Surface Water Results
October 2024

City of Newcastle - Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Environment Protection License 5897 - Condition M2 – Special Frequency 1 (Daily during discharge)
Monthly rainfall = 60mm

Purpose of Sampling		SW56, SW57 & SW58a	SW56, SW57 & SW58a	SW56, SW57 & SW58a
CN ID	**EPL ID**	1/10/2024	2/10/2024	3/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	8.38	8.14	8.06
SW57	**57**	8.08	7.52	7.48
SW58a	**61**	7.49	7.34	7.29
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	948	946	956
SW57	**57**	350	358	359
SW58a	**61**	826	929	834
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	22	22	18
SW57	**57**	7	11	5
SW58a	**61**	16	11	12
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	0.40	0.35	0.32
SW57	**57**	<0.05	<0.05	<0.05
SW58a	**61**	<0.05	<0.05	<0.05
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	3	3	3
SW57	**57**	3	5	5
SW58a	**61**	2	2	3
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW56, SW57 & SW58a	SW56, SW57 & SW58a	SW56, SW57 & SW58a
CN ID		4/10/2024	5/10/2024	6/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	8.15	8.21	8.20
SW57	**57**	7.53	7.77	N/A
SW58a	**61**	7.34	7.47	7.50
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	961	978	989
SW57	**57**	365	368	N/A
SW58a	**61**	922	911	920
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	23	25	25
SW57	**57**	5	12	N/A
SW58a	**61**	2.5	7	8
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	0.27	0.21	<0.05
SW57	**57**	<0.05	<0.05	N/A
SW58a	**61**	<0.05	<0.05	0.16
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	3	3	3
SW57	**57**	5	6	N/A
SW58a	**61**	<2	3	2
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW56 & SW58A	SW56 & SW58A	SW56, SW57 & SW58A
CN ID		7/10/2024	8/10/2024	9/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	8.38	8.38	8.26
SW57	**57**	N/A	N/A	7.17
SW58a	**61**	7.54	7.50	7.65
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	1000	1020	998
SW57	**57**	N/A	N/A	359
SW58a	**61**	936	941	579
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	26	26	27
SW57	**57**	N/A	N/A	11
SW58a	**61**	7	8	9
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	0.10	<0.05	0.110
SW57	**57**	N/A	N/A	0.07
SW58a	**61**	<0.05	<0.05	0.060
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	3	3	4
SW57	**57**	N/A	N/A	6
SW58a	**61**	3	3	3
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW56, SW57 & SW58A	SW56, SW57 & SW58A	SW57 & SW58A
CN ID		10/10/2024	11/10/2024	12/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	8.36	8.18	N/A
SW57	**57**	7.43	7.62	7.68
SW58a	**61**	7.24	7.53	7.37
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	1010	1030	N/A
SW57	**57**	363	366	374
SW58a	**61**	840	969	971
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	25	32	N/A
SW57	**57**	2.5	2.5	5
SW58a	**61**	2.5	2.5	2.5
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	<0.05	<0.05	N/A
SW57	**57**	<0.05	<0.05	<0.05
SW58a	**61**	<0.05	<0.05	<0.05
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	4	5	N/A
SW57	**57**	5	7	4
SW58a	**61**	3	4	2
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling				SW57
CN ID		13/10/2024	14/10/2024	15/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	N/A	N/A	7.13
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	N/A	N/A	331
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	N/A	N/A	10
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	N/A	N/A	<0.05
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	N/A	N/A	5
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW57, SW58a & SW59	SW57, SW58a & SW59	SW57, SW58a & SW59
CN ID	**EPL ID**	16/10/2024	17/10/2024	18/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.09	7.40	6.94
SW58a	**61**	7.15	7.22	7.12
SW59	**66**	7.34	7.80	7.78
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	303	311	313
SW58a	**61**	579	655	794
SW59	**66**	823	818	829
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	10	10	12
SW58a	**61**	14	21	10
SW59	**66**	224	126	183
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	<0.05	<0.05	<0.05
SW58a	**61**	<0.05	0.110	0.140
SW59	**66**	0.18	0.13	0.13
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	2	4	8
SW58a	**61**	<2	<2	4
SW59	**66**	3	<2	4

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Purpose of Sampling		SW57, SW58a & SW59	SW57, SW58a & SW59	SW57, SW58a & SW59
CN ID	**EPL ID**	19/10/2024	20/10/2024	21/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.45	7.56	7.63
SW58a	**61**	7.22	7.39	7.42
SW59	**66**	7.62	7.80	7.47
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	316	308	314
SW58a	**61**	713	473	564
SW59	**66**	841	844	847
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	2.5	2.5	17
SW58a	**61**	13	10	13
SW59	**66**	249	100	216
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	<0.05	<0.05	<0.05
SW58a	**61**	<0.05	<0.05	<0.05
SW59	**66**	0.18	0.16	0.08
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	4	2	3
SW58a	**61**	<2	6	2
SW59	**66**	5	6	3

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Purpose of Sampling		SW57, SW58a & SW59	SW57 & SW59	SW59
CN ID	**EPL ID**	22/10/2024	23/10/2024	24/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.34	7.62	N/A
SW58a	**61**	7.02	N/A	N/A
SW59	**66**	7.39	7.98	7.86
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	311	328	N/A
SW58a	**61**	587	N/A	N/A
SW59	**66**	853	877	879
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	<5	6	N/A
SW58a	**61**	11	N/A	N/A
SW59	**66**	218	80	29
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	<0.05	<0.05	N/A
SW58a	**61**	0.20	N/A	N/A
SW59	**66**	0.12	<0.05	<0.05
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	2	<2	N/A
SW58a	**61**	2	N/A	N/A
SW59	**66**	3	<2	4

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Purpose of Sampling		SW57	SW57	
CN ID	**EPL ID**	25/10/2024	26/10/2024	27/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.43	7.12	N/A
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
	57	309	321	N/A
	61	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
	57	<5	<5	N/A
	61	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	0.08	<0.05	N/A
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	N/A
SW57	**57**	3	3	N/A
SW58a	**61**	N/A	N/A	N/A
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW58A & SW59	SW57 & SW58A	SW56, SW57& SW58A
CN ID	**EPL ID**	28/10/2024	29/10/2024	30/10/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	7.80
SW56	**56**	N/A	N/A	8.76
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	7.40	N/A	N/A
SW59	**66**	7.99	7.86	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	897
SW56	**56**	N/A	N/A	1110
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	757	N/A	N/A
SW59	**66**	917	944	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	20
SW56	**56**	N/A	N/A	31
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	8	N/A	N/A
SW59	**66**	37	36	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	1.93
SW56	**56**	N/A	N/A	<0.05
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	0.06	N/A	N/A
SW59	**66**	0.06	<0.05	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	4
SW56	**56**	N/A	N/A	5
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	4	N/A	N/A
SW59	**66**	3	4	N/A

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Purpose of Sampling				
CN ID	**EPL ID**	31/10/2024		
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	-	-
SW56	**56**	N/A	-	-
SW57	**57**	N/A	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	-	-
SW56	**56**	N/A	-	-
SW57	**57**	N/A	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	-	-
SW56	**56**	N/A	-	-
SW57	**57**	N/A	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	-	-
SW56	**56**	N/A	-	-
SW57	**57**	N/A	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	-	-
SW56	**56**	N/A	-	-
SW57	**57**	N/A	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-

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Environment Protection Licence 5897 - Condition M2 – SF1 and SF2 Sampling (Monthly - not discharging)

	CN ID		SW55	SW56
	EPL ID		55	56
DATE			30/10/24	30/10/24
Parameter	Units	LOR		
Alkalinity (as calcium carbonate)	mg/L	1	256	105
Aluminium	mg/L	0.01	0.33	0.38
Ammonia	mg/L	0.05	1.93	<0.05
Copper	mg/L	0.001	<0.001	0.002
Biological Oxygen Demand	mg/L	2	4	5
Electrical Conductivity	uS/cm	10	897	1110
Iron	mg/L	0.05	1.12	0.41
Lead	mg/L	0.001	0.002	<0.001
Nitrate as N	mg/L	0.05	<0.05	<0.05
Organochlorine Pesticides	mg/L	0.0005	<0.0005	<0.0005
Organophosphate Pesticides	mg/L	0.0005	<0.0005	<0.0005
pH	pH Units	0.01	7.80	8.76
Total Suspended Solids	mg/L	5	20	31
Zinc	mg/L	0.005	0.006	<0.005

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Environment Protection Licence 5897 - Condition M2 – SF1, SF2 and SF3 Sampling (First Day Discharge)

	CN ID		SW57	SW57	SW57	SW58a	SW58a	SW59	SW59
	EPL ID		57	57	57	61	61	66	66
DATE			09/10/24	15/10/24	25/10/24	16/10/24	28/10/24	16/10/24	28/10/24
Parameter	**Units**	**LOR**							
Alkalinity (as calcium carbonate)	mg/L	1	96	94	82	89	194	120	144
Aluminium	mg/L	0.01	0.18	0.25	0.09	0.85	0.38	10.3	2.79
Ammonia	mg/L	0.05	0.07	<0.05	0.08	<0.05	0.06	0.18	0.06
Arsenic	mg/L	0.001	0.002	0.001	0.001	0.001	0.003	0.008	0.003
Barium	mg/L	0.001	0.040	0.042	0.035	0.049	0.063	0.072	0.047
Benzene	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BOD	mg/L	2	6	5	3	<2	4	3	3
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium	mg/L	1	13	13	12	30	32	13	13
Chloride	mg/L	1	40	39	37	105	91	104	115
Chromium (Hex)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Total)	mg/L	0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.004	0.002
Copper	mg/L	0.001	<0.001	<0.001	<0.001	0.002	0.001	0.009	0.004
Electrical Conductivity	uS/cm	10	359	331	309	579	757	823	917
Ethyl benzene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Fluoride	mg/L	0.1	0.3	0.2	0.3	0.3	0.4	0.7	0.6
Iron	mg/L	0.05	1.16	0.46	0.33	0.84	1.82	9.63	3.65
Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.010	0.003
Magnesium	mg/L	1	7	6	6	13	16	16	17
Manganese	mg/L	0.001	0.508	0.092	0.028	0.077	0.715	0.333	0.103
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate as N	mg/L	0.01	0.02	0.03	<0.01	0.46	<0.01	0.14	<0.01
Organochlorine Pesticides	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Organophosphate Pesticides	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
pH	pH Units	0.01	7.17	7.13	7.43	7.15	7.40	7.34	7.99
Polycyclic Aromatic Hydrocarbons	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00005
Potassium	mg/L	1	4	4	3	6	11	4	4
Sodium	mg/L	1	46	46	46	64	92	132	150

Surface Water Results October 2024

	CN ID		SW57	SW57	SW57	SW58a	SW58a	SW59	SW59
	EPL ID		57	57	57	61	61	66	66
DATE			**09/10/24**	**15/10/24**	**25/10/24**	**16/10/24**	**28/10/24**	**16/10/24**	**28/10/24**
Parameter	**Units**	**LOR**							
Sulfate	mg/L	1	16	19	18	34	50	144	133
Total Suspended Solids	mg/L	5	11	10	<5	14	8	224	37
Toluene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Dissolved Solids	mg/L	10	246	184	198	313	414	672	593
Total Organic Carbon	mg/L	1	37	11	13	10	16	14	18
Total Petroleum Hydrocarbons	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Phenolics	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Zinc	mg/L	0.005	0.028	0.026	<0.005	<0.005	0.014	0.040	0.013

Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

- Final data obtained: 6/11/24
- Date published: 15/11/24

- Notes:
- CN = City of Newcastle
- EPL = Environment Protection Licence
- NR = no result (non-compliant sample, water body dry etc)
- NA = Not applicable, sample not required
- SW58a located in Wentworth Creek and impacted by other catchment activities.

A copy of the Environmental Protection Licence can be viewed at:
http://app.epa.nsw.gov.au/prpoeoapp/

A map showing the location of monitoring points can be viewed at:
https://www.newcastle.nsw.gov.au/Living/Waste-and-recycling/Summerhill-Waste-management-Centre/Environmental-Monitoring