

Surface Water Results

August 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 = 62.4

No Discharge at SW56 and SW59 for the month of August 2023

Purpose of Sampling		SW55, SW5 and SW58a	SW55, SW57 and SW58a	SW55, SW57 and SW58a
CN ID	EPL ID	7/08/2023	8/08/2023	9/08/2023
Parameter:		pH (pH unit)		
SW55	55	8.93	8.92	8.81
SW56	56	N/A	N/A	N/A
SW57	57	7.44	7.40	7.53
SW58a	61	7.22	7.16	7.32
SW59	66	N/A	N/A	N/A
Parameter:		Electrical Conductivity (µS/cm)		
SW55	55	530	577	609
SW56	56	N/A	N/A	N/A
SW57	57	248	265	266
SW58a	61	706	651	623
SW59	66	N/A	N/A	N/A
Parameter:		Suspended Solids (mg/L)		
SW55	55	55	38	52
SW56	56	N/A	N/A	N/A
SW57	57	13	12	18
SW58a	61	33	26	47
SW59	66	N/A	N/A	N/A
Parameter:		Ammonia (mg/L)		
SW55	55	0.07	0.15	0.05
SW56	56	N/A	N/A	N/A
SW57	57	<0.05	0.08	<0.05
SW58a	61	<0.05	0.11	<0.05
SW59	66	N/A	N/A	N/A
Parameter:		Biological Oxygen Demand (mg/L)		
SW55	55	14	10	8
SW56	56	N/A	N/A	N/A
SW57	57	<2	2	<2
SW58a	61	2	2	<2
SW59	66	N/A	N/A	N/A

Surface Water Results

August 2023

Purpose of Sampling		SW55, SW57 and SW58a	SW55, SW57 and SW58a	SW55, SW57 and SW58a
CN ID	EPL ID	10/08/2023	11/08/2023	12/08/2023
Parameter:		pH (pH unit)		
SW55	55	9.26	8.59	8.98
SW56	56	N/A	N/A	N/A
SW57	57	7.64	7.76	7.21
SW58a	61	6.91	7.45	7.00
SW59	66	N/A	N/A	N/A
Parameter:		Electrical Conductivity (µS/cm)		
SW55	55	616	643	646
SW56	56	N/A	N/A	N/A
SW57	57	255	272	273
SW58a	61	598	577	534
SW59	66	N/A	N/A	N/A
Parameter:		Suspended Solids (mg/L)		
SW55	55	82	39	90
SW56	56	N/A	N/A	N/A
SW57	57	25	26	22
SW58a	61	16	12	10
SW59	66	N/A	N/A	N/A
Parameter:		Ammonia (mg/L)		
SW55	55	<0.05	0.21	<0.05
SW56	56	N/A	N/A	N/A
SW57	57	<0.05	<0.05	<0.05
SW58a	61	<0.05	0.06	0.06
SW59	66	N/A	N/A	N/A
Parameter:		Biological Oxygen Demand (mg/L)		
SW55	55	15	9	26
SW56	56	N/A	N/A	N/A
SW57	57	2	<2	<2
SW58a	61	2	2	<2
SW59	66	N/A	N/A	N/A

Surface Water Results

August 2023

Purpose of Sampling		SW55, SW57 and SW58a	SW55, SW57 and SW58a	SW55, SW57 and SW58a
CN ID	EPL ID	13/08/2023	14/08/2023	15/08/2023
Parameter:		pH (pH unit)		
SW55	55	9.69	9.36	9.12
SW56	56	N/A	N/A	N/A
SW57	57	8.26	8.02	7.66
SW58a	61	7.65	7.78	7.51
SW59	66	N/A	N/A	N/A
Parameter:		Electrical Conductivity (µS/cm)		
SW55	55	639	638	638
SW56	56	N/A	N/A	N/A
SW57	57	271	270	272
SW58a	61	485	412	481
SW59	66	N/A	N/A	N/A
Parameter:		Suspended Solids (mg/L)		
SW55	55	35	49	37
SW56	56	N/A	N/A	N/A
SW57	57	78	40	14
SW58a	61	9	14	6
SW59	66	N/A	N/A	N/A
Parameter:		Ammonia (mg/L)		
SW55	55	<0.05	<0.05	<0.05
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	24	17	12
SW56	56	N/A	N/A	N/A
SW57	57	<2	<2	2
SW58a	61	<2	2	2
SW59	66	N/A	N/A	N/A

Surface Water Results

August 2023

Purpose of Sampling		SW55, SW57 and SW58a	SW55, SW57 and SW58a	SW55, SW57 and SW58a
CN ID	EPL ID	16/08/2023	17/08/23	18/08/23
Parameter:		pH (pH unit)		
SW55	55	8.79	8.41	8.34
SW56	56	N/A	N/A	N/A
SW57	57	7.60	7.61	7.36
SW58a	61	7.43	7.41	7.24
SW59	66	N/A	N/A	N/A
Parameter:		Electrical Conductivity (µS/cm)		
SW55	55	644	655	649
SW56	56	N/A	N/A	N/A
SW57	57	270	270	265
SW58a	61	483	468	428
SW59	66	N/A	N/A	N/A
Parameter:		Suspended Solids (mg/L)		
SW55	55	25	20	20
SW56	56	N/A	N/A	N/A
SW57	57	15	21	9
SW58a	61	7	6	11
SW59	66	N/A	N/A	N/A
Parameter:		Ammonia (mg/L)		
SW55	55	<0.05	0.05	0.19
SW56	56	N/A	N/A	N/A
SW57	57	<0.05	<0.05	<0.05
SW58a	61	<0.05	<0.05	0.07
SW59	66	N/A	N/A	N/A
Parameter:		Biological Oxygen Demand (mg/L)		
SW55	55	13	9	6
SW56	56	N/A	N/A	N/A
SW57	57	3	2	<2
SW58a	61	2	2	<2
SW59	66	N/A	N/A	N/A

Surface Water Results

August 2023

Purpose of Sampling		SW55, SW57 and SW58a	SW55, SW57 and SW58a	SW55 and SW57
CN ID	EPL ID	19/08/2023	20/08/2023	21/08/2023
Parameter:		pH (pH unit)		
SW55	55	7.69	8.10	7.70
SW56	56	N/A	N/A	N/A
SW57	57	7.42	7.74	7.59
SW58a	61	7.24	7.34	7.30
SW59	66	N/A	N/A	N/A
Parameter:		Electrical Conductivity (µS/cm)		
SW55	55	648	655	660
SW56	56	N/A	N/A	N/A
SW57	57	262	265	270
SW58a	61	467	490	493
SW59	66	N/A	N/A	N/A
Parameter:		Suspended Solids (mg/L)		
SW55	55	21	27	21
SW56	56	N/A	N/A	N/A
SW57	57	10	19	33
SW58a	61	8	5	9
SW59	66	N/A	N/A	N/A
Parameter:		Ammonia (mg/L)		
SW55	55	0.37	0.30	0.51
SW56	56	N/A	N/A	N/A
SW57	57	<0.05	<0.05	<0.05
SW58a	61	<0.05	<0.05	0.10
SW59	66	N/A	N/A	N/A
Parameter:		Biological Oxygen Demand (mg/L)		
SW55	55	3	4	4
SW56	56	N/A	N/A	N/A
SW57	57	<2	<2	<2
SW58a	61	<2	<2	<2
SW59	66	N/A	N/A	N/A

Surface Water Results

August 2023

Purpose of Sampling		SW55 and SW57	SW55	SW55
CN ID	EPL ID	22/08/2023	23/08/2023	24/08/2023
Parameter:		pH (pH unit)		
SW55	55	7.87	7.98	8.26
SW56	56	N/A	N/A	N/A
SW57	57	7.48	N/A	N/A
SW58a	61	7.22	N/A	N/A
SW59	66	N/A	N/A	N/A
Parameter:		Electrical Conductivity (µS/cm)		
SW55	55	673	685	678
SW56	56	N/A	N/A	N/A
SW57	57	274	N/A	N/A
SW58a	61	506	N/A	N/A
SW59	66	N/A	N/A	N/A
Parameter:		Suspended Solids (mg/L)		
SW55	55	17	31	23
SW56	56	N/A	N/A	N/A
SW57	57	37	N/A	N/A
SW58a	61	10	N/A	N/A
SW59	66	N/A	N/A	N/A
Parameter:		Ammonia (mg/L)		
SW55	55	0.56	0.52	0.48
SW56	56	N/A	N/A	N/A
SW57	57	<0.05	N/A	N/A
SW58a	61	0.13	N/A	N/A
SW59	66	N/A	N/A	N/A
Parameter:		Biological Oxygen Demand (mg/L)		
SW55	55	3	5	5
SW56	56	N/A	N/A	N/A
SW57	57	<2	N/A	N/A
SW58a	61	<2	N/A	N/A
SW59	66	N/A	N/A	N/A

Surface Water Results

August 2023

Purpose of Sampling		SW55	SW55	SW55
CN ID	EPL ID	25/08/2023	26/08/2023	27/08/2023
Parameter:		pH (pH unit)		
SW55	55	8.01	7.76	8.13
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	679	679	702
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	22	77	44
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	0.52	0.36	0.21
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	4	8	8
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

Surface Water Results

August 2023

Purpose of Sampling		SW55	SW55	SW55
CN ID	EPL ID	28/08/2023	29/08/2023	30/08/2023
Parameter:		pH (pH unit)		
SW55	55	8.68	8.97	8.57
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	677	684	671
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	17	18	23
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	0.13	0.12	0.10
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	2	8	8
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

Surface Water Results

August 2023

Purpose of Sampling		SW55, SW57 and SW58a		
CN ID	EPL ID	31/08/2023		
Parameter:		pH (pH unit)		
SW55	55	9.18		
SW56	56	N/A		
SW57	57	7.55		
SW58a	61	7.40		
SW59	66	N/A		
Parameter:		Electrical Conductivity (µS/cm)		
SW55	55	656		
SW56	56	N/A		
SW57	57	254		
SW58a	61	222		
SW59	66	N/A		
Parameter:		Suspended Solids (mg/L)		
SW55	55	16		
SW56	56	N/A		
SW57	57	28		
SW58a	61	8		
SW59	66	N/A		
Parameter:		Ammonia (mg/L)		
SW55	55	<0.05		
SW56	56	N/A		
SW57	57	0.03		
SW58a	61	0.02		
SW59	66	N/A		
Parameter:		Biological Oxygen Demand (mg/L)		
SW55	55	9		
SW56	56	N/A		
SW57	57	3		
SW58a	61	4		
SW59	66	N/A		

Surface Water Results

August 2023

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

	CN ID		SW55	SW56	SW57	SW57	SW58a	SW58a	SW59
	EPL ID		55	56	57	57	58	58	59
DATE			7/08/23	29/08/23 31/08/23	7/08/23	31/08/23	7/08/23	31/08/23	29/08/23 31/08/23
Parameter	Units	LOR							
Alkalinity (as calcium carbonate)	mg/L	1	133	130	66	87	86	67	139
Aluminium	mg/L	0.01	0.45	0.62	0.58	1.14	0.68	0.70	2.94
Ammonia	mg/L	0.05	0.07	0.45	<0.05	0.03	<0.05	0.02	0.60
Arsenic	mg/L	0.001	0.003	0.002	<0.001	0.002	0.002	0.003	0.002
Barium	mg/L	0.001	0.032	0.072	0.024	0.039	0.050	0.025	0.051
Benzene	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BOD	mg/L	2	14	<2	<2	3	2	4	<2
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium	mg/L	1	22	70	7	6	25	11	30
Chloride	mg/L	1	68	227	30	35	119	29	178
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	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.002
Cobalt	mg/L	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.003
Copper	mg/L	0.001	0.002	0.004	<0.001	<0.001	0.003	0.002	0.004
Electrical Conductivity	uS/cm	10	530	1050	248	254	706	222	1160
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	0.4	0.2	0.3	0.2	0.2	0.6
Iron	mg/L	0.05	0.51	0.45	0.70	1.68	0.64	0.84	2.68
Lead	mg/L	0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.003
Magnesium	mg/L	1	11	19	4	4	14	5	26
Manganese	mg/L	0.001	0.087	0.168	0.038	0.124	0.049	0.075	0.514
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	0.24	1.24	0.11	<0.01	0.94	0.82	0.33
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	8.93	7.96	7.44	7.55	7.22	7.40	7.82
Polycyclic Aromatic Hydrocarbons	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Potassium	mg/L	1	14	9	5	6	9	7	7

Surface Water Results August 2023



Sodium	mg/L	1	62	126	35	42	83	28	184
Sulfate	mg/L	1	37	93	10	8	45	11	213
Total Suspended Solids	mg/L	5	55	7	13	28	33	8	21
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	318	640	159	184	432	153	795
Total Organic Carbon	mg/L	1	19	12	11	12	13	13	12
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	0.016	0.011	<0.005	<0.005	0.007	0.041	0.019

Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Final data obtained: 8/09/2023

Date published: 15/09/2023

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.

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>