

# Surface Water Results

## November 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 = 83mm

Purpose of Sampling			SW57	SW57
CN ID	EPL ID	1/11/2024	2/11/2024	3/11/2024
<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	N/A	7.45	7.62
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	N/A	311	296
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	N/A	<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	N/A	<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	N/A	3	3
SW58a	61	N/A	N/A	N/A
SW59	66	N/A	N/A	N/A

# Surface Water Results

## November 2024



Purpose of Sampling		SW57 & SW59	SW57 & SW59	SW57 & SW59
CN ID		4/11/2024	5/11/2024	6/11/2024
<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	7.36	7.33	7.33
SW58a	61	N/A	N/A	N/A
SW59	66	8.01	8.06	8.11
<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	297	297	291
SW58a	61	N/A	N/A	N/A
SW59	66	906	889	918
<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	<5	<5	<5
SW58a	61	N/A	N/A	N/A
SW59	66	24	19	23
<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	<0.05	<0.05	<0.05
<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	3	2	2
SW58a	61	N/A	N/A	N/A
SW59	66	5	3	3

# Surface Water Results

## November 2024



Purpose of Sampling		SW56 & SW59	SW56, SW57, SW58A & SW59	SW56, SW57, SW58A & SW59
CN ID		7/11/2024	8/11/2024	9/11/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	8.62	8.48	8.87
SW57	57	N/A	7.14	7.24
SW58a	61	N/A	7.42	7.37
SW59	66	8.10	8.20	7.86
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	1160	1100	1100
SW57	57	N/A	282	274
SW58a	61	N/A	737	898
SW59	66	928	N/A890	910
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	37	47	54
SW57	57	N/A	8	8
SW58a	61	N/A	30	62
SW59	66	48	80	161
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	<0.05	<0.05	<0.05
SW57	57	N/A	<0.05	<0.05
SW58a	61	N/A	<0.05	<0.05
SW59	66	<0.05	<0.05	<0.05
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	3	4	4
SW57	57	N/A	4	3
SW58a	61	N/A	4	2
SW59	66	3	4	4

# Surface Water Results

## November 2024

Purpose of Sampling		SW56, SW57, SW58A & SW59	SW56, SW58A &SW59	SW57, SW58A & SW59
CN ID		10/11/2024	11/11/2024	12/11/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	9.08	8.39	N/A
SW57	57	7.57	N/A	7.19
SW58a	61	7.34	7.28	7.29
SW59	66	8.29	8.12	7.99
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	1120	1170	N/A
SW57	57	268	N/A	262
SW58a	61	972	1040	699
SW59	66	924	937	818
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	196	130	N/A
SW57	57	9	N/A	6
SW58a	61	43	25	9
SW59	66	98	36	48
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	<0.05	<0.05	N/A
SW57	57	<0.05	N/A	<0.05
SW58a	61	<0.05	<0.05	<0.05
SW59	66	<0.05	<0.05	<0.05
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A	N/A	N/A
SW56	56	5	6	N/A
SW57	57	3	N/A	3
SW58a	61	<2	<2	<2
SW59	66	3	2	3

# Surface Water Results

## November 2024

Purpose of Sampling		SW57, SW58A & SW59	SW57, SW58A & SW59	SW57, SW58A & SW59
CN ID		13/11/2024	14/11/2024	15/11/2024
<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	6.62	7.06	7.10
SW58a	61	7.23	7.46	7.49
SW59	66	7.22	7.20	7.14
<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	284	275	273
SW58a	61	658	811	832
SW59	66	876	875	884
<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	<5	6	7
SW58a	61	6	23	56
SW59	66	29	28	101
<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	<0.05	<0.05	<0.05
SW59	66	0.44	0.41	0.36
<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	3	2	3
SW58a	61	<2	<2	2
SW59	66	4	2	3

# Surface Water Results November 2024

Purpose of Sampling		SW57, SW58a & SW59	SW57, SW58a & SW59	SW57, SW58a & SW59
CN ID	EPL ID	16/11/2024	17/11/2024	18/11/2024
<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	7.21	7.52	7.12
SW58a	61	7.52	7.49	7.54
SW59	66	7.28	7.26	7.39
<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	271	267	266
SW58a	61	861	877	830
SW59	66	881	879	884
<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	<5	<5	10
SW58a	61	18	48	19
SW59	66	36	35	29
<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	<0.05	<0.05	<0.05
SW59	66	0.21	0.23	0.11
<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	2	2	3
SW58a	61	2	3	2
SW59	66	3	3	4

# Surface Water Results

## November 2024

Purpose of Sampling		SW57, SW58a & SW59	SW57, SW58a & SW59	SW57, SW58a & SW59
CN ID	EPL ID	19/11/2024	20/11/2024	21/11/2024
<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	7.16	7.20	7.46
SW58a	61	7.53	7.50	7.54
SW59	66	7.39	7.36	7.45
<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	275	275
SW58a	61	836	900	906
SW59	66	909	910	904
<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	<5	<5	<5
SW58a	61	49	24	17
SW59	66	95	53	310
<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	<0.05	<0.05	<0.05
SW59	66	0.18	0.15	<0.05
<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	2	2	2
SW58a	61	<2	<2	<2
SW59	66	4	4	4

# Surface Water Results

## November 2024

Purpose of Sampling		SW58a & SW59		
CN ID	EPL ID	22/11/2024	23/11/2024	24/11/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55	N/A		
SW56	56	N/A		
SW57	57	N/A		
SW58a	61	7.51		
SW59	66	7.45		
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55	N/A		
SW56	56	N/A		
SW57	57	N/A		
SW58a	61	926		
SW59	66	921		
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55	N/A		
SW56	56	N/A		
SW57	57	N/A		
SW58a	61	30		
SW59	66	155		
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
SW55	55	N/A		
SW56	56	N/A		
SW57	57	N/A		
SW58a	61	<0.05		
SW59	66	0.09		
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55	N/A		
SW56	56	N/A		
SW57	57	N/A		
SW58a	61	2		
SW59	66	4		



# Surface Water Results

## November 2024

Purpose of Sampling				SW55
CN ID	EPL ID	25/11/2024	26/11/2024	27/11/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55			9.02
SW56	56			N/A
SW57	57			N/A
SW58a	61			N/A
SW59	66			N/A
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55			844
SW56	56			N/A
	57			N/A
	61			N/A
SW59	66			N/A
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55			44
SW56	56			N/A
	57			N/A
	61			N/A
SW59	66			N/A
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
SW55	55			<0.05
SW56	56			N/A
SW57	57			N/A
SW58a	61			N/A
SW59	66			N/A
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55			6
SW56	56			N/A
SW57	57			N/A
SW58a	61			N/A
SW59	66			N/A

# Surface Water Results

## November 2024

Purpose of Sampling				
CN ID	EPL ID	28/11/2024	29/11/2024	30/11/2024
<b>Parameter:</b>		<b>pH (pH unit)</b>		
SW55	55			
SW56	56			
SW57	57			
SW58a	61			
SW59	66			
<b>Parameter:</b>		<b>Electrical Conductivity (µS/cm)</b>		
SW55	55			
SW56	56			
SW57	57			
SW58a	61			
SW59	66			
<b>Parameter:</b>		<b>Suspended Solids (mg/L)</b>		
SW55	55			
SW56	56			
SW57	57			
SW58a	61			
SW59	66			
<b>Parameter:</b>		<b>Ammonia (mg/L)</b>		
SW55	55			
SW56	56			
SW57	57			
SW58a	61			
SW59	66			
<b>Parameter:</b>		<b>Biological Oxygen Demand (mg/L)</b>		
SW55	55			
SW56	56			
SW57	57			
SW58a	61			
SW59	66			

# Surface Water Results

## November 2024

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

	CN ID		SW55
	EPL ID		55
DATE			27/11/24
Parameter	Units	LOR	
Alkalinity (as calcium carbonate)	mg/L	1	245
Aluminium	mg/L	0.01	0.03
Ammonia	mg/L	0.05	<0.05
Copper	mg/L	0.001	0.026
Biological Oxygen Demand	mg/L	2	6
Electrical Conductivity	uS/cm	11	844
Iron	mg/L	0.05	0.80
Lead	mg/L	0.001	0.002
Nitrate as N	mg/L	0.05	<0.05
Organochlorine Pesticides	mg/L	0.0005	<0.0005
Organophosphate Pesticides	mg/L	0.0005	<0.0005
pH	pH Units	0.01	9.02
Total Suspended Solids	mg/L	5	44
Zinc	mg/L	0.005	0.027

# Surface Water Results

## November 2024



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

	CN ID		SW56	SW57	SW57	SW57	SW58a	SW59
	EPL ID		56	57	57	57	61	66
DATE			07/11/24	02/11/24	08/11/24	12/11/24	08/11/24	04/11/24
Parameter	Units	LOR						
Alkalinity (as calcium carbonate)	mg/L	1	102	84	80	72	103	157
Aluminium	mg/L	0.01	0.66	0.11	0.17	0.18	1.11	1.62
Ammonia	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	mg/L	0.001	0.002	0.001	0.002	<0.001	0.003	0.003
Barium	mg/L	0.001	0.121	0.030	0.029	0.028	0.055	0.038
Benzene	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BOD	mg/L	2	3	3	4	3	4	5
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001
Calcium	mg/L	1	69	11	10	10	25	16
Chloride	mg/L	1	268	37	34	32	121	135
Chromium (Hex)	mg/L	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	0.003	0.002
Cobalt	mg/L	0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.002
Copper	mg/L	0.001	0.002	<0.001	0.002	<0.001	0.004	0.002
Electrical Conductivity	uS/cm	11	1160	311	282	262	737	906
Ethyl benzene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Fluoride	mg/L	0.1	0.6	0.3	0.2	0.3	0.4	0.612
Iron	mg/L	0.05	0.69	0.39	0.37	0.36	1.67	2.10
Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.002
Magnesium	mg/L	1	20	6	6	6	14	20
Manganese	mg/L	0.001	0.271	0.023	0.049	0.030	0.092	0.167
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate as N	mg/L	0.01	<0.01	<0.01	0.01	0.01	0.22	0.01
Organochlorine Pesticides	mg/L	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
pH	pH Units	0.01	8.62	7.45	7.14	7.19	7.42	8.01

# Surface Water Results November 2024

	CN ID		SW56	SW57	SW57	SW57	SW58a	SW59
	EPL ID		56	57	57	57	61	66
DATE			07/11/24	02/11/24	08/11/24	12/11/24	08/11/24	04/11/24
Parameter	Units	LOR						
Polycyclic Aromatic Hydrocarbons	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Potassium	mg/L	1	12	3	3	3	7	4
Sodium	mg/L	1	127	43	43	40	106	150
Sulfate	mg/L	1	62	16	12	15	86	136
Total Suspended Solids	mg/L	5	37	<5	8	6	30	24
Toluene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Dissolved Solids	mg/L	11	596	187	165	176	473	592
Total Organic Carbon	mg/L	1	15	10	13	12	18	20
Total Petroleum Hydrocarbons	mg/L	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
Zinc	mg/L	0.005	<0.005	<0.005	0.011	<0.005	0.039	0.008

## Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

- Final data obtained: 4/12/24
- Date published: 17/11/24
- 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>