

Surface Water Results

January 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 =26.8

| Purpose of Sampling | | SW55 | SW55 | SW55 |
|---------------------|--------|--|-----------|-----------|
| CN ID | EPL ID | 1/01/2024 | 2/01/2024 | 4/01/2024 |
| Parameter: | | pH (pH unit) | | |
| SW55 | 55 | N/A | N/A | 8.32 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 7.28 | 7.60 | 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 | 630 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 273 | 274 | 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 | 59 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 20 | 20 | 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 | <0.05 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 0.15 | <0.05 | 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 | 6 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | <2 | 2 | N/A |
| SW58a | 61 | N/A | N/A | N/A |
| SW59 | 66 | N/A | N/A | N/A |

Surface Water Results

January 2024

| Purpose of Sampling | | SW55, SW57 & SW58a | SW55 & SW58a | SW55 & SW58a |
|---------------------|----|--|--------------|--------------|
| CN ID | | 5/01/2024 | 6/01/2024 | 7/01/2024 |
| Parameter: | | pH (pH unit) | | |
| SW55 | 55 | 7.55 | 7.85 | 7.79 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 7.65 | N/A | N/A |
| SW58a | 61 | 7.60 | 7.55 | 7.72 |
| SW59 | 66 | N/A | N/A | N/A |
| Parameter: | | Electrical Conductivity (µS/cm) | | |
| SW55 | 55 | 638 | 671 | 717 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 275 | N/A | N/A |
| SW58a | 61 | 577 | 641 | 648 |
| SW59 | 66 | N/A | N/A | N/A |
| Parameter: | | Suspended Solids (mg/L) | | |
| SW55 | 55 | 78 | 141 | 232 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 43 | N/A | N/A |
| SW58a | 61 | 13 | 25 | 16 |
| SW59 | 66 | N/A | N/A | N/A |
| Parameter: | | Ammonia (mg/L) | | |
| SW55 | 55 | 0.74 | 0.31 | 2.35 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 0.05 | 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 | 7 | 8 | 13 |
| SW56 | 56 | N/A | N/A | N/A |
| SW57 | 57 | 4 | N/A | N/A |
| SW58a | 61 | 3 | <2 | 4 |
| SW59 | 66 | N/A | N/A | N/A |

Surface Water Results January 2024

Environment Protection Licence 5897 - Condition M2 – Special Frequency (SF) 1 and 2 Sampling

| | CN ID | | SW56 | SW59 |
|-----------------------------------|----------|--------|----------|----------|
| | EPL ID | | | |
| DATE | | | 31/01/24 | 31/01/24 |
| Parameter | Units | LOR | | |
| Alkalinity (as calcium carbonate) | mg/L | 1 | 152 | 253 |
| Aluminium | mg/L | 0.01 | 4.80 | 1.37 |
| Ammonia | mg/L | 0.05 | 1.19 | <0.05 |
| Copper | mg/L | 0.001 | 0.006 | 0.004 |
| Biological Oxygen Demand | mg/L | 2 | 6 | 6 |
| Electrical Conductivity | uS/cm | 10 | 1310 | 1590 |
| Iron | mg/L | 0.05 | 4.49 | 1.84 |
| Lead | mg/L | 0.001 | 0.005 | 0.002 |
| Nitrate as N | mg/L | 0.05 | <0.05 | <0.05 |
| 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 | 7.83 | 8.88 |
| Total Suspended Solids | mg/L | 5 | 178 | 63 |
| Zinc | mg/L | 0.005 | 0.018 | 0.008 |

Surface Water Results January 2024

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

| | CN ID | | SW55 | SW57 | SW58a |
|-----------------------------------|----------|--------|----------|----------|----------|
| | EPL ID | | | | |
| DATE | | | 04/01/24 | 05/01/24 | 05/01/24 |
| Parameter | Units | LOR | | | |
| Alkalinity (as calcium carbonate) | mg/L | 1 | 175 | 76 | 152 |
| Aluminium | mg/L | 0.01 | 0.39 | 1.71 | 0.40 |
| Ammonia | mg/L | 0.05 | <0.05 | 0.05 | <0.05 |
| Arsenic | mg/L | 0.001 | 0.005 | 0.003 | 0.004 |
| Barium | mg/L | 0.001 | 0.026 | 0.042 | 0.056 |
| Benzene | mg/L | 0.001 | <0.001 | <0.001 | <0.001 |
| BOD | mg/L | 2 | 6 | 4 | 3 |
| Cadmium | mg/L | 0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Calcium | mg/L | 1 | 32 | 9 | 26 |
| Chloride | mg/L | 1 | 66 | 32 | 61 |
| Chromium (Hex) | mg/L | 0.01 | <0.01 | <0.01 | <0.01 |
| Chromium (Total) | mg/L | 0.001 | <0.001 | 0.002 | <0.001 |
| Cobalt | mg/L | 0.001 | <0.001 | 0.001 | <0.001 |
| Copper | mg/L | 0.001 | 0.001 | 0.002 | 0.002 |
| Electrical Conductivity | uS/cm | 10 | 630 | 275 | 577 |
| Ethyl benzene | mg/L | 0.002 | <0.002 | <0.002 | <0.002 |
| Fluoride | mg/L | 0.1 | 0.5 | 0.4 | 0.4 |
| Iron | mg/L | 0.05 | 0.47 | 3.35 | 0.57 |
| Lead | mg/L | 0.001 | 0.002 | 0.002 | <0.001 |
| Magnesium | mg/L | 1 | 15 | 5 | 14 |
| Manganese | mg/L | 0.001 | 0.211 | 0.584 | 0.083 |
| Mercury | mg/L | 0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Nitrate as N | mg/L | 0.01 | <0.05 | <0.05 | 0.09 |
| Organochlorine Pesticides | mg/L | 0.0005 | <0.0005 | <0.0005 | <0.0005 |
| Organophosphate Pesticides | mg/L | 0.0005 | <0.0005 | <0.0005 | <0.0005 |
| pH | pH Units | 0.01 | 8.32 | 7.65 | 7.60 |
| Polycyclic Aromatic Hydrocarbons | mg/L | 0.0005 | <0.005 | <0.005 | <0.005 |

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| | CN ID | | SW55 | SW57 | SW58a |
|------------------------------|--------|-------|----------|----------|----------|
| | EPL ID | | | | |
| DATE | | | 04/01/24 | 05/01/24 | 05/01/24 |
| Parameter | Units | LOR | | | |
| Potassium | mg/L | 1 | 18 | 9 | 15 |
| Sodium | mg/L | 1 | 80 | 40 | 71 |
| Sulfate | mg/L | 1 | 36 | 7 | 34 |
| Total Suspended Solids | mg/L | 5 | 59 | 43 | 13 |
| Toluene | mg/L | 0.002 | <0.002 | <0.002 | <0.002 |
| Total Dissolved Solids | mg/L | 10 | 373 | 189 | 344 |
| Total Organic Carbon | mg/L | 1 | 19 | 14 | 18 |
| Total Petroleum Hydrocarbons | mg/L | 0.05 | <0.05 | <0.05 | <0.05 |
| Total Phenolics | mg/L | 0.05 | <0.05 | <0.05 | <0.05 |
| Zinc | mg/L | 0.005 | 0.009 | 0.046 | 0.006 |

Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Final data obtained: 09/01/2024

Date published: 28/02/2024

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>