Surface Water Results September 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 = 64.6mm

Purpose of Sampling				
CN ID	**EPL ID**	1/09/2024	2/09/2024	3/09/2024
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	SW56 & SW58A
CN ID		4/09/2024	5/09/2024	6/09/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	7.58	7.73	7.82
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	7.43	7.43
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	837	836	841
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	983	854
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	28	22	26
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	15	40
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	<0.05	0.05	0.05
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	0.05	<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**	4	4	3
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	N/A	3	4
SW59	**66**	N/A	N/A	N/A

Surface Water Results September 2024

Purpose of Sampling		SW56 & SW58A	SW56 & SW58A	SW56 & SW58A
CN ID		7/09/2024	8/09/2024	9/09/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	7.69	7.73	7.75
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	7.33	7.35	7.51
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	836	837	838
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	846	849	779
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	42	14	14
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	39	22	28
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	0.07	0.09	<0.05
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	<0.05	<0.05	<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**	3	3	3
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	SW56 & SW58A	SW56 & SW58A
CN ID		10/09/2024	11/09/2024	12/09/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	7.39	7.22	7.30
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	7.34	7.46	7.56
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	865	860	904
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	877	845	888
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	19	12	19
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	11	14	19
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	0.25	0.30	0.64
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	0.13	0.10	0.28
SW59	**66**	N/A	N/A	N/A
Parameter:			**Biological Oxygen Demand (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	4	3	4
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	<27	3	3
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW56 &SW58A		
CN ID		13/09/2024	14/09/2024	15/09/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	7.35	N/A	N/A
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	7.54	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**	896	N/A	N/A
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	893	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**	75	N/A	N/A
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	29	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**	0.56	N/A	N/A
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	0.27	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**	5	N/A	N/A
SW57	**57**	N/A	N/A	N/A
SW58a	**61**	3	N/A	N/A
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling				
CN ID	**EPL ID**	16/09/2024	17/09/2024	18/09/2024
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**	19/09/2024	20/09/2024	21/09/2024
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**	22/09/2024	23/09/2024	24/09/2024
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		SW57 & SW58A
CN ID	**EPL ID**	25/09/2024	26/09/2024	27/09/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	7.98	N/A	N/A
SW57	**57**	N/A	N/A	7.26
SW58a	**61**	N/A	N/A	7.22
SW59	**66**	N/A	N/A	N/A
Parameter:			**Electrical Conductivity (µS/cm)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	982	N/A	N/A
SW57	**57**	N/A	N/A	361
SW58a	**61**	N/A	N/A	327
SW59	**66**	N/A	N/A	N/A
Parameter:			**Suspended Solids (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	14	N/A	N/A
SW57	**57**	N/A	N/A	7
SW58a	**61**	N/A	N/A	45
SW59	**66**	N/A	N/A	N/A
Parameter:			**Ammonia (mg/L)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	0.64	N/A	N/A
SW57	**57**	N/A	N/A	0.07
SW58a	**61**	N/A	N/A	<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	N/A	N/A
SW57	**57**	N/A	N/A	3
SW58a	**61**	N/A	N/A	3
SW59	**66**	N/A	N/A	N/A

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Purpose of Sampling		SW57 & SW58A	SW57 & SW58A	SW56, SW57& SW58A
CN ID	**EPL ID**	28/09/2024	29/09/2024	30/09/2024
Parameter:			**pH (pH unit)**	
SW55	**55**	N/A	N/A	N/A
SW56	**56**	N/A	N/A	8.05
SW57	**57**	7.72	7.50	7.50
SW58a	**61**	7.35	7.35	7.42
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	931
SW57	**57**	354	347	344
SW58a	**61**	359	362	317
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	16
SW57	**57**	7	5	<5
SW58a	**61**	16	43	9
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	0.44
SW57	**57**	<0.05	<0.05	<0.05
SW58a	**61**	<0.05	<0.05	<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**	N/A	N/A	3
SW57	**57**	4	3	4
SW58a	**61**	2	3	2
SW59	**66**	N/A	N/A	N/A

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

	CN ID		SW55	SW59
	EPL ID		55	59
DATE			**30/09/24**	**30/09/24**
Parameter	**Units**	**LOR**		
Alkalinity (as calcium carbonate)	mg/L	1	182	119
Aluminium	mg/L	0.01	2.23	3.43
Ammonia	mg/L	0.05	0.43	0.19
Copper	mg/L	0.001	0.004	0.006
Biological Oxygen Demand	mg/L	2	5	3
Electrical Conductivity	uS/cm	10	737	769
Iron	mg/L	0.05	2.91	4.29
Lead	mg/L	0.001	0.006	0.007
Nitrate as N	mg/L	0.05	0.08	0.33
Organochlorine Pesticides	mg/L	0.0005	<0.0005	<0.0005
Organophosphate Pesticides	mg/L	0.0005	<0.0005	<0.0005
pH	pH Units	0.01	7.27	7.78
Total Suspended Solids	mg/L	5	64	170
Zinc	mg/L	0.005	0.044	0.026

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

	CN ID		SW56	SW56	SW56	SW57	SW58a	SW58a
	EPL ID		56	56	56	57	61	61
DATE			04/09/24	25/09/24	30/09/24	27/09/24	5/09/24	27/09/24
Parameter	**Units**	**LOR**						
Alkalinity (as calcium carbonate)	mg/L	1	117	125	119	93	171	54
Aluminium	mg/L	0.01	2.22	0.40	0.15	0.29	0.39	2.11
Ammonia	mg/L	0.05	<0.05	0.64	0.44	0.07	<0.05	<0.05
Arsenic	mg/L	0.001	0.002	0.002	0.001	0.002	0.001	0.003
Barium	mg/L	0.001	0.089	0.107	0.111	0.013	0.064	0.046
Benzene	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BOD	mg/L	2	4	<2	3	3	<2	3
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium	mg/L	1	53	64	60	13	40	15
Chloride	mg/L	1	138	194	182	37	160	48
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	0.004	0.003	<0.001	<0.001	0.002
Copper	mg/L	0.001	0.006	0.002	0.001	<0.001	0.002	0.006
Electrical Conductivity	uS/cm	10	837	982	931	361	979	327
Ethyl benzene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Fluoride	mg/L	0.1	0.5	0.4	0.4	0.3	0.5	0.2
Iron	mg/L	0.05	2.02	0.63	0.72	0.62	0.91	2.16
Lead	mg/L	0.001	0.004	<0.001	<0.001	<0.001	<0.001	0.003
Magnesium	mg/L	1	16	19	18	8	27	8
Manganese	mg/L	0.001	0.519	1.17	1.29	0.084	0.210	0.384
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate as N	mg/L	0.01	5.77	4.06	3.63	<0.01	0.13	0.79
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	7.58	7.98	8.05	7.26	7.41	7.22
Polycyclic Aromatic Hydrocarbons	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Potassium	mg/L	1	11	12	11	4	10	5
Sodium	mg/L	1	87	104	88	51	127	44
Sulfate	mg/L	1	53	62	62	28	72	24

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	CN ID		SW56	SW56	SW56	SW57	SW58a	SW58a
	EPL ID		56	56	56	57	61	61
DATE			04/09/24	25/09/24	30/09/24	27/09/24	5/09/24	27/09/24
Parameter	**Units**	**LOR**						
Total Suspended Solids	mg/L	5	28	14	16	7	15	45
Toluene	mg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Dissolved Solids	mg/L	10	472	580	534	224	513	218
Total Organic Carbon	mg/L	1	15	20	20	16	16	10
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
Zinc	mg/L	0.005	0.019	0.005	0.007	0.008	<0.005	0.050

Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

- Final data obtained: 9/10/24
- Date published: 15/10/24

- 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