

Environment Protection Licence Monitoring Data

Project name:	WestConnex – New M5	
Licensee	CPB Contractors Pty Limited	
Monitoring period	November 2019	
Website:	https://www.westconnex.com.au/NewM5Environment	
Environment Protection licence number/s:	20772	4627
Premise addresses	WestConnex New M5, between Beverly Hills and St Peters, Beverly Hills NSW 2209	New M5 St Peters Interchange, 10-16 Albert Street, St Peters NSW 2044

Monitoring Type: Water Discharge Monitoring

Discharge/Monitoring Point	Date sampled	Total suspended solids		pH		Oil & Grease		Monitoring frequency	Comment
		Licence limit	Result	Licence limit	Result	Licence limit	Result		
Water Treatment Plant ARN-2	1/11/2019	50	*7.7	6.5-8.5	7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	4/11/2019	50	*6.6	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	5/11/2019	50	*6.3	6.5-8.5	7.1	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	6/11/2019	50	*8.5	6.5-8.5	6.7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	7/11/2019	50	*8	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	8/11/2019	50	*16.2	6.5-8.5	6.93	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	9/11/2019	50	*14	6.5-8.5	6.77	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	10/11/2019	50	*22	6.5-8.5	6.6	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	11/11/2019	50	*15	6.5-8.5	7.03	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	12/11/2019	50	*9.9	6.5-8.5	6.95	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	13/11/2019	50	*11.8	6.5-8.5	6.9	None visible	None	Each discharge	Compliant

Environment Protection Licence Monitoring Data

Discharge/Monitoring Point	Date sampled	Total suspended solids		pH		Oil & Grease		Monitoring frequency	Comment
		Licence limit	Result	Licence limit	Result	Licence limit	Result		
Water Treatment Plant ARN-2	14/11/2019	50	*17	6.5-8.5	7.21	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	15/11/2019	50	*9	6.5-8.5	6.6	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	16/11/2019	50	*7.76	6.5-8.5	6.75	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	18/11/2019	50	*4.7	6.5-8.5	6.71	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	22/11/2019	50	*8.6	6.5-8.5	6.7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	23/11/2019	50	*10.1	6.5-8.5	6.7	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	24/11/2019	50	*13	6.5-8.5	6.6	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	25/11/2019	50	*17	6.5-8.5	6.6	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	26/11/2019	50	*14	6.5-8.5	6.8	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	27/11/2019	50	*8.7	6.5-8.5	7.5	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	28/11/2019	50	*12.2	6.5-8.5	7.2	None visible	None	Each discharge	Compliant

* A correlation between TSS and Turbidity has been established. Including a safety factor, the turbidity limit is 50NTU.

Environment Protection Licence Monitoring Data

Monitoring Type: Dust Monitoring (EPL 4627)

Monitoring Point / EPA Identification point (EPL 4627)	Start Date	Finish Date	Dust Deposition g/m ² /month	Comment
DG01	14/10/2019	14/11/2019	9.2	-
DG02	14/10/2019	14/11/2019	17.2	-
DG03	14/10/2019	14/11/2019	20.3	-
DG04	14/10/2019	14/11/2019	4.4	-

Monitoring Type: Ground Water Monitoring (EPL 4627)

Date Sampled: 22/11/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4)	Frequency (MP 2-6)
Standing Water Level	mBTOC	Destroyed	13.65	2.26	Dry	24.58	Quarterly
Temperature (field)	deg c	Destroyed	22.7	21.7	Dry	23.6	Quarterly
pH (field)	pH units	Destroyed	6.33	6.8	Dry	6.46	Quarterly
Electrical Conductivity (field)	uS/cm	Destroyed	770	1190	Dry	7700	Quarterly
Redox (field)	mV	Destroyed	34.2	74	Dry	1.8	Quarterly
Dissolved Oxygen (field)	mg/L	Destroyed	0.62	0.42	Dry	0.92	Quarterly
Total Organic Carbon	mg/L	Destroyed	4.1	2.2	Dry	21	Quarterly
Total Dissolved Solids	mg/L	Destroyed	6500	840	Dry	4200	Quarterly

Environment Protection Licence Monitoring Data

Date Sampled: 22/11/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4)	Frequency (MP 2-6)
Chloride	mg/L	Destroyed	3100	58	Dry	2200	Quarterly
Sulphate	mg/L	Destroyed	210	170	Dry	310	Quarterly
Sodium (Na)	mg/L	Destroyed	1300	69	Dry	1400	Quarterly
Potassium (I) Ion	mg/L	Destroyed	30	25	Dry	22	Quarterly
Calcium (II) Ion	mg/L	Destroyed	340	190	Dry	170	Quarterly
Magnesium (II) Ion	mg/L	Destroyed	160	20	Dry	89	Quarterly
Ammonia as N	mg/L	Destroyed	1300	69	Dry	1400	Quarterly
Total Alkalinity (Carbonate and Bicarbonate)	mg/L	Destroyed	57	470	Dry	690	Quarterly
Total Phenolics	mg/L	Destroyed	<0.01	0.02	Dry	0.01	Quarterly
Nitrate as N	mg/L	Destroyed	<0.050	0.79	Dry	<0.050	Quarterly
Nitrite as N	mg/L	Destroyed	<0.005	<0.005	Dry	<0.005	Quarterly
Fluoride	mg/L	Destroyed	<0.10	0.86	Dry	0.2	Quarterly
Aluminium	mg/L	Destroyed	10	<5	Dry	11	Quarterly
Arsenic	mg/L	Destroyed	1	2	Dry	4	Quarterly
Barium	mg/L	Destroyed	420	61	Dry	520	Quarterly

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Date Sampled: 22/11/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4)	Frequency (MP 2-6)
Hexavalent Chromium	mg/L	Destroyed	<0.004	<0.004	Dry	<0.004	Quarterly
Cadmium	mg/L	Destroyed	<0.1	4.7	Dry	<0.1	Quarterly
Chromium	mg/L	Destroyed	8	24	Dry	13	Quarterly
Cobalt	mg/L	Destroyed	<1	5	Dry	5	Quarterly
Copper	mg/L	Destroyed	<1	70	Dry	<1	Quarterly
Lead	mg/L	Destroyed	<1	1	Dry	<1	Quarterly
Manganese	mg/L	Destroyed	140	67	Dry	99	Quarterly
Mercury	mg/L	Destroyed	<0.0001	<0.0001	Dry	<0.0001	Quarterly
Zinc	mg/L	Destroyed	13	3300	Dry	31	Quarterly
Naphthalene	ug/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Acenaphthylene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Acenaphthene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Fluorene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Phenanthrene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Anthracene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Fluoranthene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly

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Date Sampled: 22/11/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4)	Frequency (MP 2-6)
Pyrene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Benzo(a)anthracene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Chrysene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Benzo(b,j+k)fluoranthene	µg/L	Destroyed	<0.2	<0.2	Dry	<0.2	Quarterly
Benzo(a)pyrene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Indeno(1,2,3-c,d)pyrene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Dibenzo(a,h)anthracene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Benzo(g,h,i)perylene	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
HCB	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
alpha-BHC	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
gamma-BHC	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
beta-BHC	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Heptachlor	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
delta-BHC	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Aldrin	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Heptachlor Epoxide	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly

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Date Sampled: 22/11/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4)	Frequency (MP 2-6)
gamma-Chlordane	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
alpha-Chlordane	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Endosulfan I	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
pp-DDE	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Dieldrin	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Endrin	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
pp-DDD	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Endosulfan II	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
pp-DDT	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Endrin Aldehyde	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Endosulfan Sulphate	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Methoxychlor	µg/L	Destroyed	<0.1	<0.1	Dry	<0.1	Quarterly
Bromophos ethyl	µg/L	Destroyed	<0.2	<0.2	Dry	<0.2	Quarterly
Chlorpyrifos	µg/L	Destroyed	<0.2	<0.2	Dry	<0.2	Quarterly
Diazinon	µg/L	Destroyed	<0.5	<0.5	Dry	<0.5	Quarterly

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Date Sampled: 22/11/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4)	Frequency (MP 2-6)
Dimethoate	µg/L	Destroyed	<0.5	<0.5	Dry	<0.5	Quarterly
Ethion	µg/L	Destroyed	<0.2	<0.2	Dry	<0.2	Quarterly
Fenitrothion	µg/L	Destroyed	<0.2	<0.2	Dry	<0.2	Quarterly
TRH C6 - C9	µg/L	Destroyed	<40	<40	Dry	<40	Quarterly
TRH C6 - C10	µg/L	Destroyed	<50	<50	Dry	<50	Quarterly
Benzene	µg/L	Destroyed	<0.5	<0.5	Dry	<0.5	Quarterly
Toluene	µg/L	Destroyed	<0.5	<0.5	Dry	1.6	Quarterly
Ethylbenzene	µg/L	Destroyed	<0.5	<0.5	Dry	<0.5	Quarterly
m+p-xylene	µg/L	Destroyed	<1	<1	Dry	<1	Quarterly
o-xylene	µg/L	Destroyed	<0.5	<0.5	Dry	<0.5	Quarterly
TRH C10 - C14	µg/L	Destroyed	<50	<50	Dry	<50	Quarterly
TRH C15 - C28	µg/L	Destroyed	1000	<200	Dry	<200	Quarterly
TRH C29 - C36	µg/L	Destroyed	<200	<200	Dry	<200	Quarterly
TRH >C10 - C16	µg/L	Destroyed	<60	<60	Dry	<60	Quarterly
TRH >C10 - C16 less Naphthalene (F2)	µg/L	Destroyed	<60	<60	Dry	<60	Quarterly

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Date Sampled: 22/11/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4)	Frequency (MP 2-6)
TRH >C16 - C34	µg/L	Destroyed	1000	<500	Dry	<500	Quarterly
TRH >C34 - C40	µg/L	Destroyed	<500	<500	Dry	<500	Quarterly

Monitoring Type: Leachate Analytical Results (EPL 4627)

Date Sampled: 22/11/2019		Monitoring Point		
Pollutant	Frequency	Units	7 (LPI)	
Temperature (field)	Quarterly	deg c	21.7	
pH (field)	Quarterly	pH units	6.93	
Electrical Conductivity (field)	Quarterly	uS/cm	6630	
Redox (field)	Quarterly	mV	-103.9	
Dissolved Oxygen (field)	Quarterly	mg/L	6	
Total Dissolved Solids	Quarterly	mg/L	3100	
Ammonia as N	Quarterly	mg/L	190	
Total Alkalinity (Carbonate and Bicarbonate)	Quarterly	mg/L	2100	
Chloride	Quarterly	mg/L	860	
Sulphate	Quarterly	mg/L	6.1	

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Date Sampled: 22/11/2019	Monitoring Point		
Pollutant	Frequency	Units	7 (LPI)
Sodium (Na)	Quarterly	mg/L	840
Potassium (I) Ion	Quarterly	mg/L	170
Calcium (II) Ion	Quarterly	mg/L	120
Magnesium (II) Ion	Quarterly	mg/L	69
Fluoride, F	Quarterly	mg/L	0.42
Nitrate as N in water	Quarterly	mg/L	<0.050
Nitrite as N in water	Quarterly	mg/L	<0.005
Total Phenolics (as Phenol)	Quarterly	mg/L	<0.01
Total Organic Carbon	Quarterly	mg/L	92
TRH C6 - C9	Quarterly	µg/L	<40
TRH C6 - C10	Quarterly	µg/L	<50
Benzene	Quarterly	µg/L	1.1
Toluene	Quarterly	µg/L	<0.5
Ethylbenzene	Quarterly	µg/L	<0.5
m+p-xylene	Quarterly	µg/L	<1
o-xylene	Quarterly	µg/L	<0.5
Naphthalene	Quarterly	µg/L	5.1

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Date Sampled: 22/11/2019	Monitoring Point		
Pollutant	Frequency	Units	7 (LPI)
TRH C10 - C14	Quarterly	µg/L	240
TRH C15 - C28	Quarterly	µg/L	2400
TRH C29 - C36	Quarterly	µg/L	<200
TRH >C10 - C16	Quarterly	µg/L	360
TRH >C10 - C16 less Naphthalene (F2)	Quarterly	µg/L	360
TRH >C16 - C34	Quarterly	µg/L	2400
TRH >C34 - C40	Quarterly	µg/L	<500
Naphthalene	Quarterly	µg/L	1.7
Acenaphthylene	Quarterly	µg/L	<0.1
Acenaphthene	Quarterly	µg/L	0.4
Fluorene	Quarterly	µg/L	0.3
Phenanthrene	Quarterly	µg/L	0.3
Anthracene	Quarterly	µg/L	<0.1
Fluoranthene	Quarterly	µg/L	<0.1
Pyrene	Quarterly	µg/L	<0.1
Benzo(a)anthracene	Quarterly	µg/L	<0.1
Chrysene	Quarterly	µg/L	<0.1

Environment Protection Licence Monitoring Data

Date Sampled: 22/11/2019	Monitoring Point		
Pollutant	Frequency	Units	7 (LPI)
Benzo(b,j+k)fluoranthene	Quarterly	µg/L	<0.2
Benzo(a)pyrene	Quarterly	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	Quarterly	µg/L	<0.1
Dibenzo(a,h)anthracene	Quarterly	µg/L	<0.1
Benzo(g,h,i)perylene	Quarterly	µg/L	<0.1
Total +ve PAH's	Quarterly	µg/L	4
HCB	Quarterly	µg/L	<0.1
alpha-BHC	Quarterly	µg/L	<0.1
gamma-BHC	Quarterly	µg/L	<0.1
beta-BHC	Quarterly	µg/L	<0.1
Heptachlor	Quarterly	µg/L	<0.1
delta-BHC	Quarterly	µg/L	<0.1
Aldrin	Quarterly	µg/L	<0.1
Heptachlor Epoxide	Quarterly	µg/L	<0.1
gamma-Chlordane	Quarterly	µg/L	<0.1
alpha-Chlordane	Quarterly	µg/L	<0.1
Endosulfan I	Quarterly	µg/L	<0.1






Environment Protection Licence Monitoring Data

Date Sampled: 22/11/2019	Monitoring Point		
Pollutant	Frequency	Units	7 (LPI)
pp-DDE	Quarterly	µg/L	<0.1
Dieldrin	Quarterly	µg/L	<0.1
Endrin	Quarterly	µg/L	<0.1
pp-DDD	Quarterly	µg/L	<0.1
Endosulfan II	Quarterly	µg/L	<0.1
pp-DDT	Quarterly	µg/L	<0.1
Endrin Aldehyde	Quarterly	µg/L	<0.1
Endosulfan Sulphate	Quarterly	µg/L	<0.1
Methoxychlor	Quarterly	µg/L	<0.1
Azinphos-methyl (Guthion)	Quarterly	µg/L	<0.2
Bromophos ethyl	Quarterly	µg/L	<0.2
Chlorpyrifos	Quarterly	µg/L	<0.2
Diazinon	Quarterly	µg/L	<0.5
Dichlorovos	Quarterly	µg/L	<0.5
Dimethoate	Quarterly	µg/L	<0.5
Ethion	Quarterly	µg/L	<0.2
Fenitrothion	Quarterly	µg/L	<0.2

Environment Protection Licence Monitoring Data

Date Sampled: 22/11/2019	Monitoring Point		
Pollutant	Frequency	Units	7 (LPI)
Malathion	Quarterly	µg/L	<0.2
Parathion	Quarterly	µg/L	<0.2
Aluminium	Quarterly	µg/L	8
Arsenic	Quarterly	µg/L	3
Barium	Quarterly	µg/L	1800
Cadmium	Quarterly	µg/L	<0.1
Chromium	Quarterly	µg/L	12
Hexavalent Chromium, Cr6+	Quarterly	mg/L	<0.004
Cobalt	Quarterly	µg/L	4
Copper	Quarterly	µg/L	64
Lead	Quarterly	µg/L	<1
Manganese	Quarterly	µg/L	160
Mercury	Quarterly	µg/L	<0.0001
Zinc	Quarterly	µg/L	73



-  Discharge Point
-  Railway Station
-  ALF (subject to EPL No. 4627)
-  Deed Boundary
-  Premised Area

Rev	Description	Date	Approved
W	ALF Boundary and Premise Area modification	18/06/2019	
U	Premised Area boundary modification	17/01/2019	
T	Added Discharge Point	08/01/2019	
S	Modified premised area boundary	13/11/2018	
R	Premised Area boundary modification	04/10/2018	
Q	ALF and Premised Area boundary modification	04/09/2018	
P	Modified Premise Area Boundary	12/07/2018	

Scales

0 1,200 m

1:36000


Imagery © Nearmap 2018

Client



Status			
For Information Only - NOT FOR CONSTRUCTION			
Original Size	A3	Drawn	PB
Coordinate System	MGA ZONE 56	Requested by	CG
Height Datum	AHD	Date Printed	18/06/2019
Filename:	Premise_Overview_revW.mxd		

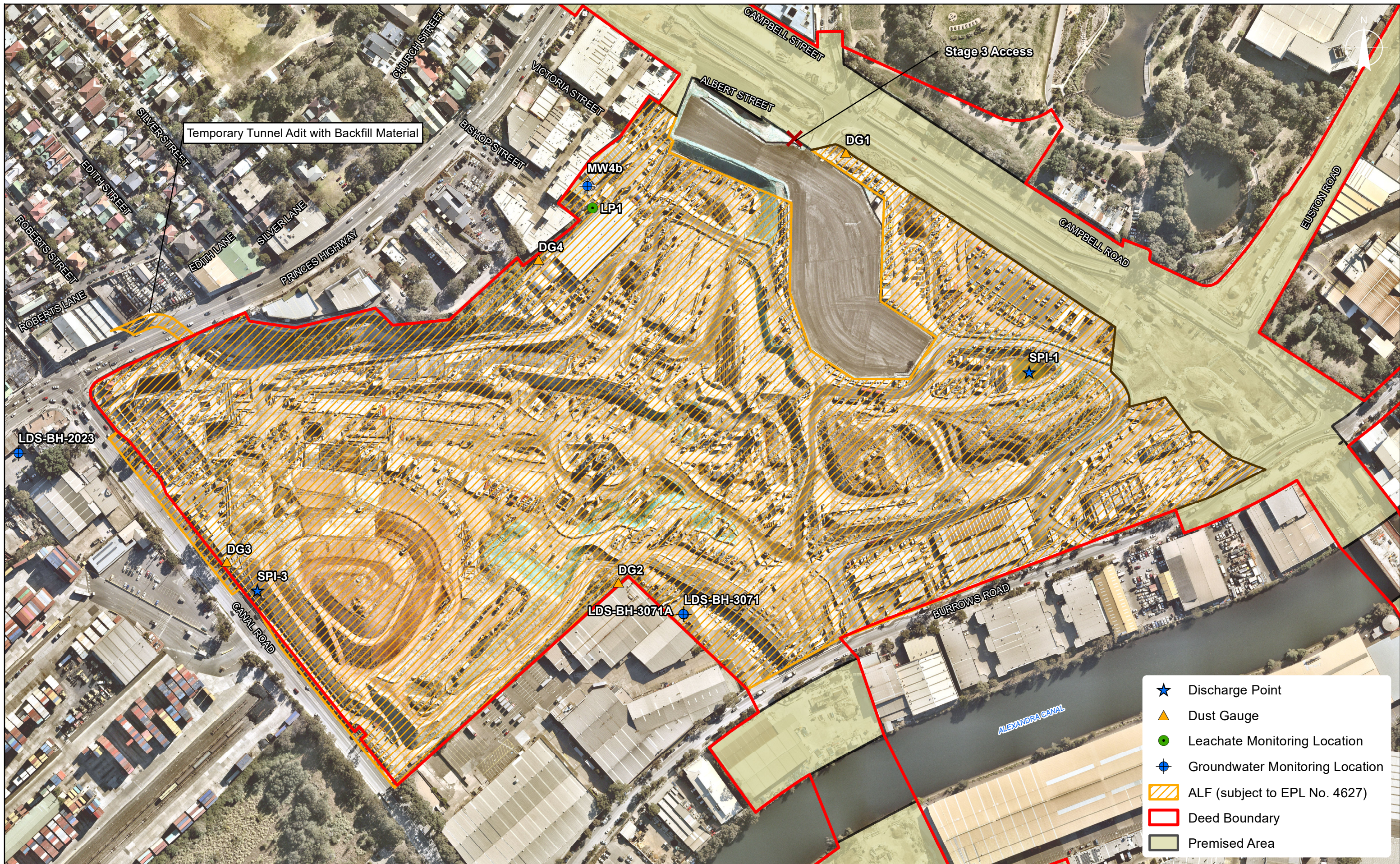
WestConnex New M5



WESTCONNEX New M5

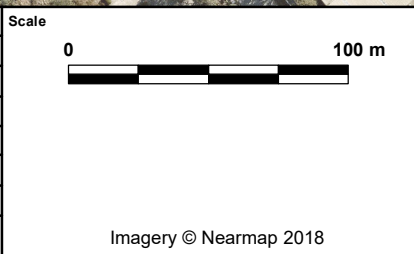
Premise Map Overview

DOCUMENT NUMBER
M5N-ES-MAP-PWD-0001-21



- ★ Discharge Point
- ▲ Dust Gauge
- Leachate Monitoring Location
- ⊕ Groundwater Monitoring Location
- ▨ ALF (subject to EPL No. 4627)
- ▭ Deed Boundary
- ▭ Premised Area

Rev	Description	Date	Approved
Q	Premised Area boundary modification	17/01/2019	
P	Added Discharge Point	08/01/2018	
O	Modified premised area boundary	04/10/2018	
N	ALF Boundary and Premise Area modification	04/09/2018	
M	ALF Boundary and Premise Area modification	03/07/2018	
L	Modified premised area boundary	14/03/2018	
K	ALF and Premised Area boundary modification	06/12/2017	



Client

Status
For Information Only - NOT FOR CONSTRUCTION

Original Size	A3	Drawn	PB
Coordinate System	MGA ZONE 56	Requested by	CG
Height Datum	AHD	Date Printed	17/01/2019
Filename:	Premise_SPI_RevQ.mxd		

WestConnex New M5

WESTCONNEX New M5

Premise Map
St Peters Interchange

DOCUMENT NUMBER
M5N-ES-MAP-PWD-0001-21