Surface Water Results
April 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 = 243 mm

Purpose of Sampling		SW57	SW55, SW56, SW57, SW58a & SW59	SW55, SW56, SW57, SW58a & SW59
CN ID	**EPL ID**	05/04/2024	06/04/2024	07/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	7.49	7.48
SW56	**56**	N/A	7.27	7.43
SW57	**57**	7.24	7.15	7.06
SW58a	**61**	N/A	7.28	7.14
SW59	**66**	N/A	7.40	7.38
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	375	400
SW56	**56**	N/A	434	558
SW57	**57**	273	191	173
SW58a	**61**	N/A	572	677
SW59	**66**	N/A	806	901
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	146	97
SW56	**56**	N/A	1160	902
SW57	**57**	12	90	121
SW58a	**61**	N/A	683	362
SW59	**66**	N/A	640	620
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	0.28	0.34
SW56	**56**	N/A	0.86	1.80
SW57	**57**	<0.05	<0.05	0.12
SW58a	**61**	N/A	0.20	0.17
SW59	**66**	N/A	<0.05	<0.05
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	7	9
SW56	**56**	N/A	8	13
SW57	**57**	4	5	5
SW58a	**61**	N/A	8	5
SW59	**66**	N/A	4	4

Surface Water Results
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Purpose of Sampling		SW55, SW56, SW57, SW58a & SW59	SW55, SW56, SW57, SW58a & SW59	SW55, SW57, SW58a & SW59
CN ID	**EPL ID**	08/04/2024	09/04/2024	10/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	7.13	7.07	6.92
SW56	**56**	7.21	7.31	N/A
SW57	**57**	6.70	6.92	6.99
SW58a	**61**	7.05	7.03	7.00
SW59	**66**	7.78	7.82	7.34
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	400	424	541
SW56	**56**	499	502	N/A
SW57	**57**	216	233	235
SW58a	**61**	649	663	646
SW59	**66**	907	920	866
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	43	46	46
SW56	**56**	388	373	N/A
SW57	**57**	76	56	34
SW58a	**61**	73	55	67
SW59	**66**	252	246	194
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	0.30	0.31	0.38
SW56	**56**	1.51	1.21	N/A
SW57	**57**	0.19	0.19	0.20
SW58a	**61**	0.09	0.08	<0.05
SW59	**66**	0.08	<0.05	<0.05
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	8	5	7
SW56	**56**	11	8	N/A
SW57	**57**	7	5	5
SW58a	**61**	4	3	4
SW59	**66**	5	4	5

Surface Water Results
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Purpose of Sampling		SW55, SW56, SW57, SW58a & SW59	SW55, SW57 & SW58a	SW55, SW57 & SW58a
CN ID	**EPL ID**	11/04/2024	12/04/2024	13/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	6.89	6.89	7.21
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.11	7.18	7.35
SW58a	**61**	6.97	7.10	7.27
SW59	**66**	7.52	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	540	553	545
SW56	**56**	N/A	N/A	N/A
SW57	**57**	234	236	239
SW58a	**61**	646	672	584
SW59	**66**	845	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	50	38	32
SW56	**56**	N/A	N/A	N/A
SW57	**57**	28	19	20
SW58a	**61**	52	128	138
SW59	**66**	236	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	0.39	0.40	0.37
SW56	**56**	N/A	N/A	N/A
SW57	**57**	0.17	0.18	0.17
SW58a	**61**	<0.05	<0.05	<0.05
SW59	**66**	<0.05	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	7	10	6
SW56	**56**	N/A	N/A	N/A
SW57	**57**	4	4	4
SW58a	**61**	3	4	2
SW59	**66**	3	N/A	N/A

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Purpose of Sampling		SW55, SW57 & SW58a	SW55, SW57, SW58a & SW59	SW55, SW57, SW58a & SW59
CN ID	**EPL ID**	14/04/2024	15/04/2024	16/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	7.02	7.26	7.00
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.22	7.33	7.08
SW58a	**61**	7.17	7.26	7.08
SW59	**66**	N/A	7.21	7.05
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	545	546	552
SW56	**56**	N/A	N/A	N/A
SW57	**57**	240	241	246
SW58a	**61**	615	668	723
SW59	**66**	N/A	749	770
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	23	14	6
SW56	**56**	N/A	N/A	N/A
SW57	**57**	14	20	14
SW58a	**61**	181	171	167
SW59	**66**	N/A	237	286
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	0.31	0.14	0.10
SW56	**56**	N/A	N/A	N/A
SW57	**57**	0.10	0.08	0.09
SW58a	**61**	<0.05	<0.05	<0.05
SW59	**66**	N/A	0.07	0.09
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	6	7	8
SW56	**56**	N/A	N/A	N/A
SW57	**57**	4	6	3
SW58a	**61**	<2	<2	<2
SW59	**66**	N/A	2	2

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Purpose of Sampling		SW55, SW57, SW58a & SW59	SW55, SW57, SW58a & SW59	SW55, SW57, SW58a & SW59
CN ID	**EPL ID**	17/04/2024	18/04/2024	19/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	7.01	7.04	6.71
SW56	**56**	N/A	N/A	N/A
SW57	**57**	7.22	7.30	7.12
SW58a	**61**	7.15	7.43	7.36
SW59	**66**	7.09	7.25	7.25
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	557	550	577
SW56	**56**	N/A	N/A	N/A
SW57	**57**	252	247	248
SW58a	**61**	772	583	600
SW59	**66**	794	806	845
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	28	19	16
SW56	**56**	N/A	N/A	N/A
SW57	**57**	10	10	6
SW58a	**61**	135	123	52
SW59	**66**	238	679	162
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	<0.05	0.12	0.34
SW56	**56**	N/A	N/A	N/A
SW57	**57**	0.13	0.17	0.11
SW58a	**61**	<0.05	<0.05	<0.05
SW59	**66**	0.10	0.12	0.11
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	8	6	6
SW56	**56**	N/A	N/A	N/A
SW57	**57**	3	2	3
SW58a	**61**	<2	<2	3
SW59	**66**	2	<2	2

Surface Water Results
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Purpose of Sampling		SW55, SW57, SW58a & SW59	SW55, SW56, SW57, SW58a & SW59	SW55, SW56, SW57, SW58a & SW59
CN ID	**EPL ID**	20/04/2024	21/04/2024	22/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	6.99	7.66	7.28
SW56	**56**	N/A	7.11	7.26
SW57	**57**	7.27	7.42	7.10
SW58a	**61**	7.34	7.27	7.26
SW59	**66**	7.28	7.33	6.99
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	600	348	381
SW56	**56**	N/A	473	430
SW57	**57**	232	174	209
SW58a	**61**	488	485	478
SW59	**66**	805	592	277
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	67	186	133
SW56	**56**	N/A	496	706
SW57	**57**	33	48	91
SW58a	**61**	88	183	470
SW59	**66**	498	272	2090
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	0.23	0.27	0.07
SW56	**56**	N/A	1.55	1.26
SW57	**57**	<0.05	0.05	0.05
SW58a	**61**	<0.05	0.54	0.44
SW59	**66**	<0.05	<0.05	0.05
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	10	5	6
SW56	**56**	N/A	6	6
SW57	**57**	4	2	2
SW58a	**61**	2	4	4
SW59	**66**	<2	3	2

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Purpose of Sampling		SW55, SW56, SW57, SW58a & SW59	SW56, SW57, SW58a & SW59	SW56, SW57, SW58a & SW59
CN ID	**EPL ID**	23/04/2024	24/04/2024	25/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	7.19	N/A	N/A
SW56	**56**	7.17	7.39	7.68
SW57	**57**	6.99	7.16	7.32
SW58a	**61**	7.25	7.12	7.19
SW59	**66**	7.03	7.05	6.40
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	395	N/A	N/A
SW56	**56**	440	434	451
SW57	**57**	195	215	228
SW58a	**61**	448	497	503
SW59	**66**	311	331	406
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	139	N/A	N/A
SW56	**56**	606	575	465
SW57	**57**	111	85	87
SW58a	**61**	361	556	1320
SW59	**66**	1930	1660	696
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	0.26	N/A	N/A
SW56	**56**	1.61	1.43	1.09
SW57	**57**	0.12	0.07	0.13
SW58a	**61**	0.33	0.07	0.08
SW59	**66**	<0.05	<0.05	<0.05
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	4	N/A	N/A
SW56	**56**	5	4	13
SW57	**57**	3	4	5
SW58a	**61**	3	3	3
SW59	**66**	3	2	2

Surface Water Results
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Purpose of Sampling		SW56, SW57, SW58a & SW59	SW56, SW57, SW58a & SW59	SW56, SW57, SW58a & SW59
CN ID	**EPL ID**	26/04/2024	27/04/2024	28/04/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	7.14	7.11	7.61
SW57	**57**	7.10	7.14	7.42
SW58a	**61**	7.05	7.07	7.28
SW59	**66**	6.98	7.06	7.12
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	454	450	450
SW57	**57**	230	231	232
SW58a	**61**	481	497	547
SW59	**66**	408	542	592
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	414	391	356
SW57	**57**	52	31	26
SW58a	**61**	678	450	478
SW59	**66**	1010	554	539
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	1.49	1.13	1.11
SW57	**57**	0.05	<0.05	<0.05
SW58a	**61**	<0.05	<0.05	<0.05
SW59	**66**	<0.05	0.06	0.07
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	4	20	17
SW57	**57**	4	5	3
SW58a	**61**	2	2	<2
SW59	**66**	<2	<2	2

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Purpose of Sampling		SW56, SW57, SW58a & SW59	SW56, SW57, SW58a & SW59	
CN ID	**EPL ID**	29/04/2024	30/04/2024	
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	
SW56	**56**	7.19	7.83	
SW57	**57**	7.20	7.27	
SW58a	**61**	7.17	7.23	
SW59	**66**	7.14	7.21	
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	
SW56	**56**	451	451	
SW57	**57**	237	237	
SW58a	**61**	602	642	
SW59	**66**	647	683	
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	
SW56	**56**	305	271	
SW57	**57**	32	30	
SW58a	**61**	462	371	
SW59	**66**	486	395	
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	
SW56	**56**	1.52	0.87	
SW57	**57**	0.06	0.10	
SW58a	**61**	<0.05	<0.05	
SW59	**66**	0.08	0.11	
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	
SW56	**56**	5	14	
SW57	**57**	3	6	
SW58a	**61**	2	6	
SW59	**66**	2	5	

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

	CN ID		SW55	SW56	SW56	SW57	SW58a	SW59
	EPL ID		55	56	56	57	61	66
DATE			6/04/24	6/04/24	21/04/24	5/04/24	6/04/24	6/04/24
Parameter	Units	LOR						
Alkalinity (as calcium carbonate)	mg/L	1	76	55	72	76	64	103
Aluminium	mg/L	0.01	2.97	17.4	4.63	0.15	12.9	12.4
Ammonia	mg/L	0.05	0.28	0.86	1.55	<0.05	0.20	0.02
Arsenic	mg/L	0.001	0.004	0.008	0.005	<0.001	0.008	0.010
Barium	mg/L	0.001	0.054	0.166	0.085	0.025	0.133	0.120
Benzene	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BOD	mg/L	2	7	8	6	4	8	4
Cadmium	mg/L	0.0001	0.0002	0.0002	0.0001	<0.0001	0.0003	0.0002
Calcium	mg/L	1	20	14	18	6	14	11
Chloride	mg/L	1	35	56	68	34	103	128
Chromium (Hex)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Total)	mg/L	0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	mg/L	0.001	0.003	0.012	0.006	<0.001	0.010	0.015
Copper	mg/L	0.001	0.012	0.042	0.017	<0.001	0.028	0.026
Electrical Conductivity	uS/cm	10	375	434	473	273	572	806
Ethyl benzene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Fluoride	mg/L	0.1	0.4	0.3	0.3	0.3	0.4	0.5
Iron	mg/L	0.05	3.36	19.6	4.79	0.67	15.3	16.9
Lead	mg/L	0.001	0.011	0.050	0.021	<0.001	0.029	0.020
Magnesium	mg/L	1	8	811	15	4	11	15
Manganese	mg/L	0.001	0.161	0.500	0.335	0.131	0.390	0.686
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate as N	mg/L	0.01	0.49	2.74	0.37	<0.05	1.07	0.06
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	7.49	7.27	7.11	7.24	7.28	7.40
Polycyclic Aromatic Hydrocarbons	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.005	<0.005
Potassium	mg/L	1	15	8	8	7	7	5
Sodium	mg/L	1	35	55	54	42	81	134
Sulfate	mg/L	1	52	52	51	3	77	129
Total Suspended Solids	mg/L	5	146	1160	496	12	683	640

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Toluene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Dissolved Solids	mg/L	10	320	737	440	169	697	842
Total Organic Carbon	mg/L	1	21	18	11	11	14	14
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	0.077	0.165	0.070	<0.005	0.115	0.101

Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Final data obtained: 6/05/24
Date published: 15/05/24

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