020	7.2	18.8	0	12	45	6	W	4
14/05/2020	7.3	18.4	0	13	79	5	NNW	2
15/05/2020	6.2	17	0.2	14.2	67	2	SW	2
16/05/2020	9.1	18.8	3	14	97	6	NW	6
17/05/2020	7.2	20.8	0	11.7	95	5	WNW	4
18/05/2020	8	18.6	0.6	14.6	97	4	W	2
19/05/2020	10.2	21.8	1	13.5	99	6	NW	2
20/05/2020	10	23.7	0	16.6	74	6	NNW	4
21/05/2020	13.2	18.8	0	15.7	88	8	NW	2
22/05/2020	7.8	16.8	<u>39.4</u> 12.7		65	6	S	19
23/05/2020	10.2	18.2	3	16.5	62	4	SW	19
24/05/2020	12.3	17.9	0.8	15	68	6	SW	11
25/05/2020	12	16.4	0	14.2	76	8	SW	15

	Ма	x Wind G	ust	9:00	AM	3:00 PM		
Date	Dir	Spd	Time	Dir	Spd	Dir	Spd	
	km		local	km			n/h	
26/04/2020	WNW	35	15:42	NW	6	WNW	17	
27/04/2020	ESE	17	12:32	NW	7		Calm	
28/04/2020	NNE	22	15:13		Calm	NNE	13	
29/04/2020	Ν	28	10:35	Ν	6	NNE	9	
30/04/2020	WSW	31	11:34	WSW	2	WSW	4	
1/05/2020	WNW	57	11:17	NW	20	NW	30	
2/05/2020	WNW	59	10:17	NW	30	NW	30	
3/05/2020	SE	30	12:57	W	13	SE	9	
4/05/2020	SE	28	14:13	W	9	SSE	17	
5/05/2020	S	28	12:06	W	6	SSE	11	
6/05/2020	NNW	24	11:55	NW	7	NNW	7	
7/05/2020	NW	41	15:39	NW	7	NNW	11	
8/05/2020	NNW	35	10:35	NW	17	Ν	9	
9/05/2020	Ν	39	13:49	NW	13	NNW	17	
10/05/2020	WNW	41	9:16	WNW	20	W	11	
11/05/2020	ESE	22	15:31	WNW	9	SSE	7	
12/05/2020	Ν	20	13:05	WNW	11	Ν	13	
13/05/2020	NW	17	10:11	NW	6	WSW	4	
14/05/2020	S	39	11:44	WNW	7	SSW	13	
15/05/2020	SSE	30	12:41	W	7	S	9	
16/05/2020	E	19	12:54	WNW	6		Calm	
17/05/2020	E	19	14:27	WNW	11	E	9	
18/05/2020	E	20	13:00	WNW	6		Calm	
19/05/2020	NNW	19	13:31	WNW	6	Ν	9	
20/05/2020	NW	41	12:35		Calm	NNW	20	
21/05/2020	WSW	35	19:10		Calm	NW	2	
22/05/2020	NW	39	2:41	WNW	11	W	11	
23/05/2020	WSW	31	12:23	WNW	13	W	15	
24/05/2020	SSW	46	14:23	WSW	9	SSW	20	
25/05/2020	SSW	52	16:08	WSW	9	SSW	20	

Table A-1-2 Wind observations: Sydney Olympic Park AWS (Archery Centre) {station 066212}.

Notes:

Blue text indicates a rain event greater than 1mm of rain.

Orange text indicates a rain event greater than the 80th percentile of 25.8mm, and a wind speed of greater than 25km/hr Red text indicates a rain event greater than the 85th percentile of 33.1mm, and a wind speed greater than 50km/hr.



A-2 Noise Monitoring Results

Date	Time	Out of Hours Works Period	Construction Activity	Monitoring Location	Attended or Continuous	Parameter′	Analysation method	Predicted (dBA)	Specified Noise Limit	Recorded Value	Exceedance of Specified Noise Limit (dBA)	Construction noise exceedance	Comments
13/05/202 0	11:4 2	Standard Working Hours	Excavation using pulveriser	157 Hawkesbury Road	Attended	Leq15min (dBA)	Monitor	82	56	50.1	-30.9	No	Members of public were speaking
18/05/202 0	10:4 5	Standard Working Hours	Tree removal	1A Noller Parade	Attended	Leq15min (dBA)	Monitor	82	55	64.3	-21.7	No	No comments
20/05/202 0	19:4 5	OOHW Period 1	Tree removal	45 Macquarie Street	Attended	Leq15min (dBA)	Monitor	82	58	65.6	-3.4	No	No comments
20/05/202 0	20:0 9	OOHW Period 1	Tree clearing	20 O'Connell St and 16 Macquarie St	Attended	Leq15min (dBA)	Monitor	82	70	67.0	3	Nil	The dominant noise source was
05/05/202 0	09:0 3	Standard Working Hours	Excavation/ earthworks	86 Kissing Point Road, Dundas	Attended	Leq15min (dBA)	Monitor	82	56	65.6	-8.4	No	Excavation movement was the d
20/05/202 0	20:3 0	OOHW Period 1	Tree clearing/rem oval	Centenary Square	Attended	Leq15min (dBA)	Monitor	82	70	80.7	-12.3	No	No comments
14/05/202 0	22:0 0	OOHW Period 1	Piling	78 Kissing Point Road	Attended	Leq15min (dBA)	Monitor	82	47	64.1	-9.9	No	No comments
16/05/202 0	01:4 0	OOHW Period 2	Piling	78 Kissing Point Road	Attended	Leq15min (dBA)	Monitor	82	39	65.1	-8.9	No	No comments
20/05/202 0	11:5 6	OOHW Period 2	Rail cutting	2 Arthur Street	Attended	Leq15min (dBA)	Monitor	82	47	50.3	-19.7	No	LAmax attributed to motorcycle r works
20/05/202 0	11:3 7	OOHW Period 2	Rail cutting	88 Parramatta Road	Attended	Leq15min (dBA)	Monitor	82	48	71.5	1.5	Nil	The dominant noise source was
12/05/202 0	14:0 2	Standard Working Hours	Plant sport check - hydraulic hammering	Centenary Square	Attended	Leq15min (dBA)	Monitor	82	-	91.6	-1.4	No	No comments

Notes:

Standard hours:

a) All areas excluding Eat Street and Camellia – Monday to Friday 7:00 am to 7:00 pm. Saturday 8:00 am to 6:00 pm

b) Eat Street (Church Street between Palmer Street and George Street) – Monday to Friday 7:00 am to 6:00 pm. Saturday 8:00 am to 12:00 pm)

c) Camellia, Rosehill and Rydalmere (east of James Ruse Drive to Victoria Road) – 24 hours a day and seven days a week provided that sensitive receivers are not affected by noise levels of greater than 5 dBA above the rating background level at any residence

OOHW Period 1 is defined as:

- a) 6:00pm to 10:00pm (evenings) Monday to Saturday
- a) 7:00am to 8:00am and 1:00pm to 10:00pm (day & evening) Saturday and
- b) 8:00am to 6:00pm Sunday and public holidays (days).

OOHW Period 2 is defined as:

- b) 10:00pm to 7:00am (nights) Monday to Saturday and
- c) 6:00pm to 8:00am (nights) Sundays and public holidays.



king and phones were ringing

as vehicle traffic

dominant sound

noise and not related to construction

as vehicle traffic

Additional Mitigation Measures

- PN = Project Notification
- V = Verification Monitoring
- RP = Respite Period
- AA = Alternate Accommodation
- SN = Specific Notification / individual briefing or phone call
- DR = Duration Reduction
- RO = Project Specific Respite Offer





A-3 Discharge to water

ID	Construction Status	Easting	Northing	AMG Zone	Reference System	Description of location of discharge point	Catchment name Name of neares waters		Total catchment area of basin (hectares)	Basin size (operational) m3	Blue Book Criteria	c Location description	Date added	Revision Adde
2.01	Active	315250	6256918	56	MGA	Existing stormwater pit on Church St, 40m north of the Phillip St intersection	Parramatta River Parramatta Rive	er No	N/A	N/A	N/A	N/A	24/02/2020	Rev 1
2.02	Active	315231	6256879	56	MGA	Existing stormwater pit on the northwest corner of the intersection of Phillip St and Church St	Parramatta River Parramatta Rive	er No	N/A	N/A	N/A	N/A	24/02/2020	Rev 1
2.03	Active	315229 62	256871	56	MGA	Existing stormwater pit on the southwest corner of the intersection of Phillip St & Church St	Parramatta River Parramatta Rive	r No	N/A	N/A	N/A	N/A	16/03/2020	Rev 2
3.18	Active	317220	6256123	56	MGA	Discharges into existing stormwater line at Sandown Lane flowing towards Parramatta River.	Parramatta River Parramatta Rive	er Yes	N/A	N/A	N/A	Connection of new drainage to existing stormwater	24/02/2020	Rev 2
3.19	Active	317845	6256065	56	MGA	Discharges into existing stormwater line at Sandown Lane flowing towards Parramatta River.	Parramatta River Parramatta Rive	er Yes	N/A	N/A		Connection of new drainage to existing stormwater	24/02/2020	Rev 2
.3.3	Active	317527	6257074	56	MGA	On eastern side of rail corridor adjacent to WSU. Discharges into Vineyard Creek.	Parramatta River Vineyard Creel	Yes	N/A	N/A	N/A	Outlead headwall for new drainage	24/02/2020	Rev 2
\3.4	Active	317518	6257093	56	MGA	On western side of rail corridor adjacent to WSU. Discharges into Vineyard Creek.	Parramatta River Vineyard Creel	Yes	N/A	N/A	N/A	Outlead headwall for new drainage	24/02/2020	Rev 2
3.20	Active	316821	625304	56	MGA	Discharge into Clay Cliff Creek at Camellia / Parramatta, which flows towards Parramatta River	Parramatta River Clay Cliff Creel	(Yes	N/A	N/A	N/A	Discharge into existing creek	8/04/2020	Rev 3

Table A-3-2 Discharge water quality

Discharge monitoring Point ID	P1.2 Identification Number	Type of Monitoring ⁻ Point F	Type of Discharge Point	Date	Discharge Permit #	Oil and Grease (Not visible)	рН (6.5 - 8.5)	Total Suspended Solids (31 mg/L)
A2.01	1	Basins and settling containers	Discharge water quality	nil	nil	-	-	-
A2.02	1	Basins and settling containers	Discharge water quality	nil	nil	-	-	-
A2.03	1	Basins and settling containers	Discharge water quality	nil	nil	-	-	-
A2.06	1	Basins and settling containers	Stormwater inlet	6/05/2020	DW A2_002	Not visible	7.00	0
A2.04 & A2.05	1	Basins and settling containers	Stormwater inlet	16/05/2020	DW A2_012	Not visible	7.00	0
A2.09 & A2.05	1	Basins and settling containers	Stormwater inlet	16/05/2020	DW-A2_013	Not visible	7.00	0
A3.18	1	Basins and settling containers	Discharge water quality	nil	nil	-	-	-
A3.19	1	Basins and settling containers	Discharge water quality	nil	nil	-	-	-
A3.3	1	Basins and settling containers	Discharge water quality	nil	nil	-	-	-
A3.4	1	Basins and settling containers	Discharge water quality	nil	nil	-	-	-
A3.2	1	Basins and settling containers	Creek	20/05/2020	DW001	Not visible	7.62	20

Table A-3-3 Discharge occurs solely as a result of rainfall measured at the premises exceeding the design rainfall depth value

	Discharge monitoring Point ID	P1.2 Identification Number	Type of Monitoring Point	Type of Discharge Point	Date	Rainfall Event	Comments
_	A2.01	1	Basins and settling containers	Discharge water quality	nil	-	-
	A2.02	1	Basins and settling containers	Discharge water quality	nil	-	-
	A2.03	1	Basins and settling containers	Discharge water quality	nil	-	-
	A3.18	1	Basins and settling containers	Discharge water quality	nil	-	-
_	A3.19	1	Basins and settling containers	Discharge water quality	nil	-	-
	A3.3	1	Basins and settling containers	Discharge water quality	nil	-	-
_	A3.4	1	Basins and settling containers	Discharge water quality	nil	-	-
	A3.2	1	Basins and settling containers	Discharge water quality	nil	-	_

s	Comments
	-
	-
	-
	Discharge from Sydney Water main
	Discharge from Sydney Water main
	Discharge from Sydney Water main
	-
	-
	-
	-
	Discharge from dewatering from deep excavation at Tramway Avenue

