Surface Water Results
October 2023

City of Newcastle - Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Environment Protection Licence 5897 - Condition M2 – Special Frequency 1 (Daily during discharge)
Monthly rainfall = 67.2

Purpose of Sampling				
CN ID	**EPL ID**	1/10/2023	2/10/2023	3/10/2023
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	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
SW57	**57**	N/A	N/A	N/A
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	N/A
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	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**	N/A	N/A	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				
CN ID	**EPL ID**	4/10/2023	5/10/2023	6/10/2023
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	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
SW57	**57**	N/A	N/A	N/A
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	N/A
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	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**	N/A	N/A	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				
CN ID	**EPL ID**	7/10/2023	8/10/2023	9/10/2023
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	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
SW57	**57**	N/A	N/A	N/A
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	N/A
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	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**	N/A	N/A	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				
CN ID	**EPL ID**	10/10/2023	11/10/23	12/10/23
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	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
SW57	**57**	N/A	N/A	N/A
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	N/A
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	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**	N/A	N/A	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				
CN ID	**EPL ID**	13/10/2023	14/10/23	15/10/23
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	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
SW57	**57**	N/A	N/A	N/A
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	N/A
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	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**	N/A	N/A	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				
CN ID	**EPL ID**	16/10/2023	17/10/23	18/10/23
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	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
SW57	**57**	N/A	N/A	N/A
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	N/A
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	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**	N/A	N/A	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			SW56	SW56 &SW58a
CN ID	**EPL ID**	19/10/2023	20/10/23	21/10/23
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	7.58	7.97
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	N/A	7.48
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	1110	1100
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	N/A	1090
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	16	8
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	N/A	2.5
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	0.48	0.42
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	N/A	0.13
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	3	3
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	N/A	<2
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW56 & SW58a	SW56 & SW58a	SW56 & SW58a
CN ID	**EPL ID**	22/10/2023	23/10/23	24/10/23
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	7.99	8.00	7.97
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	7.29	7.39	7.33
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	1110	1100	1110
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	1080	1090	1100
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	12	6	7
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	2.5	6	2.5
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	0.40	0.38	0.42
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	2.5	0.30	<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**	<2	3	<2
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	<2	<2	<2
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW56 & SW58a	SW55, SW56 & SW58a	SW55, SW57 & SW58a
CN ID	**EPL ID**	25/10/2023	26/10/23	27/10/23
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	7.83	7.56
SW56	**56**	7.96	7.93	N/A
SW57	**57**	N/A	N/A	7.09
SW58a	**61**	7.51	7.60	7.54
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	699	720
SW56	**56**	1110	1130	N/A
SW57	**57**	N/A	N/A	321
SW58a	**61**	1100	853	583
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	33	13
SW56	**56**	6	17	N/A
SW57	**57**	N/A	N/A	11
SW58a	**61**	5	11	10
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	0.58	0.90
SW56	**56**	0.36	0.34	N/A
SW57	**57**	N/A	N/A	<0.05
SW58a	**61**	0.11	0.24	<0.05
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	4	2
SW56	**56**	<2	<2	N/A
SW57	**57**	N/A	N/A	5
SW58a	**61**	<2	<2	<2
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW55, SW57 & SW58a	SW55, SW57 & SW58a	SW55, SW57& SW58a
CN ID	**EPL ID**	28/10/2023	29/10/23	30/10/23
Parameter:			**pH (pH unit)**	
SW55	**55**	7.60	7.57	7.59
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.11	7.36	7.33
SW58a	**61**	7.36	7.32	7.42
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	710	722	723
SW56	**56**	N/A	N/A	N/A
SW57	**57**	289	285	290
SW58a	**61**	680	673	690
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	18	44	24
SW56	**56**	N/A	N/A	N/A
SW57	**57**	12	20	22
SW58a	**61**	2.5	2.5	2.5
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	0.79	0.97	1.13
SW56	**56**	N/A	N/A	N/A
SW57	**57**	<0.05	<0.05	<0.05
SW58a	**61**	0.06	<0.05	<0.05
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	2	4	<2
SW56	**56**	N/A	N/A	N/A
SW57	**57**	4	3	3
SW58a	**61**	<<0.05	<2	<2
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW56 & SW57		
CN ID	**EPL ID**	31/10/2023	-	-
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	-	-
SW56	**56**	8.14	-	-
SW57	**57**	7.39	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	-	-
SW56	**56**	997	-	-
SW57	**57**	302	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	-	-
SW56	**56**	12	-	-
SW57	**57**	20	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	-	-
SW56	**56**	0.35	-	-
SW57	**57**	<0.05	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	-	-
SW56	**56**	3	-	-
SW57	**57**	6	-	-
SW58a	**61**	N/A	-	-
SW59	**66**	N/A	-	-

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Environment Protection Licence 5897 - Condition M2 – Special Frequency (SF) 1 and 2 Sampling

	CN ID		SW59
	EPL ID		59
DATE			31/10/23
Parameter	**Units**	**LOR**	
Alkalinity (as calcium carbonate)	mg/L	1	138
Aluminium	mg/L	0.01	1.87
Ammonia	mg/L	0.05	0.09
Copper	mg/L	0.001	0.003
Biological Oxygen Demand	mg/L	2	4
Electrical Conductivity	uS/cm	10	1140
Iron	mg/L	0.05	2.07
Lead	mg/L	0.001	0.002
Nitrate as N	mg/L	0.05	0.29
Organochlorine Pesticides	mg/L	0.0005	<0.0005
Organophosphate Pesticides	mg/L	0.0005	<0.0005
pH	pH Units	0.01	7.76
Total Suspended Solids	mg/L	5	16
Zinc	mg/L	0.005	0.015

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Environment Protection Licence 5897 - Condition M2 – SF1, SF2 and SF3 Sampling

	CN ID		SW55	SW56	SW56	SW57	SW58a
	EPL ID		55	56	56	57	58
DATE			26/10/23	20/10/23	31/10/23	27/10/23	23/10/23
Parameter	**Units**	**LOR**					
Alkalinity (as calcium carbonate)	mg/L	1	208	140	134	93	122
Aluminium	mg/L	0.01	0.24	1.00	0.88	0.30	0.31
Ammonia	mg/L	0.05	0.58	0.48	0.35	<0.05	0.30
Arsenic	mg/L	0.001	0.003	0.002	0.002	0.002	<0.001
Barium	mg/L	0.001	0.048	0.075	0.075	0.026	0.079
Benzene	mg/L	0.001	<0.001	<0.001	<0.001	<1	<0.001
BOD	mg/L	2	4	<2	3	<2	2
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium	mg/L	1	29	60	53	8	52
Chloride	mg/L	1	60	236	192	54	231
Chromium (Hex)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Total)	mg/L	0.001	<0.001	<0.001	0.002	<0.001	<0.001
Cobalt	mg/L	0.001	<0.001	0.001	0.001	<0.001	<0.001
Copper	mg/L	0.001	<0.001	0.004	0.003	<0.001	0.001
Electrical Conductivity	uS/cm	10	699	1110	997	321	1090
Ethyl benzene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Fluoride	mg/L	0.1	0.5	0.5	0.6	0.3	0.5
Iron	mg/L	0.05	0.38	0.95	0.86	0.98	0.28
Lead	mg/L	0.001	<0.001	0.001	0.001	<0.001	<0.001
Magnesium	mg/L	1	16	19	16	5	21
Manganese	mg/L	0.001	0.301	0.553	0.573	0.249	0.056
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate as N	mg/L	0.01	0.02	0.93	0.79	<0.01	0.50
Organochlorine Pesticides	mg/L	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
pH	pH Units	0.01	7.83	7.58	8.14	7.09	7.39

Surface Water Results October 2023

Polycyclic Aromatic Hydrocarbons	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Potassium	mg/L	1	18	8	7	10	10
Sodium	mg/L	1	91	121	112	46	122
Sulfate	mg/L	1	3	79	65	<1	90
Total Suspended Solids	mg/L	5	33	16	12	11	6
Toluene	mg/L	0.002	<0.002	<0.002	<0.002	17	<0.002
Total Dissolved Solids	mg/L	10	444	744	611	198	432
Total Organic Carbon	mg/L	1	17	12	11	20	13
Total Petroleum Hydrocarbons	mg/L	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
Zinc	mg/L	0.005	<0.005	0.029	0.006	<0.005	<0.005

Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Final data obtained: 8/11/2023
Date published: 15/11/2023

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
1. Water body not discharging from site
2. SW58a located in Wentworth Creek and impacted by other catchment activities.
- bottle misplaced

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