

# Surface Water Results

## February 2023



### 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 = 114.0mm

Purpose of Sampling		SW57	SW57	SW57
CN ID	EPL ID	15/02/2024	16/02/2024	17/02/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	6.72	6.75	7.29
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	266	270	279
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	12	12	7
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
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	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	6	5	4
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A

# Surface Water Results

## February 2023



Purpose of Sampling		SW57	SW57	SW57
CN ID		18/02/2024	19/02/2024	20/02/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	7.26	7.60	6.79
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	279	287	278
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	8	2.5	5
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
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	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	4	5	N/A
SW58a	61	N/A	N/A	4
SW59	66	N/A	N/A	N/A

# Surface Water Results

## February 2023

Purpose of Sampling		SW57	SW57	SW57
CN ID		21/02/2024	22/02/2024	23/02/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	6.67	7.07	7.18
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	275	277	278
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	8	16	8
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	0.08	0.17	0.08
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	5	4	5
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A

# Surface Water Results

## February 2023

Purpose of Sampling		SW57	SW57	SW57
CN ID		24/02/2024	25/02/2024	26/02/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	6.99	7.05	7.22
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	248	245	254
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	12	13	10
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
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	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	6	4	9
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A

# Surface Water Results

## February 2023

Purpose of Sampling		SW57	SW57	SW57
CN ID		27/02/2024	28/02/2024	29/02/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	7.10	7.17	7.14
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	257	291	261
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	8	9	23
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	<0.05	0.10	<0.05
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	N/A	N/A	N/A
SW57	57	6	4	6
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A

# Surface Water Results

## February 2023



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

	CN ID		SW55	SW56	SW57	SW58a	SW59
	EPL ID		55	56	57	61	66
DATE			28/02/24	28/02/24	15/02/24	28/02/24	28/02/24
Parameter	Units	LOR					
Alkalinity (as calcium carbonate)	mg/L	1	160	113	82	67	158
Aluminium	mg/L	0.01	0.74	2.52	0.15	0.70	3.47
Ammonia	mg/L	0.05	<0.05	<0.05	0.05	<0.05	<0.05
Arsenic	mg/L	0.001	0.003	0.004	<0.001	0.002	0.008
Barium	mg/L	0.001	0.074	0.130	0.031	0.034	0.090
Benzene	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BOD	mg/L	2	7	6	6	3	28
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium	mg/L	1	71	68	8	15	9
Chloride	mg/L	1	109	281	33	59	208
Chromium (Hex)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Total)	mg/L	0.001	<0.001	0.002	<0.001	0.001	0.002
Cobalt	mg/L	0.001	0.002	0.002	<0.001	<0.001	0.003
Copper	mg/L	0.001	0.001	0.003	<0.001	0.002	0.009
Electrical Conductivity	uS/cm	10	1030	1250	266	360	1320
Ethyl benzene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Fluoride	mg/L	0.1	0.5	0.7	0.3	0.2	0.6
Iron	mg/L	0.05	1.52	2.26	0.81	1.14	3.82
Lead	mg/L	0.001	0.002	0.003	<0.001	<0.001	0.004
Magnesium	mg/L	1	30	24	4	4	29
Manganese	mg/L	0.001	0.784	1.04	0.143	0.081	0.600
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate as N	mg/L	0.01	<0.05	<0.05	<0.01	<0.05	<0.05
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	7.37	7.89	6.72	7.26	8.18
Polycyclic Aromatic Hydrocarbons	mg/L	0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
Potassium	mg/L	1	16	11	8	6	9
Sodium	mg/L	1	111	155	35	46	225
Sulfate	mg/L	1	226	79	6	23	195
Total Suspended Solids	mg/L	5	37	56	12	6	87

# Surface Water Results February 2023



	CN ID		SW55	SW56	SW57	SW58a	SW59
	EPL ID		55	56	57	61	66
DATE			28/02/24	28/02/24	15/02/24	28/02/24	28/02/24
Parameter	Units	LOR					
Toluene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Dissolved Solids	mg/L	10	641	724	162	204	800
Total Organic Carbon	mg/L	1	18	15	15	14	15
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	0.018	0.012	<0.005	<0.009	0.023

## Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Final data obtained: 6/03/24

Date published: 25/03/24

### 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

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>