

# Environment Protection Licence Monitoring Data

Project name:	WestConnex – New M5	
Licensee	CPB Contractors Pty Limited	
Monitoring period	March 2019	
Website:	<a href="https://www.westconnex.com.au/NewM5Environment">https://www.westconnex.com.au/NewM5Environment</a>	
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	1/03/2019	50	*1.60	6.5-8.5	7.4	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	1/03/2019	50	*1.68	6.5-8.5	7.1	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	2/03/2019	50	*3.89	6.5-8.5	7.8	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	2/03/2019	50	*11.4	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	3/03/2019	50	*2.30	6.5-8.5	7.5	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	3/03/2019	50	*2.68	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	4/03/2019	50	*2.50	6.5-8.5	7.4	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	5/03/2019	50	*8.00	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	5/03/2019	50	*3.32	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	6/03/2019	50	*10.8	6.5-8.5	8.0	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	6/03/2019	50	*10.8	6.5-8.5	7.0	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 BED-1	7/03/2019	50	*7.94	6.5-8.5	7.1	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	7/03/2019	50	*30.2	6.5-8.5	8.1	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	8/03/2019	50	*0.60	6.5-8.5	7.1	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	9/03/2019	50	*1.20	6.5-8.5	7.7	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	9/03/2019	50	*1.45	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	10/03/2019	50	*0.60	6.5-8.5	7.7	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	10/03/2019	50	*1.58	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	11/03/2019	50	*1.10	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	11/03/2019	50	*1.90	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	12/03/2019	50	*1.10	6.5-8.5	8.1	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	12/03/2019	50	*1.40	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	13/03/2019	50	*1.09	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	13/03/2019	50	*29.0	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	14/03/2019	50	*1.20	6.5-8.5	7.4	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	14/03/2019	50	*1.85	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	15/03/2019	50	*1.20	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	15/03/2019	50	*1.88	6.5-8.5	7.0	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	16/03/2019	50	*1.20	6.5-8.5	7.5	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	16/03/2019	50	*1.23	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	16/03/2019	50	*1.20	6.5-8.5	7.6	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	17/03/2019	50	*1.93	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	17/03/2019	50	*1.20	6.5-8.5	7.4	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	18/03/2019	50	*5.14	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	18/03/2019	50	*1.83	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	18/03/2019	50	*1.10	6.5-8.5	7.7	None visible	None	Each discharge	Compliant
Sediment Basin SPI-1	19/03/2019	50	*15.0	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	19/03/2019	50	*1.60	6.5-8.5	6.8	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	19/03/2019	50	*2.50	6.5-8.5	7.8	None visible	None	Each discharge	Compliant
Sediment Basin SPI-1	20/03/2019	50	*10.0	6.5-8.5	6.5	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	20/03/2019	50	*0.50	6.5-8.5	7.6	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	20/03/2019	50	*6.83	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	21/03/2019	50	*1.60	6.5-8.5	6.8	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	21/03/2019	50	*15.7	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	22/03/2019	50	*0.98	6.5-8.5	7.0	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	22/03/2019	50	*15.25	6.5-8.5	7.2	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	23/03/2019	50	*2.28	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	23/03/2019	50	*18.25	6.5-8.5	7.7	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	24/03/2019	50	*0.95	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	24/03/2019	50	*1.60	6.5-8.5	7.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	25/03/2019	50	*0.85	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	25/03/2019	50	*8.70	6.5-8.5	7.5	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	26/03/2019	50	*1.38	6.5-8.5	7.1	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	26/03/2019	50	*1.80	6.5-8.5	7.5	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	26/03/2019	50	*0.65	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	27/03/2019	50	*1.80	6.5-8.5	7.5	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	27/03/2019	50	*0.55	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	27/03/2019	50	*1.80	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	28/03/2019	50	*0.63	6.5-8.5	7.0	None visible	None	Each discharge	Compliant
Water Treatment Plant ARN-2	29/03/2019	50	*7.70	6.5-8.5	7.8	None visible	None	Each discharge	Compliant
Water Treatment Plant BED-1	29/03/2019	50	*0.63	6.5-8.5	6.9	None visible	None	Each discharge	Compliant
Sediment Basin SPI-1	30/03/2019	50	*15.0	6.5-8.5	6.8	None visible	None	Each discharge	Compliant



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Discharge/Monitoring Point	Date sampled	Total suspended solids		pH		Oil & Grease		Monitoring frequency	Comment
		Licence limit	Result	Licence limit	Result	Licence limit	Result		
Sediment Basin SPI-1	30/03/2019	50	*22.0	6.5-8.5	7.6	None visible	None	Each discharge	Compliant
Sediment Basin SPI-1	31/03/2019	50	*10.0	6.5-8.5	6.7	None visible	None	Each discharge	Compliant
Sediment Basin SPI-1	31/03/2019	50	*48.0	6.5-8.5	8.5	None visible	None	Each discharge	Compliant

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

### Monitoring Type: Dust Monitoring (EPL 4627)

Monitoring Point / EPA Identification point (EPL 4627)	Start Date	Finish Date	Dust Deposition g/m2/month	Comment
SG01	11/02/2019	13/03/2019	11.4	
SG02	11/02/2019	13/03/2019	-	Inaccessible
SG03	11/02/2019	13/03/2019	8.8	
SG04	11/02/2019	13/03/2019	4.6	

### Monitoring Type: Ground Water Monitoring (EPL 4627)

Date Sampled: 25/02/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4b)	Frequency (MP 2-6)
Standing Water Level	mBTOC	Destroyed	13.81	2.44	Dry	Dry	Quarterly
Temperature (field)	deg c	Destroyed	22.4	23.3	Dry	Dry	Quarterly
pH (field)	pH units	Destroyed	10.20	7.31	Dry	Dry	Quarterly

# Environment Protection Licence Monitoring Data

Date Sampled: 25/02/2019		Monitoring Point					
Pollutant	Units	2 (MW1)	3 (LDS-BH-3071)	4 (LDS-BH-3071a)	5 (LDS-BH-2023)	6 (MW4b)	Frequency (MP 2-6)
Electrical Conductivity (field)	uS/cm	Destroyed	1126	1276	Dry	Dry	Quarterly
Redox (field)	mV	Destroyed	-97.1	14.4	Dry	Dry	Quarterly
Dissolved Oxygen (field)	mg/L	Destroyed	2.40	0.99	Dry	Dry	Quarterly
Total Organic Carbon	mg/L	Destroyed	5	5	Dry	Dry	Quarterly
Total Dissolved Solids	mg/L	Destroyed	800	1000	Dry	Dry	Quarterly
Chloride	mg/L	Destroyed	220	49	Dry	Dry	Quarterly
Sulphate	mg/L	Destroyed	31	140	Dry	Dry	Quarterly
Sodium (Na)	mg/L	Destroyed	220	71	Dry	Dry	Quarterly
Potassium (I) Ion	mg/L	Destroyed	6.4	20	Dry	Dry	Quarterly
Calcium (II) Ion	mg/L	Destroyed	18	190	Dry	Dry	Quarterly
Magnesium (II) Ion	mg/L	Destroyed	3.5		Dry	Dry	Quarterly
Ammonia as N	mg/L	Destroyed	0.47	0.057	Dry	Dry	Quarterly
Total Alkalinity (Carbonate and Bicarbonate)	mg/L	Destroyed	77	530	Dry	Dry	Quarterly
pH	pH Units	Destroyed	9.2	6.9	Dry	Dry	Quarterly

# Environment Protection Licence Monitoring Data

## Monitoring Type: Leachate Analytical Results (EPL 4627)

Date Sampled: 25/02/2019	Monitoring Point		
Pollutant	Units	7 (LP1)	Frequency (MP 7)
Temperature (field)	deg c	24.7	Quarterly
pH (field)	pH units	8.05	Quarterly
Electrical Conductivity (field)	uS/cm	11209	Quarterly
Redox (field)	mV	52.9	Quarterly
Dissolved Oxygen (field)	mg/L	2.10	Quarterly
Electrical Conductivity	µS/cm	11000	Quarterly
pH	pH units	7.8	Quarterly
Biological Oxygen Demand	mg/L	<5	Quarterly
Total Dissolved Solids	mg/L	6800	Quarterly
Ammonia as N	mg/L	76	Quarterly
Total Alkalinity (Carbonate and Bicarbonate)	mg/L	2200	Quarterly
Chloride	mg/L	2200	Quarterly
Sulphate	mg/L	140	Quarterly
Sodium (Na)	mg/L	2600	Quarterly
Potassium (I) Ion	mg/L	180	Quarterly
Calcium (II) Ion	mg/L	91	Quarterly

# Environment Protection Licence Monitoring Data

Date Sampled: 25/02/2019	Monitoring Point		
Pollutant	Units	7 (LP1)	Frequency (MP 7)
Magnesium (II) Ion	mg/L	66	Quarterly
Fluoride, F	mg/L	0.1	Quarterly
Nitrate as N in water	mg/L	0.58	Quarterly
Nitrite as N in water	mg/L	0.11	Quarterly
Total Phenolics (as Phenol)	mg/L	<0.05	Quarterly
Total Suspended Solids	mg/L	33	Quarterly
Total Organic Carbon	mg/L	94	Quarterly
TRH C6 - C9	µg/L	39	Quarterly
TRH C6 - C10	µg/L	52	Quarterly
Benzene	µg/L	<1	Quarterly
Toluene	µg/L	<1	Quarterly
Ethylbenzene	µg/L	<1	Quarterly
m+p-xylene	µg/L	<2	Quarterly
o-xylene	µg/L	<1	Quarterly
Naphthalene	µg/L	4	Quarterly
TRH C10 - C14	µg/L	290	Quarterly
TRH C15 - C28	µg/L	1400	Quarterly

# Environment Protection Licence Monitoring Data

Date Sampled: 25/02/2019	Monitoring Point		
Pollutant	Units	7 (LP1)	Frequency (MP 7)
TRH C29 - C36	µg/L	120	Quarterly
TRH >C10 - C16	µg/L	480	Quarterly
TRH >C10 - C16 less Naphthalene (F2)	µg/L	480	Quarterly
TRH >C16 - C34	µg/L	1300	Quarterly
TRH >C34 - C40	µg/L	<100	Quarterly
Naphthalene	µg/L	3	Quarterly
Acenaphthylene	µg/L	<1	Quarterly
Acenaphthene	µg/L	<1	Quarterly
Fluorene	µg/L	<1	Quarterly
Phenanthrene	µg/L	<1	Quarterly
Anthracene	µg/L	<1	Quarterly
Fluoranthene	µg/L	<1	Quarterly
Pyrene	µg/L	<1	Quarterly
Benzo(a)anthracene	µg/L	<1	Quarterly
Chrysene	µg/L	<1	Quarterly
Benzo(b,j+k)fluoranthene	µg/L	<2	Quarterly
Benzo(a)pyrene	µg/L	<1	Quarterly

# Environment Protection Licence Monitoring Data

Date Sampled: 25/02/2019	Monitoring Point		
Pollutant	Units	7 (LP1)	Frequency (MP 7)
Indeno(1,2,3-c, d)pyrene	µg/L	<1	Quarterly
Dibenzo(a,h)anthracene	µg/L	<1	Quarterly
Benzo(g,h,i)perylene	µg/L	<1	Quarterly
Benzo(a)pyrene TEQ	µg/L	<5	Quarterly
Total +ve PAH's	µg/L	3.2	Quarterly
HCB	µg/L	<0.2	Quarterly
alpha-BHC	µg/L	<0.2	Quarterly
gamma-BHC	µg/L	<0.2	Quarterly
beta-BHC	µg/L	<0.2	Quarterly
Heptachlor	µg/L	<0.2	Quarterly
delta-BHC	µg/L	<0.2	Quarterly
Aldrin	µg/L	<0.2	Quarterly
Heptachlor Epoxide	µg/L	<0.2	Quarterly
gamma-Chlordane	µg/L	<0.2	Quarterly
alpha-Chlordane	µg/L	<0.2	Quarterly
Endosulfan I	µg/L	<0.2	Quarterly
pp-DDE	µg/L	<0.2	Quarterly

# Environment Protection Licence Monitoring Data






Date Sampled: 25/02/2019	Monitoring Point		
Pollutant	Units	7 (LP1)	Frequency (MP 7)
Dieldrin	µg/L	<0.2	Quarterly
Endrin	µg/L	<0.2	Quarterly
pp-DDD	µg/L	<0.2	Quarterly
Endosulfan II	µg/L	<0.2	Quarterly
pp-DDT	µg/L	<0.2	Quarterly
Endrin Aldehyde	µg/L	<0.2	Quarterly
Endosulfan Sulphate	µg/L	<0.2	Quarterly
Methoxychlor	µg/L	<0.2	Quarterly
Azinphos-methyl (Guthion)	µg/L	<0.2	Quarterly
Bromophos ethyl	µg/L	<0.2	Quarterly
Chlorpyriphos	µg/L	<0.2	Quarterly
Chlorpyriphos-methyl	µg/L	<0.2	Quarterly
Diazinon	mg/L	<0.4	Quarterly
Dichlorovos	µg/L	<0.2	Quarterly
Dimethoate	µg/L	<0.2	Quarterly
Ethion	µg/L	<0.2	Quarterly
Fenitrothion	µg/L	<0.2	Quarterly

## Environment Protection Licence Monitoring Data

Date Sampled: 25/02/2019	Monitoring Point		
Pollutant	Units	7 (LP1)	Frequency (MP 7)
Malathion	µg/L	<0.2	Quarterly
Parathion	µg/L	<0.2	Quarterly
Ronnel	µg/L	<0.2	Quarterly
Aluminium	µg/L	<10	Quarterly
Arsenic	µg/L	3	Quarterly
Barium	µg/L	1600	Quarterly
Cadmium	µg/L	0.1	Quarterly
Chromium	µg/L	8	Quarterly
Hexavalent Chromium, Cr6+	mg/L	<0.025	Quarterly
Cobalt	µg/L	5	Quarterly
Copper	µg/L	43	Quarterly
Lead	µg/L	<1	Quarterly
Manganese	µg/L	110	Quarterly
Mercury	µg/L	<0.05	Quarterly
Zinc	µg/L	73	Quarterly






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

Rev	Description	Date	Approved
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	
O	ALF Boundary and Premise Area modification	03/07/2018	

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	17/01/2019
Filename:	Premise_Overview_revU.mxd		

WestConnex New M5

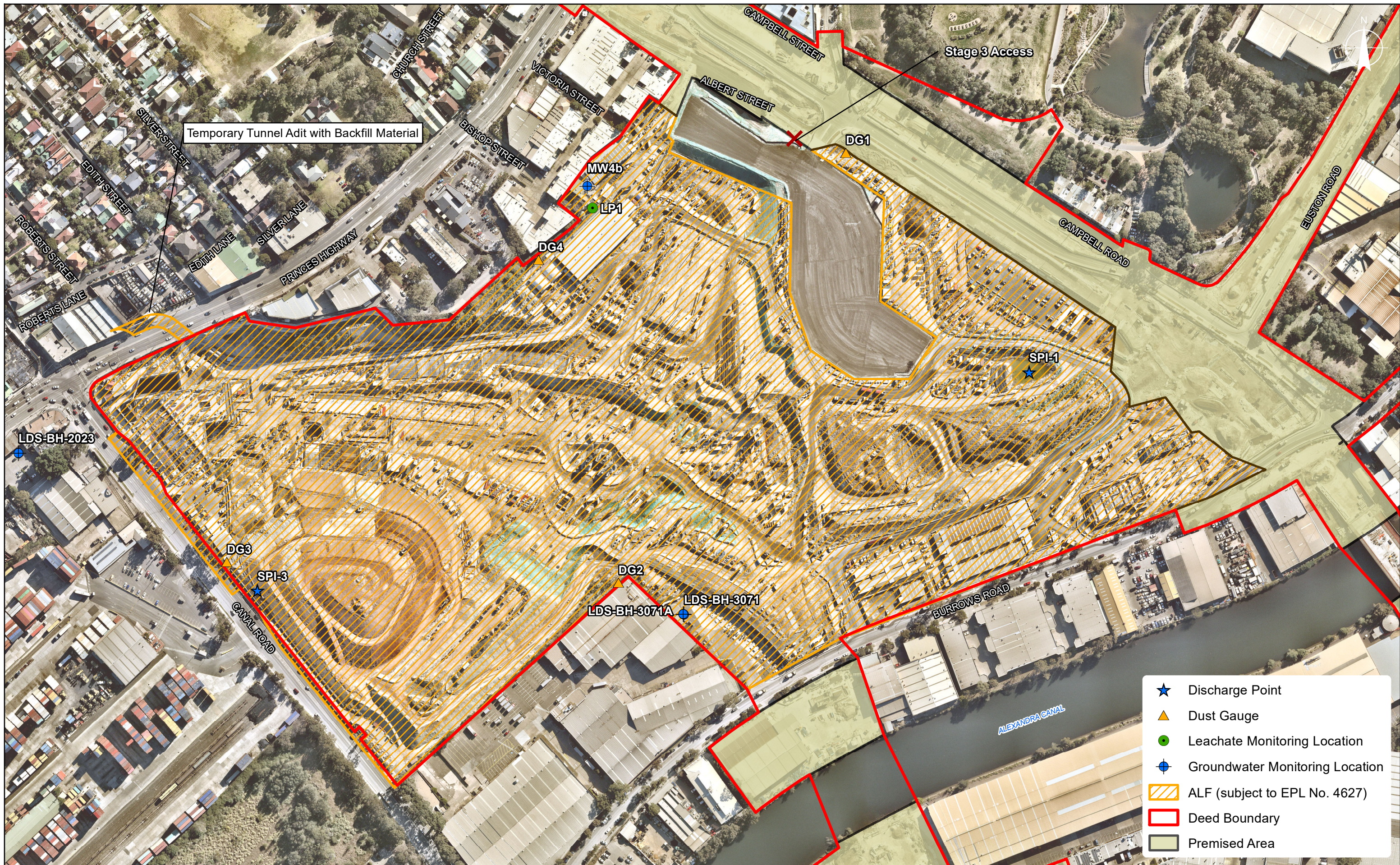


**WESTCONNEX New M5**

**Premise Map Overview**

DOCUMENT NUMBER





- ★ 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	

Scale

0 100 m

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	17/01/2019
Filename:	Premise_SPI_RevQ.mxd		

WestConnex New M5

**WESTCONNEX New M5**

**Premise Map**  
**St Peters Interchange**

DOCUMENT NUMBER