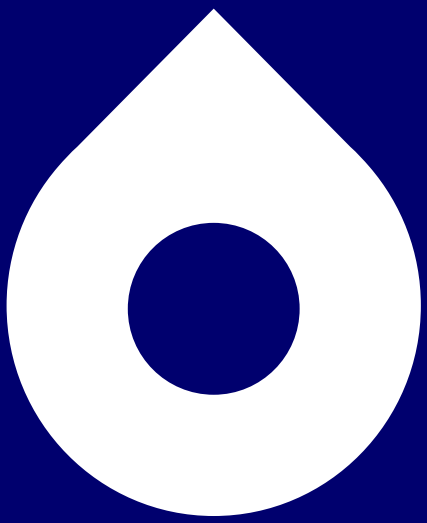
Mill Stream Environment Management Plan (EMP) Annual Compliance Report

Report Number 1

Period 7 June 2024 to 17 January 2025

In Compliance with Authorisation Number 01/2024



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12/2024

Sydney WATER



Acknowledgement of Country

Sydney Water respectfully acknowledges the Traditional Custodians of the land and waters on which we work, live and learn.

We pay respect to Elders past and present.

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1. Executive Summary

Sydney Water received a new Authorisation on 7 June 2024 to operate Emergency Relief Structures (ERSs) located on Sydney Airport land that discharge to Mill Stream. The previous Authorisation expired on 31 March 2024. This report provides the first update on the progress Sydney Water has made regarding the conditions within the Authorisation and Environment Management Plan (EMP) actions during the period from 7 June 2024 to 17 January 2025. The report also includes relevant data and information from the period between 1 April 2024 and 6 June 2024.

Sydney Water has collaborated with key stakeholders, including Sydney Airport, Bayside Council, the NSW Environment Protection Authority (EPA), Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA), Port Authority of NSW, and others, on the progress of the EMP actions. As a result, Sydney Water has largely been compliant with the authorisation, completing several actions and maintaining compliance with the ongoing requirements. However, some timeframes and deliverables have experienced delays, and critical works have been postponed. Key projects that are delayed and/or will not be finalised during the current period include desilting the SWSOOS2, relocating the grit pits, and progressing the Hydraulic Improvement Plan (HIP). These activities are prioritised for delivery during this authorisation period, with the desilting of the SWSOOS2 expected to be completed in 2029, and the HIP progression contingent on a cost-sharing agreement with the members of the Hydraulic Improvement Leadership Group.

All monthly and quarterly reports were submitted to the Airport Environment Officer meeting the twenty-one-day timeframe except the quarterly report for 1 July 2024 to 30 September 2024 was not sent to Sydney Airport within the twenty-one-day timeframe and was sent on 3 December 2024.

Sydney Water has partially met the requirement of completing 10 cleaning shifts per cycle. This shortfall is due to the prioritisation of airport operations over cleaning activities, leading to the cancellation of scheduled cleaning tasks by Sydney Airport. Sydney Water will continue collaborating with Sydney Airport Operations team to plan desilting works, aiming to fulfil the requirement of 10 cleaning shifts per cycle.

At the start of the authorisation period, Mill Stream overflows averaged 19 events per year and 3,094 ML in volume. By the end, improvements reduced this to 13 events and 1,238 ML annually. These gains came from reconfiguring pump settings, desilting SWSOOS1, and balancing flow between SWSOOS barrels.

From June 2024 to January 2025, recorded Mill Stream overflow activity showed lower discharge volumes, but more events compared to modelled performance. The Mill Stream ERS discharged 1,061 ML of diluted wastewater from 15 events. Severe rainfall in June 2024 led to overflows due to stormwater overwhelming the system, with no dry weather discharges. Sydney Water conducted eight clean-ups, removing 146m3 of debris from Mill Stream and Foreshore Beach.

2. Introduction

Context

Sydney Water owns and operates the Malabar Sewage Treatment System, servicing nearly 1.8 million people. The system carries wastewater from as far as Campbelltown in the southwest, Fairfield and Hoxton Park in the West, Concord in the North and the southern extents of the Sydney CBD to the Malabar Water Resource Recovery Facility (WRRF) for treatment prior to discharge from deep ocean outfalls.

The trunk main of the Malabar System is the South-Western Sydney Ocean Outfall Sewer (SWSOOS); a multi-barrelled carrier that transfers wastewater from Arncliffe eastward across the Airport site to the Malabar WRRF at Malabar Headland. The original pipeline (called SWSOOS No.1) lies to the north. The SWSOOS was amplified with the construction of two pipelines (called SWSOOS No.2) to the south.

The SWSOOS includes eight Emergency Relief Structures (ERSs) located on the Kingsford Smith Airport, collectively known as the Mill Stream ERS. Additionally, there is an ERS on a smaller main entering the trunk sewer from the north. These ERSs are crucial for the proper operation of the wastewater network. Periodically, the ERSs discharge wastewater that has backed up in the sewer and releases into the Mill Stream seaward of the saltwater exclusion weir. This weir separates the tidally flushed waters of the Mill Stream and Botany Bay from the impounded freshwaters of the Engine Pond. The Mill Stream flows into Botany Bay near Foreshores Beach.

ERSs are vital components of any wastewater network and are included in all sewer systems. They release excess flows from the sewer to prevent surcharging through surface openings into inhabited areas, (people's homes), and to avoid excessive pressure build-up within the sewer. These structures and their discharges are commonly referred to as overflows. The released flows are directed to stormwater systems, streams, and estuaries, and in some cases, to structures designed for temporary storage. ERSs activate in response to rainfall, when the volume of stormwater entering the sewer exceeds its capacity.

The Mill Stream ERS discharge is located on and potentially impacts air, land and waters of the Kingsford Smith Airport site. Given this, it requires authorisation (Licencing) under federal ***Airport Act*** and Airport Environment Protection Regulations. In addition to federal regulation, the Mill Stream ERSs are regulated under the ***Protection of the Environment Operations Act 1997*** (POEO Act). Wastewater reticulation systems and wastewater overflow structures are included in the definition of Sewage Treatment, which is a Scheduled Activity. The Mill Stream ERS is included under the Malabar wastewater system's Environment Protection Licence (EPL 372) overseen by the NSW Environment Protection Authority (EPA).

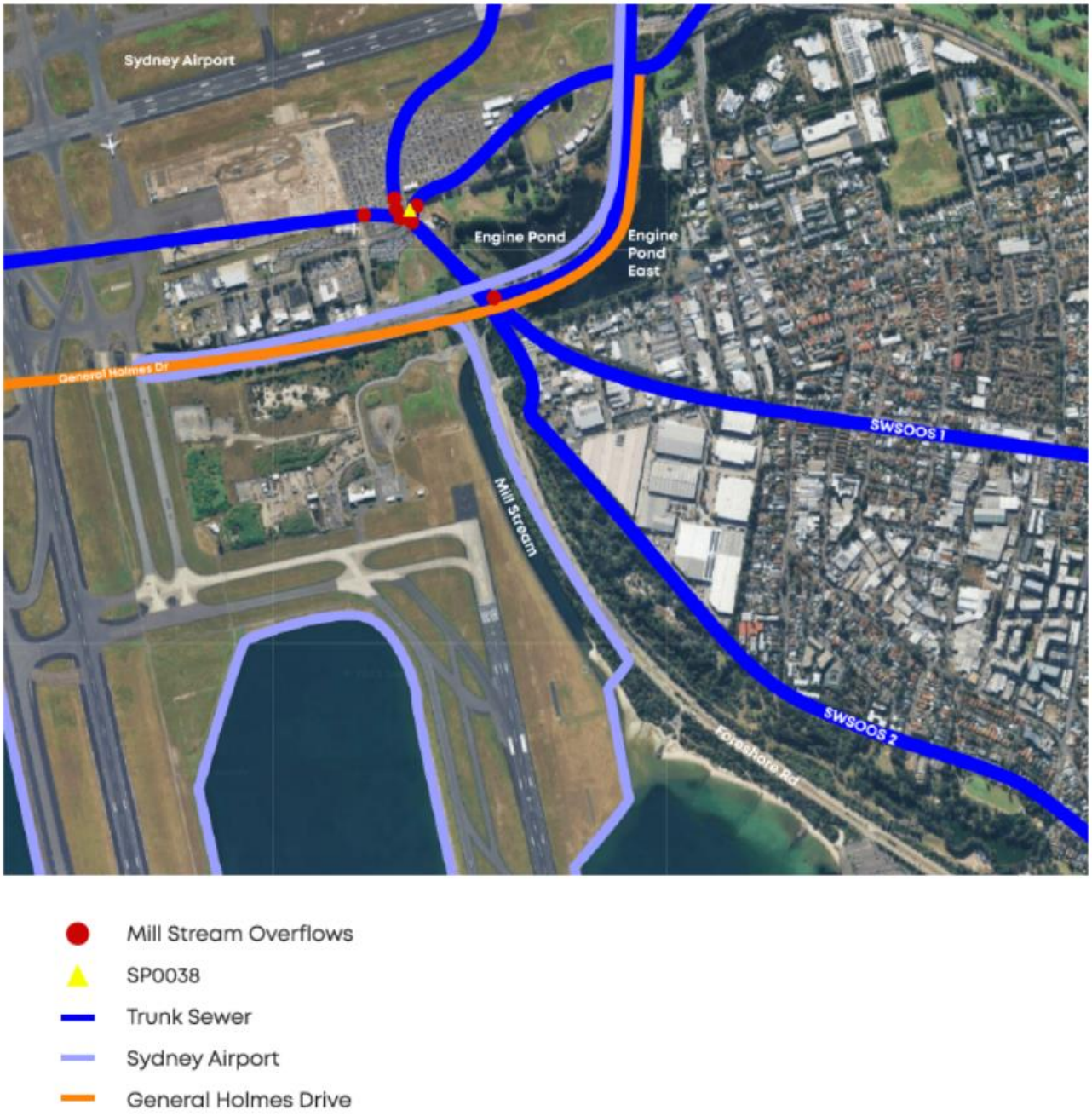


Figure 2-1: Location of emergency relief structures discharging to the Mill Stream

Authorisation 2024 to 2027

On 7 June 2024, DITRDCA issued Sydney Water a conditional Authorisation under the Airports (Environment Protection) Regulations 1997 (AEPR) to periodically discharge untreated wastewater from the SWSOOS ERS overflow points to the Mill Stream. The period of the Authorisation is from 7 June 2024 to 31 March 2027. Discharges are to be in accordance with the Environment Management Plan (EMP) dated 7 May 2024, submitted by Sydney Water in support of its application for Authorisation and the conditions the DITRDCA included in Appendix A of the Authorisation.

Reporting (EMP Objective 7)

This document is Environmental Management Plan (EMP) Compliance Report Number 1, prepared to satisfy the requirements of Operating Condition 2 under Authorisation Number 01/2024. It provides an update on the progress of Sydney Water's activities in accordance with the Authorisation for the period from 7 June 2024 to 17 January 2025.

The report addresses the matters in regulation 5.17(a) to (c) of the AEPR as well as Operating Conditions of the Authorisation (

Table 2-1: Authorisation and EMP Compliance Report requirements

Legislation	Clause no.	Clause	See section
Airports (Environment Protection) Regulations 1997	5.17	The holder of an authorisation granted for a period longer than 1 year must give the Airport Environment Officer who granted the authorisation (or that person's successor) a report for each year that the authorisation is in force, setting out:	2.2
		details of the holder's performance in giving effect to the holder's plan under sub-regulation 5.07(3)1; and	3
		details of progress (if any) made in reducing the generation of pollution or noise that is generated in excess of the approved limit, under the Schedules, for pollution or noise of that kind; and	3.5
		any failure by the holder to comply with the terms and conditions (if any) of the authorisation.	3 & 4

Authorisation condition	Subject	Authorisation requirement	See section
2	Reporting	Sydney Water must submit to the AEO a comprehensive report on its compliance with the EMP (EMP Compliance Report) in accordance with the requirements of clauses 5.17(a) to (c) of the Regulations by the following dates, for the following time periods: (a) by 31 January 2025, covering the period from which the authorisation period begins to 17 January 2025;	All
3a (EMP Action 5.1)	Monitoring	Provide a report on the monthly frequency, duration and volume of all overflow events into Mill Stream.	3.5.1
3b	Monitoring	Provide a graph that includes monthly rainfall plots onto the Emergency Relief Structures (ERSs) gauge level to show baseline and overflow conditions and provide a written explanation of the conditions that led to each overflow event.	3.5.1
3c	Monitoring	Provide a graph with the total volume of overflows in ML per year since at least 2020.	3.5.1
3d (EMP Action 6.1)	Complaints management	Provide a summary of all environmental complaints received during the reporting period and provide evidence as to how each of the complaints has been addressed and resolved.	3.6.1

Authorisation condition	Subject	Authorisation requirement	See section
3e (EMP Action 1.1)	Overflow events	Detail the progress made in the reporting period towards the desilting of SWSOOS 2 referred to as Objective 1, Action 1.1 of the EMP.	3.1.1
3f (EMP Action 1.2)	Overflow events	Detail the progress made in the reporting period to source control implementation referred to as Objective 1, Action 1.2 of the EMP.	3.1.2
3g and 11 (EMP Action 1.3)	Overflow events	Report the dates of the eight grit pit maintenance cycles undertaken and provide tonnage removed per cycle, referred to as Objective 1, Action 1.3 of the EMP.	3.1.3
3h (EMP Action 1.4)	Overflow events	Detail the progress made in the reporting period to the Malabar Strategic Business Case (SBC) referred to as Objective 1, Action 1.4 of the EMP.	3.1.4
3i and 20 (EMP Action 1.5)	Overflow events	Detail the progress made in the reporting period to the Botany Low Level Carrier Rehabilitation referred to as Objective 1, Action 1.5 of the EMP.	3.1.5
3j and 17 (EMP Action 1.3 and 2.1)	Grit Pits	Detail the progress made in the reporting period to the feasibility assessment and relocation of the SWSOOS Grit Pits referred to as Objective 2, Action 2.1 of the EMP.	3.2
3k (EMP Objective 3)	Hydraulic Improvement Plan	Detail the progress made in the reporting period to the Hydraulic Improvement Plan referred to as Objective 3 of the EMP.	3.3
3l (EMP Action 4.2)	Protect the environment and public health	Detail the progress made in the reporting period to wastewater screening implementation referred to as Objective 4, Action 4.2 of the EMP.	3.4.2
3m (EMP Action 5.4)	Monitoring	Detail the progress made in the reporting period to further reduce the concentration of discharge and improve compliance with the Regulations, including the water pollution limits in Schedule 2 of the Regulations.	3.5.4
3n	Monitoring	Describe, and provide evidence, of Sydney Water's compliance with condition L7.1 (Hydraulic Sewer System Model) of the Malabar Wastewater System Environmental Protection Licence (No. 372, issued by the NSW EPA).	4.1
3o and 18	Bird Strike	Detail Sydney Water's progress on the implementation of bird strike mitigation measures implemented in accordance with condition (18) and provide justification for any delay in implementation of such measures.	4.2
3p (EMP Action 4.1)	Protect the environment and public health	Detail the volume of gross pollutants removed, syringe presence, photos, general observations, and water quality sampling results for overflow events and incidents of material harm.	3.4.1 Appendix 6

Authorisation condition	Subject	Authorisation requirement	See section
3q (EMP Action 5.4)	Monitoring	Detail evidence of improvement in the receiving environment in consideration of affected ecosystems and the health and wellbeing of the community (water quality, community expectations, beach suitability grade, odour, First Nations community values).	3.5.4
4	Monitoring	In the period between the commencement of the Authorisation and 17 January 2026, the total number of wet weather overflow events into Mill Stream must not exceed a modelled performance of: • 13 overflow events per year; and • an overflow volume of 1,238 ML per year as measured by the hydraulic sewer system model. Compliance with this condition is to be reported in the 31 January 2025 and 31 January 2026 EMP compliance reports.	4.3
6	Monitoring	In each annual EMP Compliance Report Sydney Water is to present any shortcomings in the achievement of proposed EMP targets and set out any corrective actions required to reduce modelled discharges to no more than the above limits by the required dates.	4.3
7-8	Reporting	Quarterly Reporting-Sydney Water must submit Quarterly Reports to the AEO within 21 days of the end of each quarter commencing with the report on the first quarter concluding on 30 September 2024.	3.7.1
9-10	Communication of compliance and compliance reporting	By 28 February 2025, Sydney Water must provide an annual update on the progress of the implementation of the EMP at a community meeting to be held locally (e.g. Botany Town Hall). Note – extension granted from 1 February 2025 By 28 February 2025, finalised copies of the Annual EMP Compliance Report must be provided to Bayside Council and published on the Sydney Water website.	4.4
12 (EMP Action 5.2)	Monitoring	Sydney Water must notify Sydney Airport Corporation Limited (Sydney Airport), Bayside Council and the AEO of any overflow event within 24 hours of Sydney Water becoming aware of the event.	3.5.2
13	Monitoring	Sydney Water must notify Sydney Airport, Bayside Council and the AEO of any incident of material harm within 24 hours of Sydney Water becoming aware of the event.	3.5.2
14	Performance and other conditions	Annual EMP Compliance Reports, Quarterly Reports, the bird strike risk assessment letter required under condition (18), the Water Quality Monitoring Report required under condition (21), and any other investigations undertaken for the duration of this Authorisation must be provided to Sydney Airport within 21 days of their finalisation.	4.5
15	Hydraulic Improvement Plan	Sydney Water must chair the Mill Stream Hydraulic Improvement Leadership Group (HILG) with representatives from Bayside Council, Sydney Airport, Department of Infrastructure, Transport, Regional Development, Communications and the Arts and the NSW Environment Protection Authority.	3.3

Authorisation condition	Subject	Authorisation requirement	See section
16	Performance and other conditions	In addition to Stakeholder Reference Group (SRG) meetings, Sydney Water must attend meetings with Bayside Council, all Sydney Airport Community Forum meetings, and Planning and Coordination Forum meetings to which it is invited, and provide an update to those forums on the progress of the implementation of the EMP.	4.6
19	Performance and other conditions	By 30 September 2024, Sydney Water must submit its pricing proposals to the New South Wales Independent Pricing and Regulatory Tribunal (IPART), including funding allocation and milestones for: a) the 2025-2030 Wet Weather Overflow Abatement (WWOA) program (source control works); and b) the planning and commencement of works for the preferred network augmentation option identified in the Malabar SBC; and c) provide evidence including funding allocation and milestones of the submission to the AEO within 21 days of the submission of the proposal to IPART.	4.7
20 (EMP Action 1.5)	Operational Works	By 31 December 2024 Sydney Water must complete all operational works for the Botany Low Level Carrier Rehabilitation project.	3.1.5

Table 2-2: EMP Actions

Objective	Action	Performance Indicator/s	See section
Objective 1 Increase capacity of the wastewater system to reduce frequency and volume of overflow	**Action 1.1** Desilt SWSOOS 2 - SP0038 to Malabar WRRF	Procurement and contract award to be completed by December 2024	3.1.1
	Action 1.2 Implement source control for the Malabar system to reduce wet weather inflows into the SWSOOS	Prospect, Greater Parramatta to Olympic Peninsula, Lower NGRS/Cooks and Lower Georges River catchment completed by June 2025 Completion of further WWOA stages as indicated in Appendix A and to be reported in Annual Compliance reports	3.1.2
	Action 1.3 Conduct Grit Pit Maintenance	Grit Pit Hardstand constructed November 2024 Achieve 8 maintenance cycles each 12-month period Increase tonnage removed per quarter	3.1.3
	Action 1.4 Implement Malabar Strategic Business Case (SBC) – network augmentation preferred option	Confirmation that Sydney Waters IPART pricing submission includes network augmentation funding allocation	3.1.4
	Action 1.5 Botany Low Level Carrier Rehabilitation	Completion of all operational works by December 2024 Provide increased storage when wastewater screens are operational	3.1.5
Objective 2 Feasibility of Grit Pit relocation	**Action 2.1** Conduct a feasibility assessment for the relocation of the SWSOOS Grit Pits	Report submitted to AEO by 30 June 2024 and present findings at the following SRG	3.2.1
Objective 3 Hydraulic Improvement Plan (HIP)	**Action 3.1** Chair Hydraulic Improvement Leadership Group (HILG)	Quarterly meetings conducted to support implementation and completion of Phase 2B and 3	3.3.1
	Action 3.2 Conduct HIP Phase 2B	Cost sharing agreement in place June 2024 Studies conducted and report submitted to AEO by February 2026 Progress of activities will be provided in Annual Compliance reports	3.3.2
Objective 4 Protect the environment and public health	**Action 4.1** Inspect Mill Stream and Foreshores Beach after all overflow events and remove gross pollutants	All inspections initiated correctly and adhere to Work Instruction – Mill Stream/Foreshore Beach wet weather clean-up Inspections within 2 days of a discharge event ceasing and next daylight low tide Volume of gross pollutants collected in m3/event AEO and Sydney Airport notified of all material harm incidents within one business day	3.4.1

Objective	Action	Performance Indicator/s	See section
	Action 4.2 Implement wastewater screening at Airport site	All works completed and screening implemented by December 2026 Completion of project stages as indicated in Appendix A and to be reported in Annual Compliance reports	3.4.2
	Action 4.3 Maintain permanent signage at Foreshore Beach	Permanent signage maintained at Foreshore Beach, all overflow inspections to include signage checks External review of public health content and language to be completed and implemented if required by October 2024	3.4.3
	Action 4.4 Ensure all maintenance personnel and contractors are aware of threatened species fact sheets	No impact to threatened bird species, fact sheet included in Work Instruction – Mill Stream/Foreshore Beach wet weather clean-up	3.4.4
	Action 4.5 Store gross pollutants appropriately during clean-ups	All waste correctly stored prior to disposal, evidenced by clean up photos and reports	3.4.5
	Action 4.6 Dispose of gross pollutants appropriately	All waste correctly disposed	3.4.6
Objective 5 Monitor wastewater system performance, odour and receiving waterway health	**Action 5.1** Conduct continuous overflow monitoring and routine monthly reporting	All monthly reports provided to AEO and Sydney Airport	3.5.1
	Action 5.2 Provide overflow alerts to AEO and Sydney Airport representatives	SMS overflow alerts are received for all overflows	3.5.2
	Action 5.3 Monitor the dry weather sewage capacity in the SWSOOS	Minimum wastewater level for a rolling 6-month period is maintained at 0.45m	3.5.3
	Action 5.4 Monitor water quality at Mill Stream	April 2024 – July 2025 Monitoring is completed and final report delivered July 2025, including recommendations for future monitoring options	3.5.4
	Action 5.5 Air quality monitoring (H2S) near discharge location	October 2024 – September 2025 Monitoring completed and results reported by September 2025	3.5.5

Objective	Action	Performance Indicator/s	See section
Objective 6 Conduct effective complaint management	**Action 6.1** Respond to and investigate all complaints regarding the Mill Stream ERS	Response provided to complainant within 2-5 working days Complaints recorded and included in annual report	3.6.1
Objective 7 Progress Reporting	**Action 7.1** Provide Quarterly Update Report	Quarterly report sent on 21 October.	3.7.1
	Action 7.2 Chair Quarterly Stakeholder Reference Group (SRG) meeting	SRG conducted within 4 weeks of the quarter ending	3.7.2
	Action 7.3 Provide Annual EMP Compliance Report	Annual Compliance Report submitted by 31 December for each year of the Authorisation	3.7.3

3. Environment Management Plan (EMP) 2024-2027

The EMP was prepared to support the application for a new Authorisation to operate the Mill Stream ERS, as required by Clause 5.07 of the Airports (Environment Protection) Regulations 1997. The EMP focuses on the near-term actions that are to be implemented during the operation of the ERS in the 2024 – 2027 Authorisation period. The EMP also covers longer-term strategic work currently being progressed for the improvement of the Mill Stream ERS and the Malabar wastewater system.

This report provides updates on all the actions detailed within objectives 1 to 6 of the EMP, these objectives are:

- **Objective 1** - Increase capacity of the wastewater system to reduce frequency and volume of overflows
- **Objective 2** - Feasibility of relocating the Grit Pit
- **Objective 3** - Hydraulic Improvement Plan (HIP)
- **Objective 4** - Protect the environment and public health
- **Objective 5** - Monitor wastewater system performance, odour and receiving waterway health
- **Objective 6** - Conduct effective complaint management
- **Objective 7** – Progress Reporting

EMP Objective 1 – Increase capacity of the wastewater system to reduce frequency and volume of overflow

The most effective way for Sydney Water to improve the Mill Stream ERS performance over time and comply with the requirements of AEPR is to increase the capacity of the wastewater system. The actions updated below will deliver greater capacity and reduced overflow volume and frequency, in particular; desilting, grit removal and reducing the ingress of stormwater into the wastewater system.

3.1.1. EMP Action 1.1 - Desilt SWSOOS 2 – SP0038 to Malabar WRRF (Condition 3e)

Sydney Water secured necessary funds and started the first package of works (Package A1), including desilting and inspecting the north cell of the tunnel, on 29 October 2024. Around 30-35 tons of silt have been removed, with works continuing into 2025.

Sydney Water has started planning works on package A2, which will include the desilting, and inspection works in the South Barrel. Package A2 also includes structural repair works of both the barrels between Cross Connection, 2 near the SP0038 building, and Hale Street, Botany. Once Package A2 is approved, Sydney Water will start background works on Package A3 to continue a rolling program of works.

Works in Package A2 are expected to start in March/April 2025 and finish in January 2026, subject to timely approvals and weather conditions.



Figure 3-1: Desilting SWSOOS2 Package A1



Figure 3-2: Site set-up for cross connection 2 desilting



Figure 3-3: Decanting wastewater before moving silt off-site

3.1.2. EMP Action 1.2 - Implement source control for the Malabar system to reduce wet weather inflows into the SWSOOS (Condition 3f)

Source control works seek to reduce stormwater inflow and infiltration into the wastewater system, resulting in a reduction of the volume and frequency of wet weather overflows at ERSs. Source control works are broken into three stages, each representing different types of work which are defined in Table 3-1. The different stages can be implemented concurrently, and not all stages are implemented in every catchment or work program.

Table 3-1 Source control stages

Source Control Stage	Definition
Stage 1 – Inflow management	Involves rectifying ERS by installing backflow prevention valves. These valves prevent stormwater from flowing into the wastewater system from the overflow discharge pipe.
Stage 2 – Infiltration management	Focuses on reducing infiltration through damaged pipes and maintenance holes. This stage targets assets that are in high infiltration areas. Rectification works include pipe lining, maintenance hole repairs and installation of anti-infiltration devices (rain stoppers) in maintenance holes that are at risk of stormwater ponding or overland stormwater flow and flooding.
Stage 3 – Private properties	Implementation of smoke testing and property inspections to identify stormwater connections and rectifying defective assets. Rectification works include repairing faulty overflow relief gullies and redirecting roof drainage connections from the sewer to the stormwater

Sydney Water is currently implementing a program of source control works, including a strategy for the Malabar system, as part of the Wet Weather Overflow Abatement (WWOA) program (Figure 3-4 & Figure 3-7). This includes prioritising work to specifically address the Mill Stream overflows (Figure 3-5 & Figure 3-6). Sydney Water also conducts source control works

as part of programs to address growth and the risks of internal (private property) surcharge. A significant portion of the current and proposed works within the Malabar system will benefit the performance of the Mill Stream overflows. Progress of the Malabar system source control works are summarised below.

Works delivered:

Prospect catchment

- Stage 1: 90 ERSs with backflow prevention valves, 400 maintenance holes with rain stoppers
- Stage 2: 11km pipes relined
- Stage 3: 11,300 properties smoke tested & 530 properties defects rectified

Works currently in delivery:

Lower NGRS & Cooks River catchment

- Stage 1: 101 ERSs with backflow prevention valves

Greater Parramatta to Olympic Peninsula areas in the Cooks River catchment

- Stage 1: 14 ERSs with back flow prevention valves

WWOA 2024-25 catchments (Peakhurst, Lugarno & Padstow)

- Stage 1: 147 ERSs with backflow prevention valves, 515 maintenance holes repaired & rain stoppers installed
- Stage 2: 9km pipes investigated
- Stage 3: 14,000 properties smoke tested

WWOA 2025-2030 source control works in 5 catchments

Stage: 142 ERSs with backflow prevention valves, 1,730 maintenance holes will be repaired & rain stoppers installed

Stage 2: 18km pipes investigated

- Stage 3: 30,500 properties will be smoke tested

Works currently in planning:

Mill Stream long term source control works (Proposed source control work include)

- Stage 1: 124 ERSs with backflow prevention valves
- Stage 2: 1,215 maintenances with rain stoppers
- Stage 3: 225 schools will be smoke tested

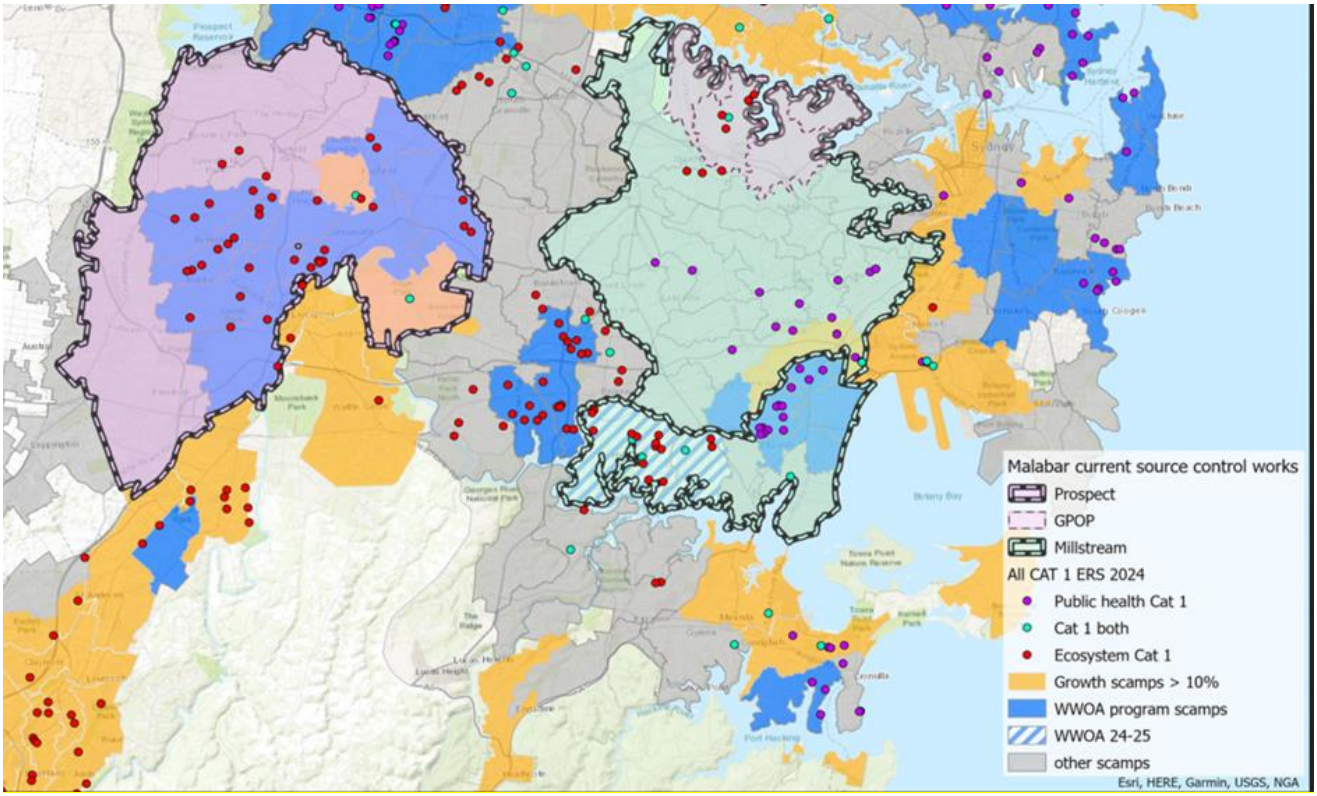


Figure 3-4: Source control catchments in the Malabar system

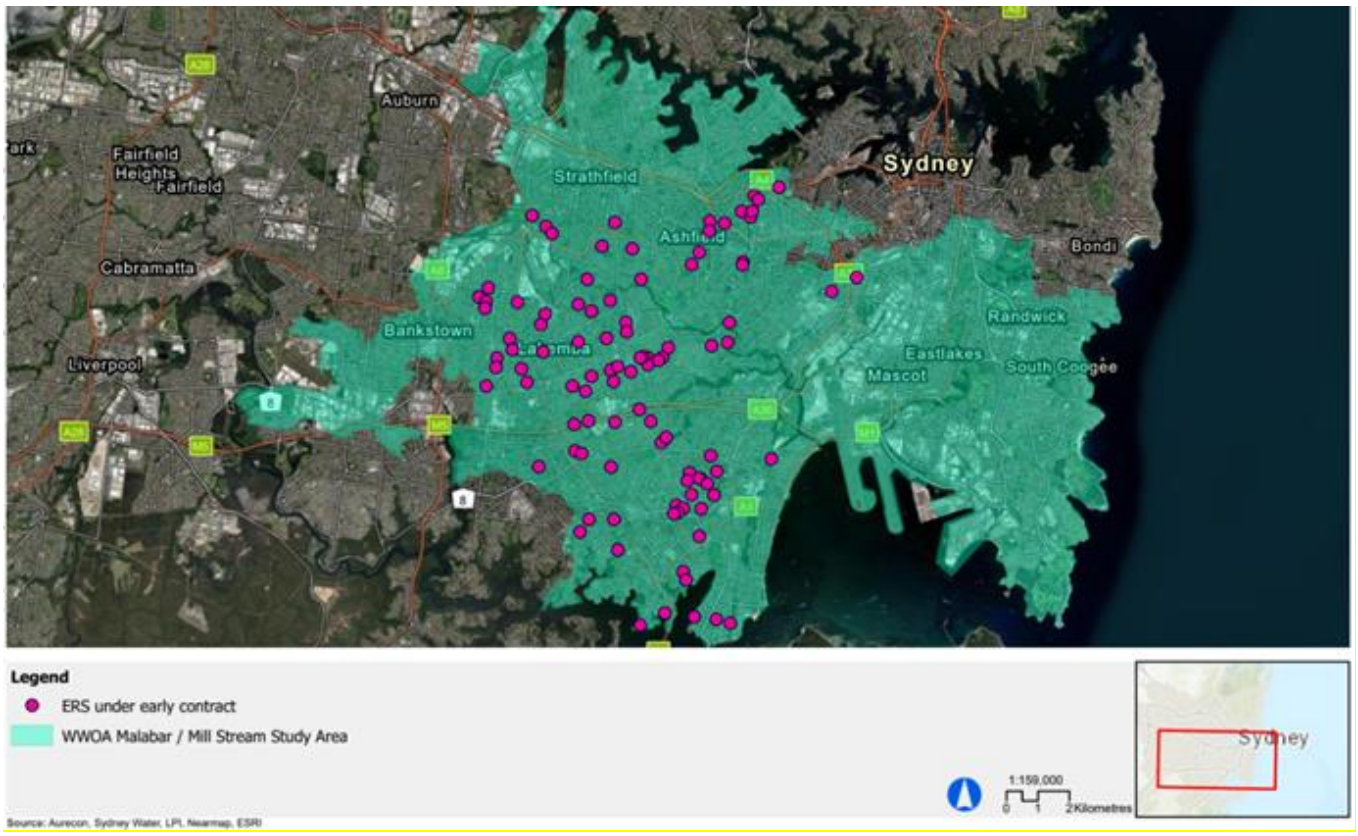


Figure 3-5: Mill Stream source control – ERSs under consideration

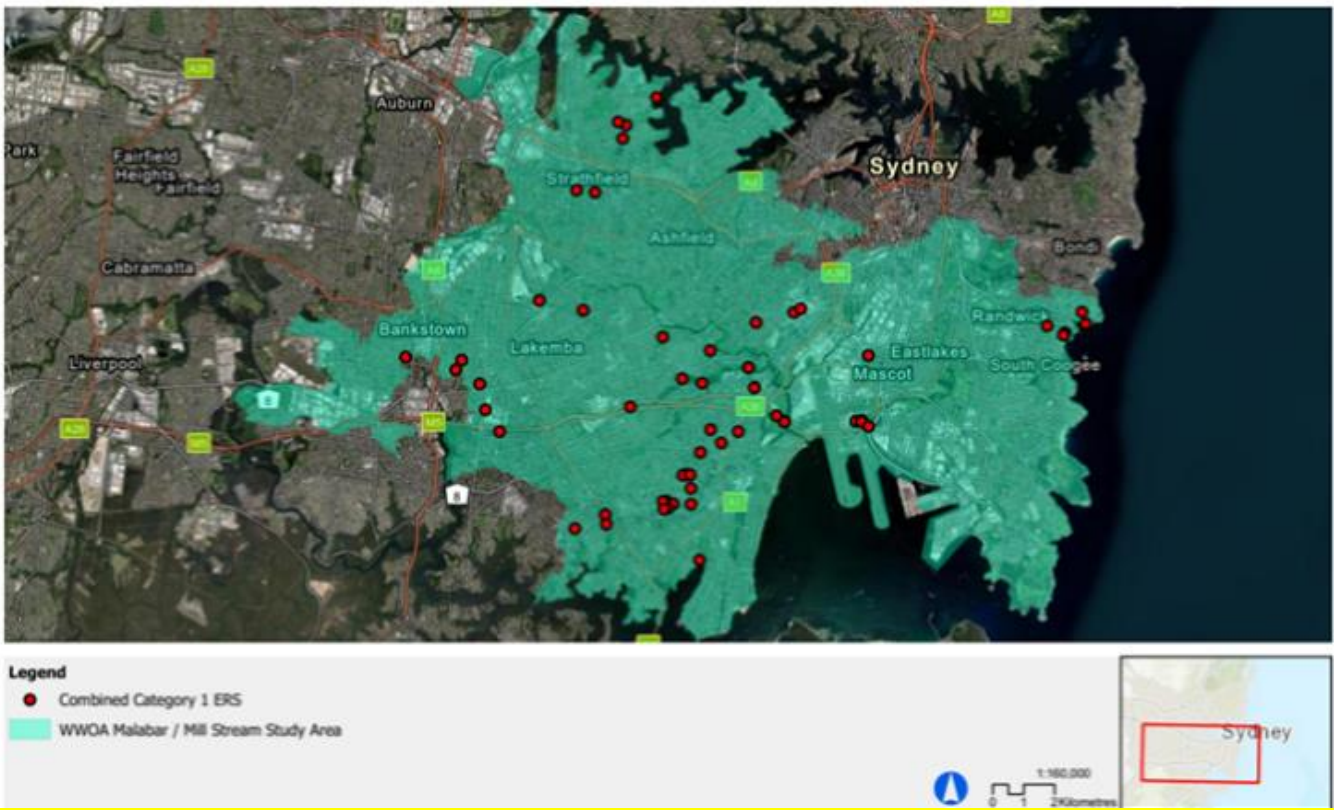


Figure 3-6: Mill Stream source control – private properties under consideration

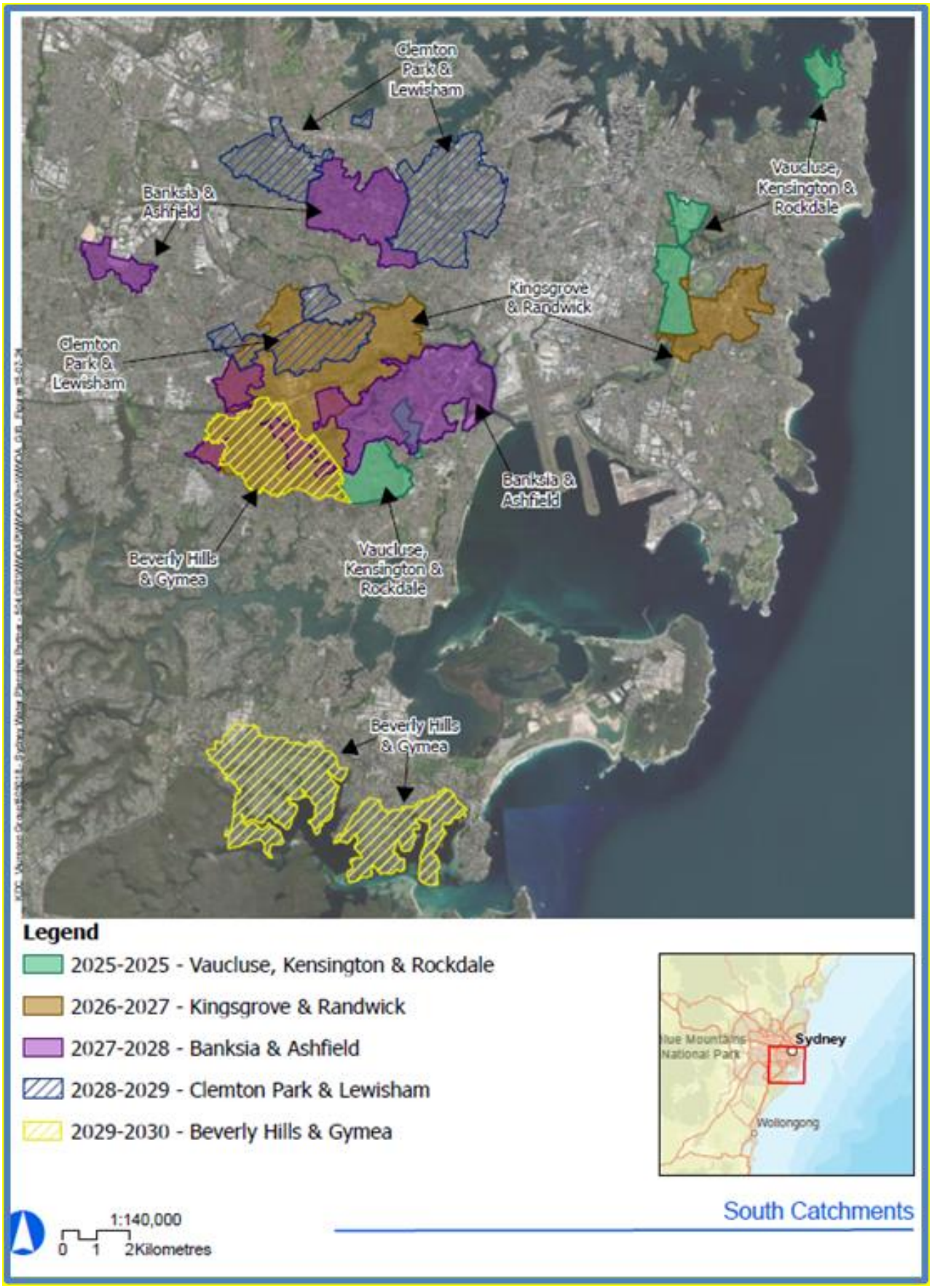


Figure 3-7: WWOA 2025-2030 catchments

3.1.3. EMP Action 1.3 - Conduct Grit Pit Maintenance (Condition 3g)

Sydney Water's grit pits are located within Sydney Airport (Figure 3-8). The multi-compartment grit pits extend across all three barrels (SWSOOS1, SWSOOS2 North and SWSOOS2 South). Regular cleaning of these grit pits is essential to prevent grit from accumulating further downstream, where it is difficult and costly to remove. Sydney Water can remove approximately 150 - 200 tonnes of grit from these pits each cycle.

Construction of a concrete hardstand adjacent to the grit pits to enable safe and all-weather access for cleaning was completed in late October 2024 (Figure 3-8, Figure 3-10, and Figure 3-11). Sydney Water has negotiated an approval with Sydney Airport to carry out cleaning activities during daylight hours. However, Sydney Water has achieved only partial compliance with the requirement to complete 10 cleaning shifts of approximately 4 week cycle. This shortfall is attributed to the prioritisation of airport operations over cleaning activities, resulting in the cancellation of planned cleaning tasks by Sydney Airport. The number of completed cleaning shifts per cycle is detailed in Table 3-2.

Sydney Water will continue to work with Sydney Airport Operations team regarding programming of desilting works with the aim to complete the required 10 cleaning shifts per cycle.

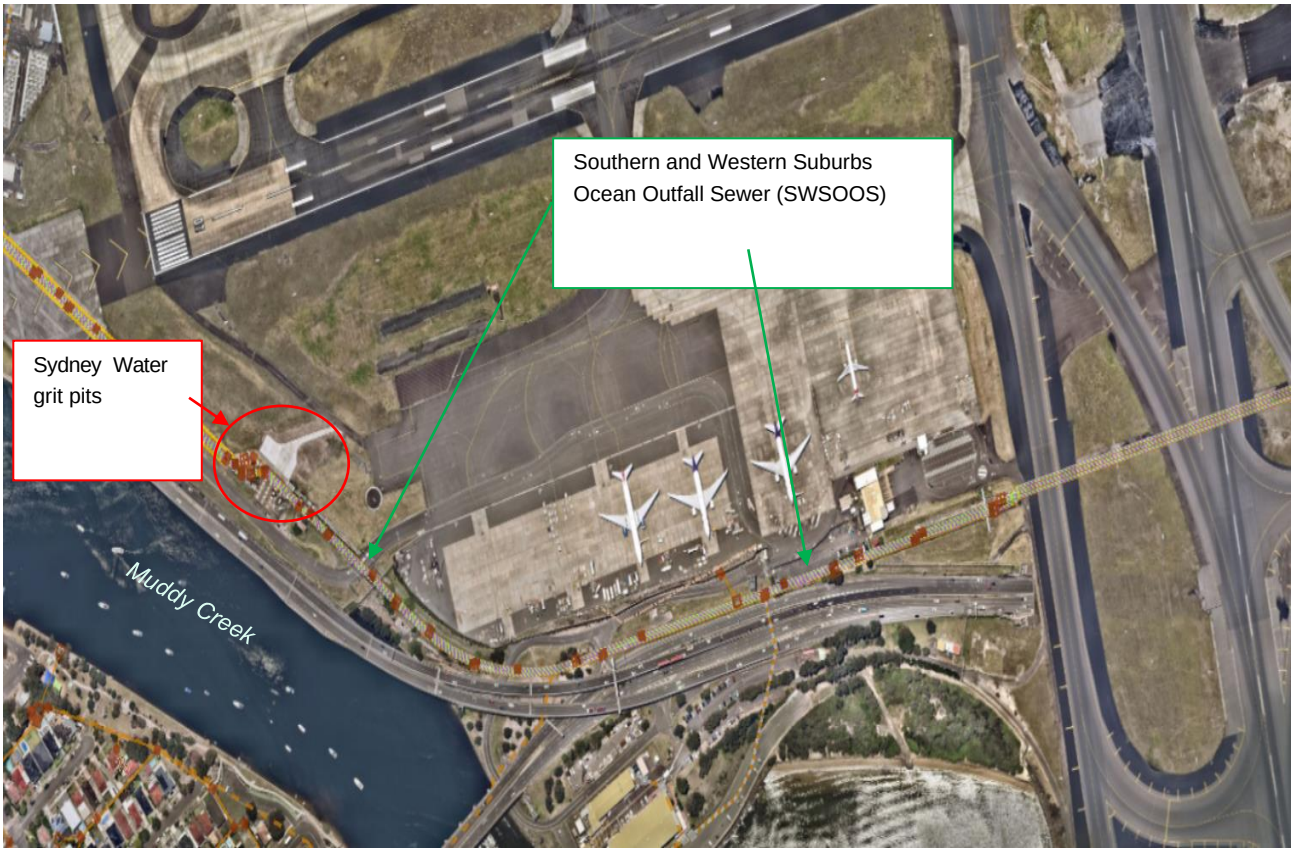


Figure 3-8: SWSOOS Sydney Airport grit pit location



Figure 3-9: Completed hardstand area for safe and all-weather access to clean the SWSOOS Sydney Airport grit pits



Figure 3-10: Before (September 2024) hardstand construction



Figure 3-11: After (November 2024) hardstand construction

Table 3-2: Grit Pit Maintenance Cycles

Maintenance cycles	Dates	Silt removed (Tonnes)	Comments
Cycle 1	2024 July 9-12, 15-19	203	
Cycle 2	2024 August 12-13, 16,19,20-21	91	Limited Sydney Airport Safety Officer Availability
Cycle 3	2024 Sept/October	0	Hardstand Construction -in place of Grit Pit removal
Cycle 4	2024 November 4-8, 12-15	111	Some restricted hours due to Airport Operations Incident
Cycle 5	2024 December 9-13, 16-20	185	
Cycle 6	2025 January 13-17	128.2	Second week cancelled due Sydney Airport emergency work. Sydney Airport attempting to reschedule.
Cycle 7			To be completed.
Cycle 8			To be completed.

3.1.4. EMP Action 1.4 - Implement Malabar Strategic Business Case – network augmentation preferred option (Condition 3h)

The near-to long-term strategy for the Malabar Wastewater System is documented in the Malabar System Investment Program Strategic Business Case (SBC). Sydney Water's investigations showed that either of the following options would cater for demand through to 2046:

a) release highly treated water to the Georges River (system disconnection)

b) or building a new SWSOOS pipeline from Arncliffe to Malabar (system augmentation).

An allocation of funding for the near-term and long-term system works has been included in Sydney Water's 2025-2030 Price Proposal to IPART. IPART will make a final determination of the Price Proposal in September 2025. Sydney Water will decide in 2026 on which of these options will be progressed.

3.1.5. EMP Action 1.5 - Botany Low Level Carrier Rehabilitation (Condition 3i & 20)

The Botany Low Level Carrier is a disused gravity main that requires extensive rehabilitation work to avoid asset failure. However, once rehabilitated this asset can be used to increase wet weather storage at Sewer Pumping Station 38 (SP0038) at Mascot. After the rehabilitation works sewage will be accumulated in the sewer during times of high flow. The accumulated wastewater will then be allowed to discharge into the SWSOOS2 via SP0038 when the sewer flows have abated.

Prior commencing work on Botany Low Level Carrier, Sydney Water must obtain a licence from Sydney Airport. Sydney Water is currently negotiating a licence agreement with Sydney Airport. Once the licence agreement is finalised and indemnity insurance ensured then construction works can commence.

EMP Objective 2 – Feasibility of Grit Pit relocation

Sydney Water grit pits are located at Sydney Airport. Regular access is required to appropriately maintain the pits. Regular access can be complicated and as a result, Sydney Water has completed an assessment for the feasibility of relocating the pits off airport land.

3.1.6. EMP Action 2.1 – Conduct a feasibility assessment for the relocation of the SWSOOS Grit Pits (Condition 3j & 17)

Sydney Water commenced the feasibility assessment in September 2023. As part of this assessment an initial long list of potential solutions was developed with various internal Sydney Water stakeholders and then presented to various external stakeholders from Sydney Airport and Bayside Council. The long list identified eight options, along with the base case maintaining the existing location, as part of our due diligence approach. The options are briefly described in Table 3-3 below:

Table 3-3: Grit pit relocation options

Number	Option	Description
Base Case	Maintain Grit Pits	Maintain existing grit pits and automate the extraction, treatment, and disposal systems. To include a grit classification, handling, and disposal system. Upgrade current access to all weather.
1	Automate Existing	Maintain existing grit pits and automate the extraction, treatment, and disposal systems. To include a grit classification, handling, and disposal system. Upgrade current access to all weather.

Number	Option	Description
2	Improve Access	Modify the fencing around the existing grit pit compound, modify airside land area and acquire additional land from Sydney Airport.
3	Kogarah Golf Course	Grit pits to be relocated to a site on the southwestern border of Kogarah Golf course in the same site identified to house a new Odour Control Unit (OCU) and pump station (separate to this project).
4	Blu Emu Carpark	Blu Emu Carpark: Grit pits to be relocated to a site at the southern corner of the Blu Emu carpark, above the SWSOOS1 siphon, and near SP0038 and the existing OCU.
5	Green Space	Place new grit pit facility in existing green space south of the plane parking area and Kyeemagh Ave and north of the M5 East.
6	Ross Smith Ave	Locate new grit pit facility in the existing parking area near Ross Smith Ave and Butler Rd, west of the existing OCU. This site covers the existing SWSOOS easement and a parking lot area and is located immediately prior to the syphon down-leg.
7	Old Airport Fire Station	Place new grit pit facility in the old airport fire station site. This site is located south of General Holmes Drive, northwest of Ulm Ave and is located at a considerable distance from the existing SWSOOS alignment.
8	Remove Grit Pits and Remove Siphons	Remove both the siphons and grit pits and replace with sections of pipeline.

Various discipline studies were carried out assessing the risk and viability of each of the long list options. These discipline studies included:

- Electrical Connection Review
- Contamination
- Geotechnical
- Hydraulic Assessment
- Technology Review
- Legal Advice

The results of these discipline studies and stakeholder engagements were used to evaluate the options. Some options had critical issues and were excluded, while the following options were shortlisted for the next phase:

- Base Case Option – Maintain Existing
- Option 2 – Improve Access
- Option 3 – Kogarah Golf Course
- Option 4 – Blu Emu Carpark
- Option 6 – Ross Smith Ave

Following this shortlisting, the following works were completed to determine the final option:

- A construction specialist was engaged to undertake a construction feasibility assessment.
- Risk based cost estimates to determine capital costs were developed for each option.

- An economic assessment based on the capital, operating and maintenance costs along with any identified benefits.

The final recommendation was to progress with Option 2 (daytime access) and monitor its effectiveness over a 12-month period. Sydney Water delivered a final feasibility report to the AEO on 30 July 2024 in compliance with condition 17 of the Authorisation.

EMP Objective 3 – Hydraulic Improvement Plan (HIP)

Opportunities to improve the hydraulic performance of the Mill Stream were investigated and a delivery plan was developed by Sydney Water. Sydney Water formed the Hydraulic Improvement Leadership Group (HILG) with representatives from Bayside Council, Sydney Airport, DITRDCA, the Port Authority, and the EPA. The group provides oversight and guidance for the continued staging of the HIP. Sydney Water is seeking to establish a cost sharing agreement with the appropriate HILG members to fund future stages.

3.1.7. EMP Action 3.1 - Chair Hydraulic Improvement Leadership Group (HILG) (Condition 3k & 15)

Sydney Water chaired a Hydraulic Improvement Leadership Group (HILG) meeting on the 23 October 2024. The meeting included representatives from Sydney Water, Sydney Airport, Bayside Council, the Port Authority of New South Wales, and DITRDCA.

The findings of Phase 2A and the scope, duration and cost of the components of Phase 2B were discussed. Options for co-funding Phase 2B were tabled. The next HILG meeting will occur following the successful engagement with Sydney Airport to agree on the direction and scope for Phase 2B (see the following section).

3.1.8. EMP Action 3.2 - Conduct HIP Phase 2B (Condition 3k)

Sydney Water cannot proceed with Phase 2B without a cost-sharing agreement among HILG members. Since no agreement exists yet, there has been no progress. Sydney Water is seeking clarification from Sydney Airport regarding its response to a co-funding request, which suggested the investment would be better spent on long-term overflow solutions. The response did not include a co-funding proposal.

3.1.9. EMP Action 3.3 - Conduct HIP Phase 3 Implementation (Condition 3k)

The implementation of Phase 3 depends on the preferred option identified in Phase 2B and the achievement of a cost-sharing agreement between the HILG members, along with environmental and planning approvals. Sydney Water can only proceed with this phase with the agreement and endorsement of all HILG members; therefore, there is no progress to report at this time. Sydney Water will continue discussions with Sydney Airport regarding this cost-sharing agreement.

EMP Objective 4 –Protect the environment and public health

As Sydney Water works to improve the performance of the Mill Stream ERS and reduce the frequency and volume of overflows, it will also implement all possible options to reduce the potential harm that could occur when the ERSs are operational.

3.1.10. EMP Action 4.1 – Inspect Mill Stream and Foreshores Beach after all overflow events and remove gross pollutants (Condition 3p)

Sydney Water's operational teams responded to overflow events during the reporting period.

3.1.10.1 Monitored discharges

The cumulative total discharge for this period was 1,061 ML across 15 events and 36 days (see Figure 3-12 for details). Details of the date, volume and duration of the individual discharges from 7 June 2024 to 17 January 2025 are provided in Appendix 1.

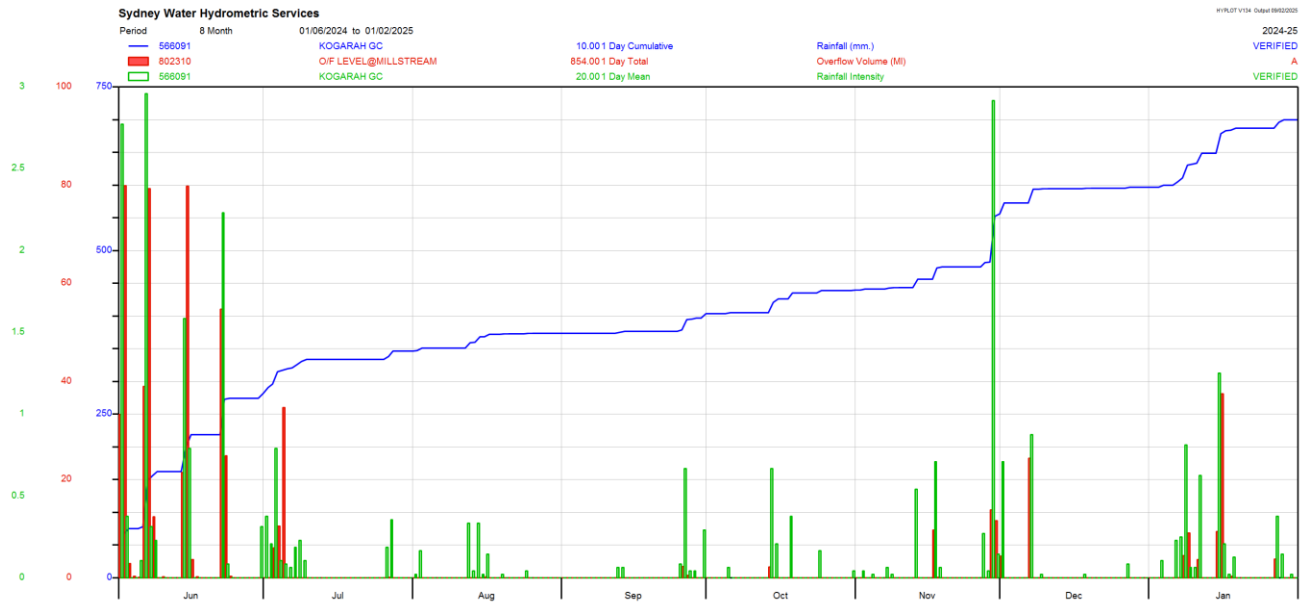


Figure 3-12: Cumulative rainfall (mm) and intensity at permanent rain gauge (Gauge Number: 566091) located at Kogarah Golf Course compared with discharge from overflow gauge number 802310 for the reporting period.

Table 3-4: Comparison of monthly totals for wastewater discharge and rainfall at a local permanent rain gauge (Site ID 566091).

Date	802063 Monthly Total (ML)	802064 Monthly Total (ML)	802065 Monthly Total (ML)	802310 Monthly Total (ML)	566091 Kogarah Golf Course Monthly Total Rainfall (mm)
2024					
Jun	177.69	212.24	102.32	276.86	282.0
Jul	3.93	8.74	3.21	51.39	64.5
Aug	0.00	0.00	0.00	0.22	27.0
Sep	3.37	4.37	8.17	2.80	30.0
Oct	0.10	1.35	3.88	2.18	36.5
Nov	8.16	10.23	8.21	35.33	116.0
Dec	5.80	7.81	5.76	28.79	41.0
2025					
Jan	2.37	7.12	8.39	64.17	87.0
Grand Total	**201.4367**	**251.8525**	**139.9482**	**461.7389**	**684**

3.1.10.2 Overflow inspections and clean-up

Sydney Water monitors overflow activity at all Mill Stream ERSs. When an overflow occurs at any ERS, an alert is registered. Once the overflow stops, an alert is sent to the Systems Operations Centre (SOC). The SOC then raises a work order for a field crew to inspect and conduct a material harm assessment (site inspection). If material harm is identified, an incident is declared, and an environmental clean-up is carried out.

Between 3 June 2024 and 17 January 2025, a total of 18 site inspections were conducted in response to overflow alerts (refer to Table 3-5). Of these, eight inspections met the material harm assessment criteria, and clean-up activities were subsequently completed at Mill Stream and Foreshore Beach (see Appendix 2). Gross pollutants and debris were collected, bagged, and removed from Foreshore Beach as illustrated in Figure 3-13 and Figure 3-14. Analytical reports from Sydney Water Environmental Response Field sampling and testing results for the 8 material harm incidents are provided in Appendix 6.

Table 3-5: Monthly overflow inspections and clean-up totals 3 June 2024 to 17 January 2025

Month	Inspections	Clean-Ups	Gross pollutants removed m3
June 2024	5	2	100.00
July 2024	3	1	10.52
August 2024	2	0	00.00
September 2024	2	1	11.67
October 2024	1	1	04.37
November 2024	1	1	05.78
December 2024	2	1	10.37
1 - 17 January 2025	2	1	03.15
Total	**18**	**8**	**145.87**



Figure 3-13: Gross pollutants and stormwater debris observed during the site review



Figure 3-14: Gross pollutants and stormwater debris bagged for removal during clean-up

3.1.11. EMP Action 4.2 - Implement wastewater screening at Airport site (Condition 3l)

The objective of wastewater screening is to reduce gross pollutants transported via Mill Stream wet weather overflows to Foreshores Beach, thereby mitigating potential harm to public health and the environment. A feasibility and options study identified wastewater screening at SP0038 as the preferred option. The screens will provide preliminary treatment of overflows by redirecting discharges through a screening system to remove debris and rags before reaching the Mill Stream.

Sydney Water has completed stage 1 works, including site investigations and the concept design for installing screens inside the SP0038 building. A preliminary heritage assessment, based on the concept design, identified several challenges with potential impacts on project duration and cost during the construction stage. These challenges included significant heritage Section 60 work applications and other stakeholder approvals, as well as site issues like PFAS-contaminated soil and high groundwater levels.

Citing these challenges and the risks they posed to the October 2026 deadline and budgetary estimates, Sydney Water conducted a high-level options assessment based on new information obtained from stage 1 works. This assessment highlighted that installing a gross pollutant trap outside the SP0038 building would meet necessary screening levels while significantly improving Sydney Water's ability to deliver the project on time and within budget.

Sydney Water presented this new proposal to external stakeholders at a meeting on 13 December 2024. Detailed assessments of this option have been initiated, including hydraulic assessments and any additional site investigation works required. At this stage, it is anticipated that this proposed option will either eliminate or reduce many of the challenges highlighted in stage 1 of the base case option, resulting in the best possible outcome for Sydney Water and our stakeholders.

3.1.12. EMP Action 4.3 - Maintain permanent signage at Foreshore Beach

Sydney Water has updated existing signs and installed additional signs at Foreshore Beach (Figure 3-15) as part of its ongoing maintenance and enhancement efforts. The new and updated signs now provide extra information for the public (Figure 3-16 and Figure 3-17). These improvements include multi-language notifications, QR codes for Beachwatch updates, and information on Mill Stream. The installation and update of the signage were completed on 28 November 2024.



Figure 3-15: Mill Stream signage update addition of QR codes and Interpreter Service



Figure 3-16: Signage locations at Foreshore Beach



Figure 3-17: Signage location at Foreshore Beach

3.1.13. EMP Action 4.4 - Ensure all maintenance personnel and contractors are aware of threatened species fact sheets

Sydney Water maintains a detailed work instruction for clean-ups of wet weather overflows at Mill Stream/Foreshore Beach (available upon request). This work instruction includes information on threatened species. Work instructions are provided to all personnel and contractors involved in wet weather clean-ups. The work instruction is regularly updated as part of Sydney Water's documentation control system review cycle. Updated documents are distributed to all internal business partners and stakeholders.

3.1.14. EMP Action 4.5 - Store gross pollutants appropriately during clean ups (Condition 3p)

The work instruction for the clean-up of wet weather overflows at Mill Stream/Foreshore Beach includes guidelines for the storage of gross pollutants during clean-ups. It is required that all solids be bagged and placed temporarily on a waterproof membrane, like a tarpaulin, if they are to remain onsite for a minimal period until removal.

3.1.15. EMP Action 4.6 - Dispose of gross pollutants appropriately

Sydney Water operational staff remove waste collected after each clean-up and follow the appropriate disposal processes. Bagged waste is periodically collected from the site during the clean-ups and transported to Sydney Water depots, before being disposed of at a designated waste management facility.

EMP Objective 5 – Monitor wastewater system performance, odour and receiving waterway health

Sydney Water conducts comprehensive monitoring of the wastewater network, including Mill Stream ERS and related assets, as well as the receiving waterways and atmosphere.

3.1.16. EMP Action 5.1 - Conduct continuous overflow monitoring and routine monthly reports (Condition 3a, 3b, 3c & 14)

Sydney Water monitored Mill Stream overflows in accordance with the requirements of the EMP. Monthly overflow reports for the period from 7 June 2024 to 17 January 2025 have been delivered to the AEO and relevant stakeholders including Sydney Airport, Bayside Council, and the EPA. The monthly overflow reports include a summary of the debris removed (cubic metres) during respective clean-ups and graphs depicting overflow levels and rainfall. Monthly Overflow Reports for the reporting period from 7 June 2024 to 31 December 2024 were submitted on the dates shown in Table 3-6.

Table 3-6: Monthly report summary

Dates	Description	Date Sent	Recipients
7 Jun - 31 Jul 2024	Mill Stream Monthly Overflow and Incident Report July 2024	19 Aug 2024	**AEO** aeosydney@infrastructure.gov.au Mariana Torres Yanez, Sahara Dukes **Sydney Airport** Rhonda Lenardon, Jake Atkins
1 - 31 Aug 2024	Mill Stream Monthly Overflow and Incident Report August 2024	11 Sep 2024	**AEO** aeosydney@infrastructure.gov.au Mariana Torres Yanez TORRES YANEZ, Sahara Dukes **Sydney Airport** Rhonda Lenardon, Jake Atkins
1 - 30 Sep 2024	Mill Stream Monthly Overflow and Incident Report September 2024	11 Oct 2024	**AEO** aeosydney@infrastructure.gov.au Mariana Torres Yanez TORRES YANEZ, Sahara Dukes **Sydney Airport** Rhonda Lenardon, Jake Atkins Bayside Council Colin Mable, Hong Nguyen **The NSW EPA** Matthew Hart

Dates	Description	Date Sent	Recipients
1 - 31 Oct2024	Mill Stream Monthly Overflow and Incident Report October 2024	12 Nov 2024	**AEO** aeosydney@infrastructure.gov.au Mariana Torres Yanez TORRES YANEZ, Sahara Dukes **Sydney Airport** Rhonda Lenardon, Jake Atkins Bayside Council Colin Mable, Hong Nguyen **The NSW EPA** Matthew Hart
1 - 30 Nov 2024	Mill Stream Monthly Overflow and Incident Report November 2024	5 Dec 2024	**AEO** aeosydney@infrastructure.gov.au Mariana Torres Yanez TORRES YANEZ, Sahara Dukes **Sydney Airport** Rhonda Lenardon, Jake Atkins Bayside Council Colin Mable, Hong Nguyen **The NSW EPA** Matthew Hart, Laura Ansted
1 - 31 Dec 2024	Mill Stream Monthly Overflow and Incident Report November 2024	16 Jan 2025	**AEO** aeosydney@infrastructure.gov.au Mariana Torres Yanez, Sahara Dukes, Peter Stapleton **Sydney Airport** Rhonda Lenardon, Jake Atkins Bayside Council Colin Mable, Hong Nguyen **The NSW EPA** Matthew Hart

Sydney Water monitored ERS gauge levels at four locations at Mill Stream (802063, 802064, 802065, 802310) monthly from June 2024 until December 2024. Graphs provided represent rainfall plots, overflow volumes, and sewer levels (Appendix 5). During June 2024, there were three overflow events across all four gauges. Preceding total rainfall levels of 71 mm, 38 mm, and 53.5 mm were observed at the Kogarah rainfall gauge. During July 2024, two overflow events were observed. At the start of July 2024, an event resulted in overflow across all four gauges with preceding total rainfalls of 19 mm. A smaller overflow event at the end of July 2024 from one gauge (802310) with preceding rainfall of 8.5 mm. One overflow event during August 2024 was observed at two gauges (802065 and 802310) with a preceding rainfall of 8 mm. One overflow event during September 2024 was observed across all gauges with a preceding rainfall of 16 mm. One overflow event during October 2024 was observed across all gauges with a preceding rainfall of 36 mm. Two overflow events were observed in November 2024 across all four gauges. Preceding rainfall levels of 17 mm and 70 mm were observed at the Kogarah rainfall gauge. One overflow event during December 2024 was observed across all four gauges with a preceding rainfall of 21 mm.

Sydney Water has provided annual total discharges per ERS gauge at the Mill Stream for the period 2020 until 2025 (Figure 3-18). Prior to June 2024 the reporting methodology for the Mill Stream overflow gauge at SG0035 (802310) was overstating the discharge volume leaving the sewer network. This was due to all positive overflow events being classified as siphonic hydraulic conditions. With the addition of new monitoring equipment being installed since June 2024, we have evidence to support the calculated discharge to be a more accurate representation of actual volume discharge.

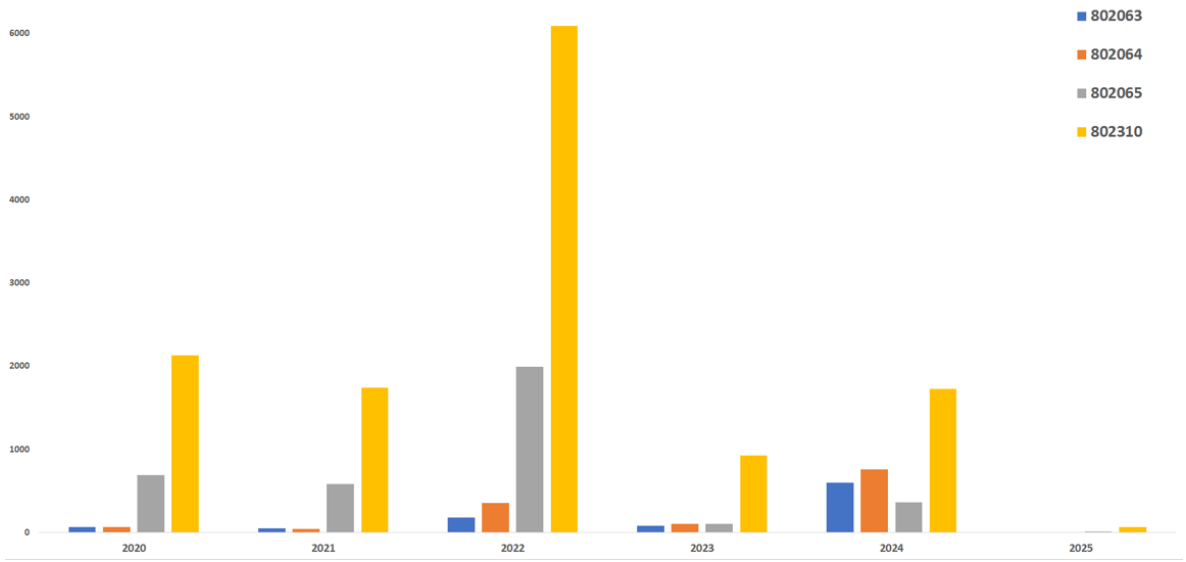


Figure 3-18: Annual Total Discharge (ML) per ERS Gauge

3.1.17. EMP Action 5.2 - Provide overflow alerts to AEO and Sydney Airport representatives (Condition 12 & 13)

Sydney Water provided overflow alerts to the AEO and Sydney Airport representatives on the existing contact list, as either SMS or emails. The configuration of the alert triggers has been optimised, which was required as the trigger was too sensitive and triggered multiple times for the same overflow event. The optimisation was completed at the start of October 2024 and prompted the updating of the contact list for alerts for the DITRDCA, Sydney Airport and Bayside council representatives. The contact list is updated as required with any modification or additional recipients.

3.1.18. EMP Action 5.3 - Monitor the dry weather sewage capacity in the SWSOOS

Sydney Water monitors the wastewater level in the SWSOOS near the overflow points to check for changes in capacity over time. The gauge measuring the sewer level (SG0035) is in the SWSOOS and is connected by telemetry to the Sydney Water Integrated Instrumentation Control Automation and Telemetry System (IICATS). Flow depths are captured and recorded every 15 minutes.

The metric used is the minimum wastewater level below 0.45m over a rolling six-month period. The minimum wastewater level is utilized because it is not affected by fluctuations in wastewater depths due to wet weather, and a rolling six-month period ensures that the measured period is not entirely influenced by wet weather conditions. Desilting and grit removal activities increase capacity and reduce the wastewater level.

The minimum dry weather sewer level recorded during this reporting period was 0.34m, recorded on 29 September 2024 (Figure 3-19). Raw data is available (0). Minimum dry weather sewer level of 0.34m was implemented to facilitate safe maintenance activities in upstream sewer mains.

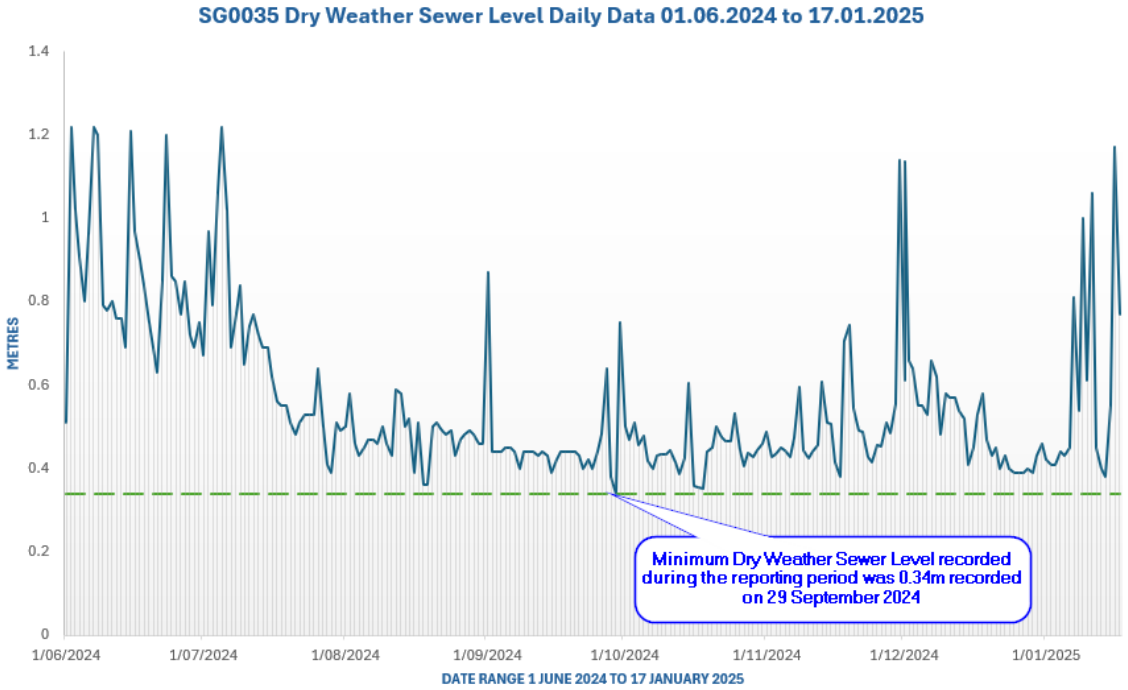


Figure 3-19: SG0035 dry weather sewer level daily data 01.06.2024 to 17.01.2025

3.1.19. EMP Action 5.4 - Monitor water quality at Mill Stream (Condition 3m, 3q, & 14)

Sydney Water is completing water quality monitoring to provide an assessment of potential impacts on the receiving waterway and identify pollutants of potential concern. The water quality monitoring will allow characterisation of conditions against:

- Schedule 2 criteria of Airports (Environment Protection) Regulations 1997,
- Australian and New Zealand guidelines for fresh and marine water quality (ANZECC/ARMCANZ 2000 & ANZG 2018)
- PFAS National Environmental Management Plan Version 2.0.

Sydney Water has completed three of the quarterly monitoring events for both dry and overflow ('wet') event sampling (Table 3-7). Overflow event 1 was conducted during a large rainfall event and subsequent overflow discharge was very high (650ML), occurring on four of the five sampling dates. Overflow events 2 and 3 were conducted during comparatively lower rainfall events and lower discharge volumes (18.7ML and 54.2ML respectively).

Table 3-7: Water quality monitoring dates and conditions

Sampling event	Sampling dates	24 HR Rain(mm)	Sampling method	Tide	Wind
Overflow Event 1	5 April 2024	21.4	Road	Mid to low	SE @ 26 km/h
	6 April 2024	143.4	Boat	Mid to low	NNW @ 15 km/h
	7 April 2024	0	Boat	Mid to low	NM @ 9 km/h

Sampling event	Sampling dates	24 HR Rain(mm)	Sampling method	Tide	Wind
	8 April 2024	0	Road	Mid to low	S @ 17 km/h
	9 April 2024	0	Boat	High to mid	SW @ 11 km/h
Dry Event 1	24 May 2024	0*	Boat	High to mid	NW @ 13 km/h
Dry Event 2	6 September 2024	0*	Boat	High	NW @ 4 km/h
Overflow Event 2	27 September 2024	19.8	Road	Low	SSE @ 35 km/h
	28 September 2024	1.2	Road	Low	SSE @ 15 km/h
	29 September 2024	1.6	Road	Mid to low	WNW @ 9 km/h
	30 September 2024	8.2	Road	Mid to low	SSW @ 24 km/h
	1 October 2024	0.8	Road	Mid to low	WNW @ 7 km/h
Dry Event 3	31 October 2024	0*	Boat	High	SSW @ 11 km/h
Overflow Event 3	30 November 2024	74.4	Boat	High to mid	NE @ 24 km/h
	1 December 2024	0.4	Boat	High	WNW @ 17 km/h
	2 December 2024	14.6	Road	High to mid	NW @ 17 km/h
	3 December 2024	0	Road	High	NNE @ 13 km/h
	4 December 2024	0	Road	High	S @ 26 km/h

**** Indicates previous 72 hours rainfall total (mm)***

3.1.20. EMP Action 5.5 - Air quality monitoring (H2S) near discharge location (Condition 3d)

Sydney Water has implemented continuous air quality monitoring near the Mill Stream overflows. This effort, which will be active during the summer of 2024/25, will remain in place long enough to capture data when overflows are occurring. These results will complement the monitoring done in 2020/21.

Monitors were installed on 18 September 2024, upstream of overflows near Botany Public School, at the Mill Stream overflows, and near the Botany container terminal along Foreshore Drive (Figure 3-20). These monitors will be in place for 12 months. An additional monitor at the airport fence will be installed when an approval from Sydney Airport has been granted.

During the monitoring period from 18 September 2024 to 17 January 2025, no levels of Hydrogen Sulfide (H2S) were detectable by the human nose from the Mill Stream Overflows. However, on 7 January 2025, a reading of 0.4ppm (parts per million) was detected near the council stormwater overflow pipes for a brief duration of less than an hour. While this level is considered detectable by the human nose, it was very low and posed no danger to human health.



Figure 3-20: Sewer overflow odour monitoring location

EMP Objective 6 – Conduct effective complaint management

3.1.21. EMP Action 6.1 - Respond to and investigate all complaints regarding the Mill Stream ERS (Condition 3d)

Between 7 June 2024 to the 17 January 2025 the were no noise or water complaints. However, there were two complaints related to Mill Stream overflow and one complaint concerning a failure of the Airport OCU (SY0041). The Mill Stream complaints originated from the Botany area, located to the south-east of the Mill Stream overflows (Figure 3-21). Details of these complaints are provided in Table 3-8

Table 3-8: Mill Stream complaints

Sydney Water Reference	Date Complaint Received	Description	Sydney Water (SW) Resolution & Response
Work order 93087332	23 Oct 2024	Waste Water-Odour Enquiry-Mascot	**23/10/2024-13:39**, Network Technician arrived onsite, investigated odour inquiry, odour is localised around odour control unit SY0041, when standing down wind of control unit outlet slight odour can be detected but not consistently, no evidence of sewer overflow, photos sent to mx. **Complaint resolved 23-Oct-2024**
Work order 93485342	17 Dec 2024	Waste Water-Odour Enquiry-Mascot – Airport Control Tower employees are heavily affected by sewer odour concerns to the point of feeling sick.	**17-Dec-2024** Network Technicians Inspected area - no odour at ground level - odour may be coming from Exhaust To Atmosphere Vent Stack VSH51 - possible due to wind and heat - checked SWSOOS and other side of grand parage - both carriers are running as per normal - inspected over flows and mill pond all okay - spoke with customer - mx photos sent- Issue has been assessed 17-Dec 2024 under work order 93485342 but customer unhappy with the outcome and would like to escalate the matter. Refer to CRM 800396218 7 Jan 2025
CRM-8003962182	7 Jan 2025	Waste Water-Odour Enquiry-Mascot-Customer unhappy with previous response by Sydney Water.	**07-Jan-2025** Sydney Water (SW) was advised all air traffic controllers get nauseous and sick heaving over the odour. Customer would like to escalate this complaint or will discuss with the EPA due to health hazard. Believes issue only affects them as they are located higher up. Customer would like a resolution to the concern. Sydney Water Lead Engineer spoke to the customer (David) on Tuesday 12:57pm 07-Jan-2025 approx. and explained the situation. **8-Jan-2025** SW Lead Engineer sent a confirmation emailed summary of their conversation to the customer the next day. - Airport OCU Failure. OCU SY0041 was switched off at 16:00 on 07/01/2024. This reduces the singular point to discharge air containing elevated H2S and odour in close proximity to the Airport Control Tower. **Complaint Resolved 8-Jan-2025**

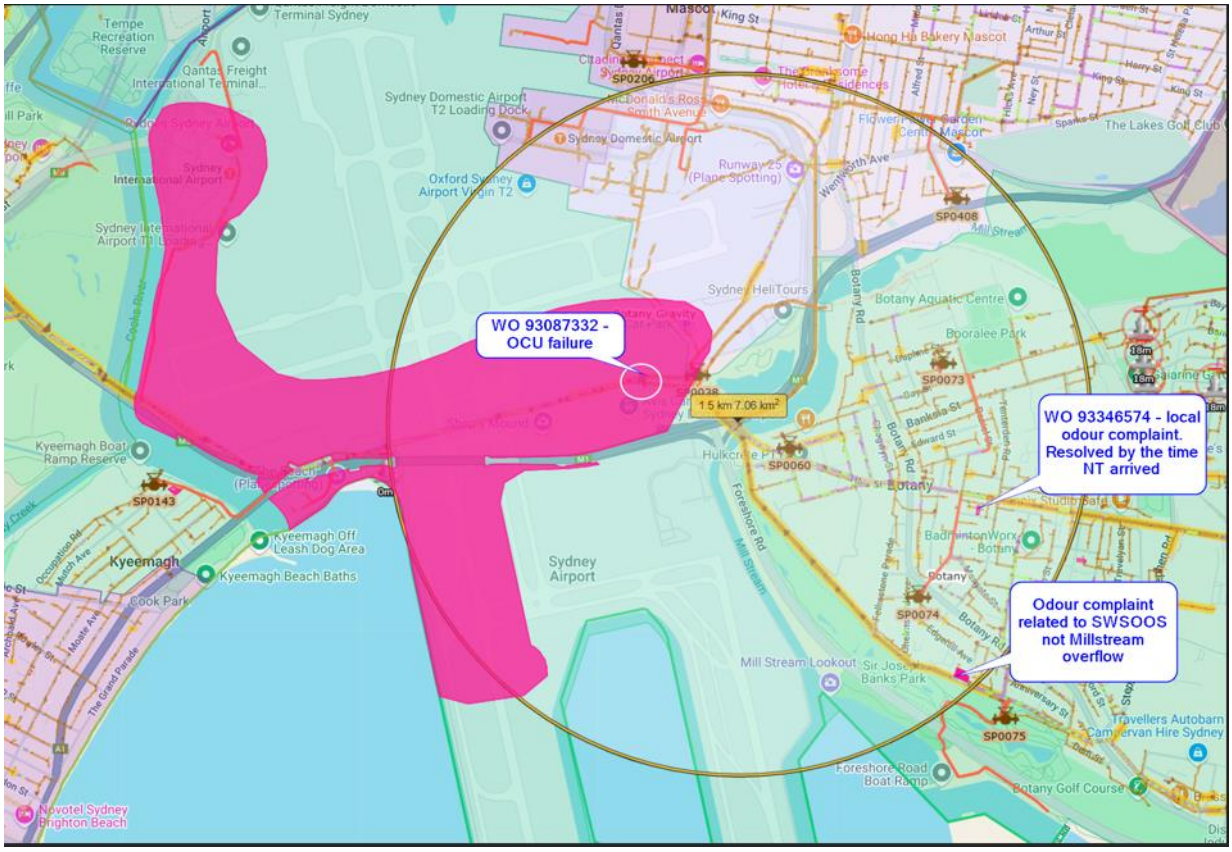


Figure 3-21: Odour complaints around Mill Stream from 7 June 2024 to 17 January 2025

EMP Objective 7 – Progress Reporting

3.1.22. EMP Action 7.1 Provide Quarterly Update Report (Condition 7 & 8)

Quarterly reports were completed by Sydney Water and shared with the Airport Environment Officer (AEO) and Sydney Airport as shown in Table 3-9. Sydney Water also included data from 1 April 2024 to the 6 June 2024 which was not covered by the last Authorisation period (Authorisation period 30 April 2021 to 31 March 2024).

Table 3-9 Summary of Sydney Water's quarterly report submission

Report Description	Submitted to	Date Sent	Acknowledgement Receipt Date
Mill Stream Quarterly Report Period 1 (1 April 2024 - 30 September 2024)	**AEO** **Mariana Torres -** Assistant Director AEO (NSW Hub) Environment Regulation Section/Airport Environment Branch Domestic Aviation and Reform Division (mariana.torres@infrastructure.gov.au)	21 October 2024	Mariana Torres 22 October 2024
	The NSW EPA **Matthew Hart** - Unit Head-Operations (matthew.hart@epa.nsw.gov.au)	23 October 2024	Matthew Hart 23 October 2024
	Sydney Airport	3 December 2024	No confirmation received.

Report Description	Submitted to	Date Sent	Acknowledgement Receipt Date
	Jake Atkins - General Manager Environment and Sustainability (jake.atkins@syd.com.au) **Rhonda Lenardon** -Senior Manager Environment (rhonda.lenardon@syd.com.au) **Nicole Cheung** -Environment Manager-Major Projects (nicole.cheung@syd.com.au)		

3.1.23. EMP Action 7.2 Chair Quarterly Stakeholder Reference Group (SRG) meeting (Condition 16)

Between 7 June 2024 to 17 January 2025, Sydney Water chaired two quarterly Stakeholder Reference Group (SRG) meetings. Further details are provided in Table 3-10. The meetings included representatives from Sydney Water, Sydney Airport, Bayside Council, the Port Authority of New South Wales, and the DITRDCA. A SRG meeting has been scheduled for 12 February 2025.

Table 3-10: SRG meeting dates and agenda

Meeting	Date completed	Agenda
SRG	26 July 2024	Welcome and Introductions, New Authorisation and SRG, Authorisation conditions, EMP, Overflow discharges and response, Grit Pit Relocation Feasibility Study.
SRG	29 October 2024	Welcome and Introductions, Sydney Water's new structure post re-alignment update, IPART -Pricing process and outcomes of the determination, EMP Action Updates.

3.1.24. EMP Action 7.3 Provide Annual EMP Compliance Report (Condition 2 and 4)

This Annual Report has been prepared in accordance with Action 7.3 in the EMP.

4. Additional Authorisation Conditions

Condition 3n (L7.1 Licence Compliance)

On 30 September 2024, Sydney Water submitted the Annual Sewage Treatment System Performance Report (Wet Weather Overflow) to the EPA as part of its 2024 Annual Returns. The report documented that the Malabar hydraulic sewer system model was compliant with condition L7.1 of the Malabar Wastewater System Environment Protection Licence 372 (EPL 372). The relevant excerpt from this report is included in (Appendix 4). A detailed description of how the Malabar hydraulic model is calibrated and assessed for compliance will be included in the modelling report due 31 December 2025 (Authorisation Condition 22).

Annual Returns are not published for public viewing by Sydney Water. Part of the submission (non-compliance and load summary) can be viewed on the EPA public register under Malabar EPL 372: Environment & Heritage | POEO Licences, Application and Notice Detail

Condition 3o & 18 (Bird Strike)

Sydney Water submitted the Bird Strike Risk Assessment letter (dated 30 August 2024) to AEO in compliance with condition 18 of the current Authorisation. Sydney Water acknowledges Sydney Airport's concern regarding the potential for Mill Stream overflows to increase bird strike risk in their letter to AEO dated 4 November 2024.

Since 2021, Sydney Water has been engaging with Sydney Airport and discussed in several meetings the bird strike risks related to the Mill Stream overflows. As mentioned in the Sydney Water letter to Sydney Airport dated 5 December 2024, the information presented by Sydney Airport has not provided conclusive evidence linking Mill Stream overflows to any additional measurable risk to aviation safety. Sydney Water is open to continuing discussions on bird strike risk with AEO and Sydney Airport in early 2025.

Sydney Water will continue to implement improvements to the Mill Stream over the next three years. Sydney Water aims to work collaboratively with Sydney Airport to enhance outcomes at Mill Stream. Sydney Airport's support is important for the timely and effective implementation of key actions to meet Sydney Water's authorisation conditions. When all short and near-term improvement works are completed by 2029, as part of our EMP, Sydney Water expects to have reduced modelled overflows to no more than 10 events a year, and a total volume of 928 ML/year.

Condition 6 (Shortcomings)

The calibrated model used for the Mill Stream overflow performance reporting in December 2023 was validated using the flow monitoring data captured for the period January 2024 to December 2024. The Mill Stream overflow performance reported from the model is within the target set in the EMP (13 overflow events in 10 years and overflow volume of 128 ML/year). There are no shortcomings in the proposed EMP targets set and no corrective actions are required. The Mill Stream overflow performance reporting report is attached (Appendix 7).

Condition 9 and 10 (Community meeting)

A community meeting to provide an annual update on the progress of the implementation of the EMP will be held on Thursday 27 February 2025 from 4pm to 7pm.

This drop-in session will be held locally at a hall at St Matts Anglican Church in Botany, near the Mill Stream area. The community, local residents and interested stakeholders will be invited to join us for an update on work to improve the Mill Stream environment. Please note Botany Town Hall was not available.

The surrounding local community will be invited via a letterbox drop in the Botany local area to several thousand residents as shown within the red outline in the map below:



Figure 4-1: Map showing area to receive letter drop**.**

The local community and interested stakeholders will also be notified with an update to subscribers of the Mill Stream project page on the Sydney Water website and geolocated advertisements on social media (Facebook). These mechanisms will reach thousands of people within the Mill Stream local area.

The event details were also shared with the AEO, Bayside Council, Sydney Airport, the EPA and the Port Authority of NSW on 13 February.

The session will provide information about:

- Emergency relief structures

- Progress on the Environmental Management Plan including our objectives, key actions, plan and completed projects
- Information about both short term and longer-term plans for Mill Stream

A team from Sydney Water will be available on the evening to answer questions and capture any community feedback. Attendees will be encouraged to subscribe for regular updates.

A copy of the annual EMP Compliance Report will be provided to Bayside Council by 28 February 2025, and uploaded onto Sydney Water's website.

Condition 14 (Providing reports to Sydney Airport)

Condition 14 of the Authorisation requires ***All monthly and quarterly reports were delivered on time withing 21 days of finalisation***.

The quarterly report 1 July 2024 to 30 September 2024 was not sent withing the 21-day timeframe to Sydney Airport. The report was sent to Sydney Airport on the 3 December 2024. The delay was due to an internal Sydney Water staff error.

Condition 16 (Attending additional meetings)

In addition to SRG meetings, Sydney Water must attend meetings with Bayside Council, all Sydney Airport Community Forum meetings, and Planning and Coordination Forum meetings to which it is invited, and provide an update to those forums on the progress of the implementation of the EMP. Sydney Water was not invited to attend and additional meetings that required an update on the progress of the EMP during this reporting period.

Condition 19 (IPART Submission)

Sydney Water submitted its next price proposal to the New South Wales Independent Pricing and Regulatory Tribunal (IPART) and is currently on exhibition. The proposal can be viewed on the Sydney Water website page titled Our 2025–30 price proposal.

A funding allocation of about $242 million has been proposed towards the Wet Weather Overflow Abatement program. This is in addition to the funding allocation of $437 million towards other wet weather overflow related investments in growth areas. IPART has announced an extension of its review with plans to release the draft determination t by May 2025 and the final determination by September 2025.

5. Appendices

Appendix 1 - Sewer overflow volume estimate report Mill Stream (Botany Bay)

	Hydstra Station No: 802063 Discharging Sewer: SWSOOS 2S Overflow @ Sydney Airport	Hydstra Station No:802064 Discharging Sewer: SWSOOS 2N Overflow @ Sydney Airport	Hydstra Station No: 802065 Discharging Sewer: SWSOOS 1 Overflow @ Sydney Airport	Hydstra Station No: 802310 Discharging Sewer: Southern Division S/M (SWSOOS)	
Description	**Total Monthly Overflow Discharge (ML)**	**Total Monthly Overflow Discharge (ML)T**	**Total Monthly Overflow Discharge (ML)**	**Total Monthly Overflow Discharge (ML)**	**Total Volume (ML)**
7 Jun 2024 to 30 Jun 2024	177.69	212.24	105.37	276.86	772.16
***Duration (Days)**	6	7	8	14	
****Event Count**	3	3	4	3	
1 Jul 2024 to 31 Jul 2024	3.93	8.74	6.17	51.39	70.23
***Duration (Days)**	3	5	5	5	
****Event Count**	1	1	2	2	
01 Aug 2024 to 31 Aug 2024	0	0	0	.22	.22
***Duration (Days)**	0	0	1	2	
****Event Count**	0	0	0	1	

Description	Hydstra Station No: 802063 Discharging Sewer: SWSOOS 2S Overflow @ Sydney Airport Total Monthly Overflow Discharge (ML)	Hydstra Station No:802064 Discharging Sewer: SWSOOS 2N Overflow @ Sydney Airport Total Monthly Overflow Discharge (ML)T	Hydstra Station No: 802065 Discharging Sewer: SWSOOS 1 Overflow @ Sydney Airport Total Monthly Overflow Discharge (ML)	Hydstra Station No: 802310 Discharging Sewer: Southern Division S/M (SWSOOS) Total Monthly Overflow Discharge (ML)	Total Volume (ML)
01 Sep 2024 to 30 Sept 2024	3.37	4.37	8.17	2.8	18.71
***Duration (Days)**	2	2	2	2	
****Event Count**	1	1	1	1	
01 Oct 2024 to 31 Oct 2024	.10	1.35	3.88	2.18	7.51
***Duration (Days)**	1	1	1	2	
****Event Count**	1	1	1	1	
01 Nov 2024 to 30 Nov 2024	8.16	10.23	8.21	35.33	61.93
***Duration (Days)**	3	4	4	4	
****Event Count**	2	2	2	2	
01 Dec 2024 to 31 Dec 2024	5.8	7.81	5.76	28.79	48.16
***Duration (Days)**	1	2	2	2	
****Event Count**	1	2	2	2	

Description	Hydstra Station No: 802063 Discharging Sewer: SWSOOS 2S Overflow @ Sydney Airport Total Monthly Overflow Discharge (ML)	Hydstra Station No:802064 Discharging Sewer: SWSOOS 2N Overflow @ Sydney Airport Total Monthly Overflow Discharge (ML)T	Hydstra Station No: 802065 Discharging Sewer: SWSOOS 1 Overflow @ Sydney Airport Total Monthly Overflow Discharge (ML)	Hydstra Station No: 802310 Discharging Sewer: Southern Division S/M (SWSOOS) Total Monthly Overflow Discharge (ML)	Total Volume (ML)
01 Jan 2025 to 17 Jan 2025	2.37	7.12	8.39	64.17	82.06
***Duration (Days)**	4	5	5	5	
****Event Count**	2	3	3	3	
Total Volume for Period 07 Jun 2024 to 17 Jan 2025	**201.44**	**251.85**	**145.95**	**461.74**	**1060.98**
***Duration 07Jun 2024 to 17 Jan 2025**	**20**	**26**	**28**	**36**	
****Event Count 07Jun 2024 to 17 Jan 2025**	**11**	**13**	**15**	**15**	

* Consecutive days counted as one event.

**Events greater than 1 day apart are counted as separate events. Duration and Event Count Totals are Max Highest Number.

Appendix 2 - Summary of Mill Stream incident responses during the reporting period

Clean up dates	Incident Log (IL) Work Order (WO) Reference	Inspection	Clean-up	Gross pollutants removed m3	No. of bags of material removed	Syringes removed	Field Sampling & Testing Laboratory Results	Comments
3-Jun-24 to 17-Jun-24	IL02042-WO91971268	Yes	Yes	78.15	2110	4	Analytical Report 306220-Issue Date:06/10/2024-Job No: 91971268-Sampling 03/06/2024	Related Work Orders: 91971268-03/06/24-Inspection 92042562-08/06/24-Inspection 92053230-11/06/24-Inspection 92083942-16/06/24-Inspection 92089003-17/06/24-No Inspection
24-Jun-24 to 30-Jun-24	IL02144-WO92138475	Yes	Yes	21.85	590	1	Analytical Report 307466-Issue Date:27/06/2024-Job No:92138475-Sampling 23/06/2024	Related Work Orders: 92138475-23/06/24-Inspection 92139223-23/06/24-No Inspection 92148446-25/06/24-Inspection
1-Jul-24 to 13-Jul-24	IL02144-WO92138475	Yes	Refer IL02144	9.78	264	5	Analytical Report 308844-Issue Date:22/07/24-Job No:92138475-Sampling 26/07/24	Related Work Orders: 92138475-23/06/24-Inspection 92180292-01/07/24-No Inspection 92199693-02/07/24-No Inspection 92245441-04/07/24-No Inspection 92281627-06/07/24-Inspection 92336323-13/07/24-Inspection
18/07/2024	IL02244-WO92356098	Yes	Yes	0.75	20	0	Analytical Report 308852-Issue Date:22/07/24-Job No:92356098-Sampling 18/07/24	Related Work Orders: 92356098-17/07/24-Inspection



Clean up dates	Incident Log (IL) Work Order (WO) Reference	Inspection	Clean-up	Gross pollutants removed m3	No. of bags of material removed	Syringes removed	Field Sampling & Testing Laboratory Results	Comments
27-Jul-24	IL02282-WO92440042	Yes	No	N/A	N/A	N/A		IICATS Alert triggered overflow ceased WO 92440042 incident declared IL02282-28/07/24 Network Operator attended site confirmed no clean up required. Work order 92440042 & Incident log IL02282 closed. -Inspection
14-Aug-24	WO 92553077	Yes	No	N/A	N/A	N/A		IICATS Alert triggered overflow ceased-15/08/24 Network Operator attended site confirmed no clean up required. Work order 92553077 closed. -Inspection
17-Aug-24	WO 92564068	Yes	No	N/A	N/A	N/A		IICATS Alert triggered overflow ceased-17/08/24 Network Operator attended site confirmed no clean up required. Work order 92564068 closed. -Inspection
15-Sep-24	WO 92824482	Yes	No	N/A	N/A	N/A		IICATS Alert triggered overflow ceased-15/09/24 Network Operator attended site confirmed no clean up required. Work order 92824482 closed. -Inspection
28-Sept-24 to 03-Oct-24	IL02609-WO92924345	Yes	Yes	11.67	315	N/A	Analytical Report 312848-Issue Date:01/10/24-Job No:92924345-Sampling 27/09/24 Analytical Report 313048-Issue Date:04/10/24-Job No:92924345-Sampling 3/10/24	Related Work Orders: 92924345-28/09/24-Inspection

Clean up dates	Incident Log (IL) Work Order (WO) Reference	Inspection	Clean-up	Gross pollutants removed m3	No. of bags of material removed	Syringes removed	Field Sampling & Testing Laboratory Results	Comments
15-Oct-24 to 18-Oct-24	IL02657-WO93022556	Yes	Yes	4.37	118	N/A	Analytical Report 313748-Issue Date:17/10/24-Job No:93022556-Sampling 15/10/24Analytical Report 314115-Issue Date:24/10/24-Job No: 93022556-Sampling 22/10/24	Related Work Orders: 93022556-15/10/24-Inspection
18-Nov-24 to 19-Nov-24	IL02757-WO93284872	Yes	Yes	5.78	156	2	Analytical Report 315673-Issue Date:21/11/24-Job No:93284872-Sampling 18/11/24 Analytical Report 315876-Issue Date:25/11/24-Job No:93284872-Sampling 21/11/24	Related Work Orders: 93284872-18/11/24-Inspection
1-Dec-24	IL02820-WO93366077	Yes	No	N/A	N/A	N/A		IICATS Alert triggered overflow ceased-01/12/24 Incident declared IL02820-2/12/24 Network Operator attended site confirmed no material harm evident- no clean up required.IL02820 Work order 93366077 closed. -Inspection
8-Dec-24 to 10-Dec-24	IL02845-WO93431697	Yes	Yes	10.37	280	N/A	Analytical Report 316920-Issue Date 12/12/24 Job No: 93431697-Sampling 08/12/24 Analytical Report 317255-Issue date 18/12/24 Job No:93431697-Sampling 17/12/24 Analytical Report 317476-Issue date 21/12/24 Job No:93431697-Sampling 19/12/24	Related Work Orders: 93431697-08/12/24-Inspection

Clean up dates	Incident Log (IL) Work Order (WO) Reference	Inspection	Clean-up	Gross pollutants removed m3	No. of bags of material removed	Syringes removed	Field Sampling & Testing Laboratory Results	Comments
10-Jan-25 to 13-Jan-25	IL02931-WO93606696	Yes	Yes	3.15	85	N/A	Analytical Report 318423-Issue date 14/01/25 Job No:93606696-Sampling 10/01/25 Analytical Report 318882-Issue date 22/01/25 Job No:93606696-Sampling 15/01/25	Related Work Orders:93606696-10/01/25-Inspection 93616678-11/01/25-Inspection93616680-11/01/25-No Inspection
Totals for period 1 June 24 to 17 Jan 25		**18**	**8**	**145.87**	**3938**	**12**		

Appendix 3 - Dry weather sewer level daily data

Sewer level at SG0035 – minimum 6-month value highlighted in green

Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value	Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value
17/01/2025	0.8	0.9	1.2	28/12/2024	0.4	0.7	1.0
16/01/2025	1.2	1.3	1.4	27/12/2024	0.4	0.7	1.1
15/01/2025	0.6	0.8	1.3	26/12/2024	0.4	0.6	0.8
14/01/2025	0.4	0.7	1.0	25/12/2024	0.4	0.6	0.9
13/01/2025	0.4	0.7	0.8	24/12/2024	0.4	0.7	0.9
12/01/2025	0.5	0.7	1.1	23/12/2024	0.4	0.7	0.9
11/01/2025	1.1	1.2	1.3	22/12/2024	0.4	0.7	0.9
10/01/2025	0.6	0.9	1.1	21/12/2024	0.5	0.7	0.9
9/01/2025	1.0	1.2	1.3	20/12/2024	0.4	0.7	0.9
8/01/2025	0.5	0.9	1.4	19/12/2024	0.5	0.7	1.0
7/01/2025	0.8	0.9	1.1	18/12/2024	0.6	0.8	1.0
6/01/2025	0.5	0.7	0.9	17/12/2024	0.5	0.8	1.0
5/01/2025	0.4	0.7	0.9	16/12/2024	0.5	0.7	1.0
4/01/2025	0.4	0.7	0.9	15/12/2024	0.4	0.7	1.0
3/01/2025	0.4	0.7	0.8	14/12/2024	0.5	0.8	0.9
2/01/2025	0.4	0.6	0.8	13/12/2024	0.5	0.8	0.9
1/01/2025	0.4	0.6	0.8	12/12/2024	0.6	0.7	1.0
31/12/2024	0.5	0.7	0.9	11/12/2024	0.6	0.8	1.0
30/12/2024	0.4	0.6	0.9	10/12/2024	0.6	0.8	1.0
29/12/2024	0.4	0.6	0.9	10/12/2024	0.6	0.8	1.0

Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value	Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value
9/12/2024	0.5	0.7	1.0	19/11/2024	0.74	0.89	1.00
8/12/2024	0.6	0.9	1.2	18/11/2024	0.71	0.96	1.27
7/12/2024	0.7	1.1	1.4	17/11/2024	0.38	0.75	1.29
6/12/2024	0.5	0.8	1.0	16/11/2024	0.41	0.71	0.89
5/12/2024	0.6	0.8	1.0	15/11/2024	0.51	0.70	0.93
4/12/2024	0.6	0.8	1.0	14/11/2024	0.51	0.73	1.10
3/12/2024	0.6	0.9	1.1	13/11/2024	0.61	0.75	1.10
2/12/2024	0.7	0.9	1.3	12/11/2024	0.46	0.67	0.90
1/12/2024	0.6	1.0	1.3	11/11/2024	0.44	0.67	0.91
01/12/2024	1.14	1.14	1.14	10/11/2024	0.43	0.70	0.85
30/11/2024	1.14	1.23	1.30	09/11/2024	0.45	0.73	0.88
29/11/2024	0.55	0.89	1.38	08/11/2024	0.59	0.81	0.98
28/11/2024	0.49	0.71	0.97	07/11/2024	0.47	0.71	0.97
27/11/2024	0.51	0.76	1.01	06/11/2024	0.43	0.71	0.92
26/11/2024	0.45	0.71	0.94	05/11/2024	0.45	0.67	0.90
25/11/2024	0.46	0.70	0.93	04/11/2024	0.45	0.68	0.91
24/11/2024	0.42	0.70	0.91	03/11/2024	0.44	0.72	0.91
23/11/2024	0.43	0.73	0.90	02/11/2024	0.43	0.70	0.87
22/11/2024	0.49	0.71	0.90	01/11/2024	0.49	0.75	0.95
21/11/2024	0.49	0.71	0.94	31/10/2024	0.46	0.71	0.97
20/11/2024	0.55	0.75	0.96	30/10/2024	0.44	0.68	0.92

Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value	Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value
29/10/2024	0.43	0.67	0.90	08/10/2024	0.43	0.63	0.88
28/10/2024	0.44	0.67	0.90	07/10/2024	0.40	0.68	0.89
27/10/2024	0.40	0.71	0.91	06/10/2024	0.42	0.68	0.83
26/10/2024	0.44	0.74	0.89	05/10/2024	0.48	0.73	0.85
25/10/2024	0.53	0.82	1.15	04/10/2024	0.46	0.72	0.87
24/10/2024	0.47	0.69	1.07	03/10/2024	0.51	0.75	0.96
23/10/2024	0.47	0.70	0.91	02/10/2024	0.47	0.77	0.98
22/10/2024	0.48	0.70	0.92	01/10/2024	0.50	0.76	0.95
21/10/2024	0.50	0.75	0.92	30/09/2024	0.75	0.87	0.96
20/10/2024	0.45	0.77	0.93	29/09/2024	0.34	0.67	0.91
19/10/2024	0.44	0.82	1.12	29/09/2024	0.34	0.67	0.91
18/10/2024	0.35	0.68	1.14	28/09/2024	0.38	0.67	0.96
17/10/2024	0.36	0.59	0.79	27/09/2024	0.64	0.97	1.34
16/10/2024	0.36	0.60	0.83	26/09/2024	0.48	1	1.36
15/10/2024	0.60	0.83	1.30	25/09/2024	0.44	0.66	0.88
14/10/2024	0.43	0.84	1.34	24/09/2024	0.4	0.66	0.89
13/10/2024	0.39	0.66	0.90	23/09/2024	0.42	0.65	0.86
12/10/2024	0.41	0.70	0.86	22/09/2024	0.4	0.67	0.88
11/10/2024	0.44	0.68	0.89	21/09/2024	0.43	0.73	0.87
10/10/2024	0.44	0.67	0.89	20/09/2024	0.44	0.68	0.87
09/10/2024	0.44	0.68	0.85	19/09/2024	0.44	0.67	0.9

Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value	Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value
18/09/2024	0.44	0.67	0.9	28/08/2024	0.49	0.71	0.92
17/09/2024	0.44	0.7	0.9	27/08/2024	0.48	0.71	0.93
16/09/2024	0.42	0.66	0.88	26/08/2024	0.47	0.72	0.94
15/09/2024	0.39	0.67	0.89	25/08/2024	0.43	0.7	0.92
14/09/2024	0.43	0.7	0.86	24/08/2024	0.49	0.78	0.92
13/09/2024	0.44	0.67	0.88	23/08/2024	0.48	0.72	0.92
12/09/2024	0.43	0.71	0.9	22/08/2024	0.49	0.75	0.94
11/09/2024	0.44	0.67	0.89	21/08/2024	0.51	0.75	0.97
10/09/2024	0.44	0.66	0.89	20/08/2024	0.5	0.74	0.97
9/09/2024	0.44	0.67	0.9	19/08/2024	0.36	0.63	0.97
8/09/2024	0.4	0.68	0.88	18/08/2024	0.36	0.63	0.83
7/09/2024	0.44	0.73	0.85	17/08/2024	0.51	0.82	1.26
6/09/2024	0.45	0.68	0.86	16/08/2024	0.39	0.73	1.28
5/09/2024	0.45	0.67	0.91	15/08/2024	0.52	0.76	1.14
4/09/2024	0.44	0.69	0.91	14/08/2024	0.5	0.89	1.21
3/09/2024	0.44	0.68	0.91	13/08/2024	0.58	0.74	0.93
2/09/2024	0.44	0.68	0.91	12/08/2024	0.59	0.81	1.01
1/09/2024	0.87	0.87	0.87	11/08/2024	0.43	0.72	0.94
31/08/2024	0.46	0.74	0.89	10/08/2024	0.46	0.75	0.91
30/08/2024	0.46	0.71	0.91	9/08/2024	0.5	0.74	0.93
29/08/2024	0.48	0.7	0.91	8/08/2024	0.46	0.72	0.94

Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value	Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value
7/08/2024	0.47	0.75	0.95	17/07/2024	0.56	0.78	0.99
6/08/2024	0.47	0.75	0.95	16/07/2024	0.62	0.82	1.05
5/08/2024	0.45	0.74	0.94	15/07/2024	0.69	0.91	1.06
4/08/2024	0.43	0.74	0.94	14/07/2024	0.69	0.91	1.04
3/08/2024	0.46	0.77	0.92	13/07/2024	0.72	0.93	1.05
2/08/2024	0.58	0.77	0.95	12/07/2024	0.77	0.95	1.1
1/08/2024	0.5	0.77	0.95	11/07/2024	0.74	1.15	1.39
31/07/2024	0.49	0.73	0.96	10/07/2024	0.65	0.94	1.1
30/07/2024	0.51	0.78	0.97	9/07/2024	0.84	0.97	1.06
29/07/2024	0.39	0.69	0.99	8/07/2024	0.77	0.93	1.05
28/07/2024	0.41	0.7	0.89	7/07/2024	0.69	0.96	1.09
27/07/2024	0.5	0.93	1.26	6/07/2024	1.02	1.12	1.24
26/07/2024	0.64	0.89	0.99	5/07/2024	1.22	1.27	1.34
25/07/2024	0.53	0.74	0.96	4/07/2024	1.06	1.15	1.31
24/07/2024	0.53	0.79	0.97	3/07/2024	0.79	1.06	1.32
23/07/2024	0.53	0.75	1	2/07/2024	0.97	1.08	1.33
22/07/2024	0.51	0.75	1	1/07/2024	0.67	0.93	1.32
21/07/2024	0.48	0.77	0.97	30/06/2024	0.75	1.03	1.21
20/07/2024	0.51	0.81	0.96	29/06/2024	0.69	0.91	1.03
19/07/2024	0.55	0.81	0.97	28/06/2024	0.72	0.9	1.16
18/07/2024	0.55	0.8	0.99	27/06/2024	0.85	1.17	1.36

Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value	Calendar Date	Minimum Result Value	Average Result Value	Maximum Result Value
26/06/2024	0.77	1.02	1.19	5/06/2024	0.8	1.01	1.25
25/06/2024	0.85	1.04	1.23	4/06/2024	0.91	1.09	1.27
24/06/2024	0.86	1.1	1.27	3/06/2024	1.02	1.18	1.3
23/06/2024	1.2	1.29	1.34	2/06/2024	1.22	1.29	1.42
22/06/2024	0.85	1.22	1.38	1/06/2024	0.51	0.99	1.45
21/06/2024	0.63	0.88	1.06				
20/06/2024	0.69	0.89	1.11				
19/06/2024	0.75	0.95	1.12				
18/06/2024	0.84	1.01	1.25				
17/06/2024	0.9	1.11	1.27				
16/06/2024	0.97	1.17	1.29				
15/06/2024	1.21	1.3	1.36				
14/06/2024	0.69	1.02	1.37				
13/06/2024	0.76	0.92	1.12				
12/06/2024	0.76	0.95	1.13				
11/06/2024	0.8	1.01	1.22				
10/06/2024	0.78	1.06	1.25				
9/06/2024	0.79	1.05	1.21				
8/06/2024	1.2	1.28	1.33				
7/06/2024	1.22	1.28	1.34				
6/06/2024	0.96	1.25	1.36				

Appendix 4 - An overview of model compliance with condition L7.1 for each system

| System compliant (100% Licence gauges) | System compliant (>75% Licence gauges) | System non-compliant

Sewage Treatment System	System Licensed Gauges	Gauges Meeting Acceptance Criteria	Last Recalibrated Year	Compliance with L7.1c Condition
Bombo (EPL 2269	2	2	2024	|
Bondi (EPL 1688)	9	9	2021	|
Brooklyn (EPL 12438)	1	1	2021	|
Castle Hill (EPL 1725)	2	2	2024	|
Cronulla (EPL 1728)	6	5	2020	|
Hornsby Heights (EPL 750)	2	2	2022	|
Malabar (EPL 372)	34	28	2023	|
North Head (EPL 378)	32	26	2022	|
North Richmond (EPL 190)	1	1	2024	|
Penrith (EPL 1409)	4	3	2024	|
Picton (EPL 10555)	3	3	2024	|
Quakers Hill (EPL 1724)	3	3	2024	|
Richmond (EPL 1726)	1	1	2021	|
Riverstone (EPL 1796)	1	1	2023	|
Rouse Hill (EPL 4965)	3	3	2022	|
Shellharbour (EPL 211)	2	2	2023	|
St Marys (EPL 1729)	5	4	2022	|
Wallacia (EPL 12235)	1	1	2021	|
Warriewood (EPL 1784)	4	4	2024	|
West Camden (EPL 1675)	3	3	2024	|

Appendix 5 – Overflow Performance Reporting June 2024 to Dec 2024 Mill Stream Monthly Wastewater Level to Overflow Discharge Plots

Appendix 6 - Sydney Water Environmental Response Analytical Reports 3 June 2024 to 15 January 2025

Appendix 7 – Overflow Performance Reporting June 2024 to Dec 2024



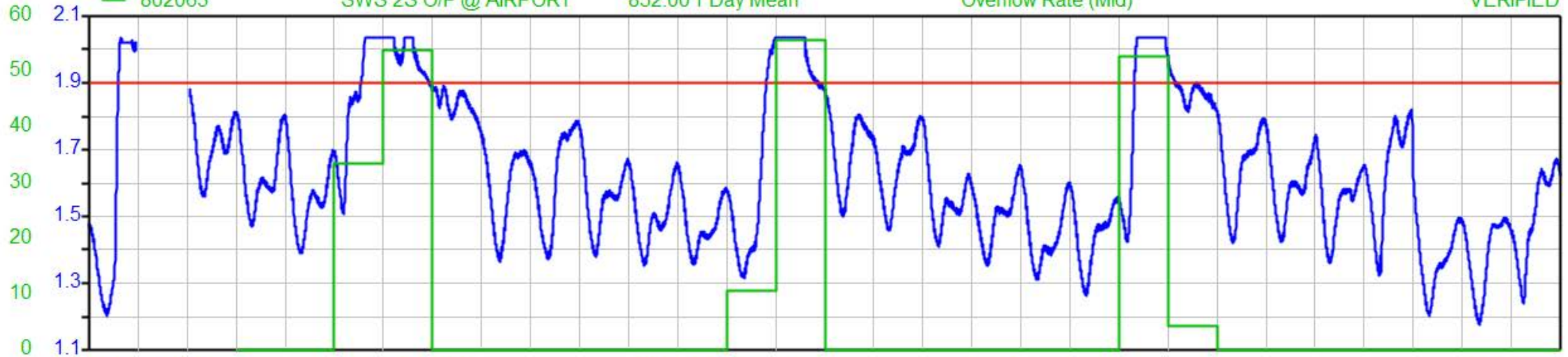
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

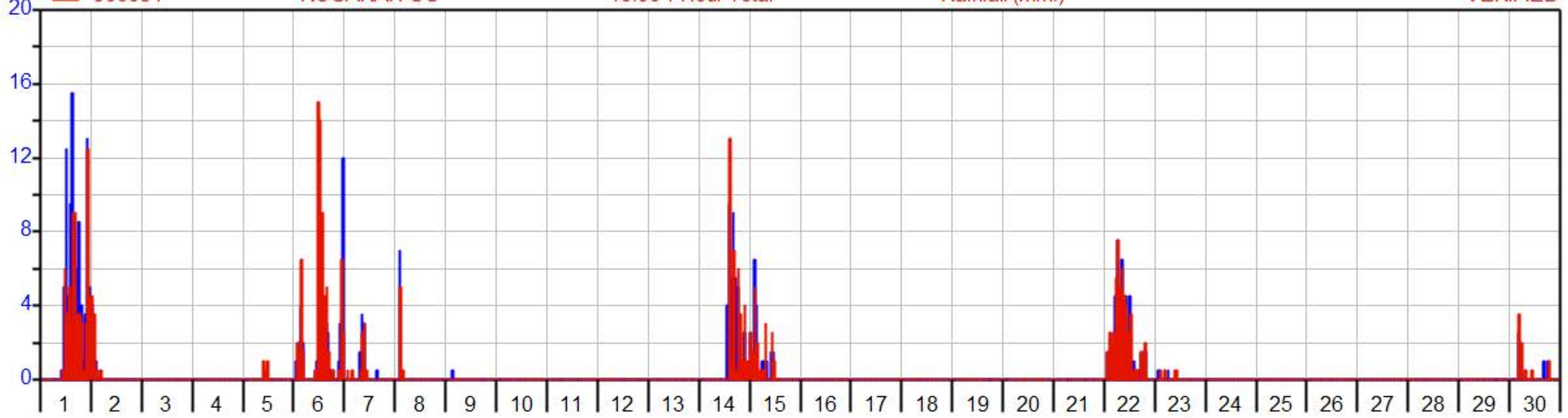
Period 1 Month 01/06/2024 to 01/07/2024

2024

802063	SWS 2S O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



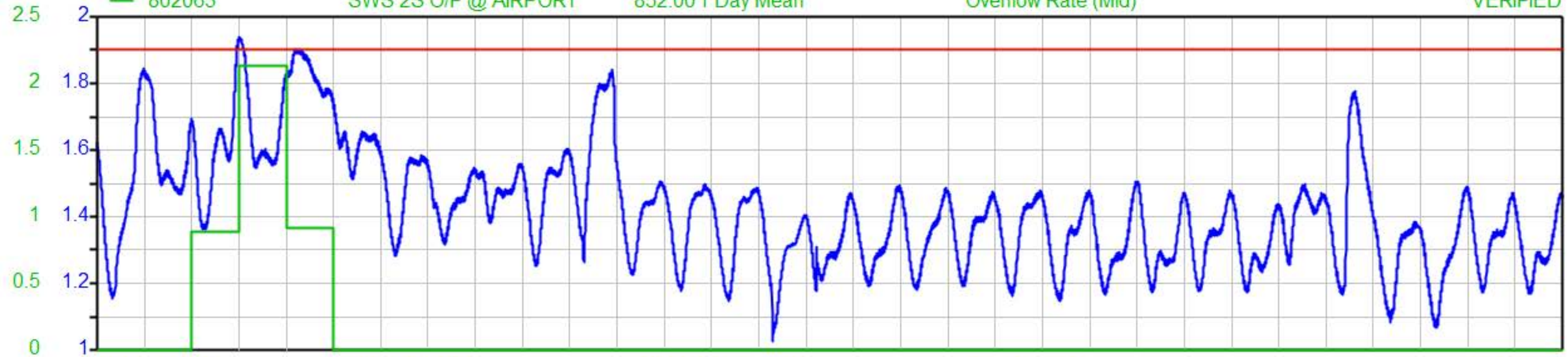
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

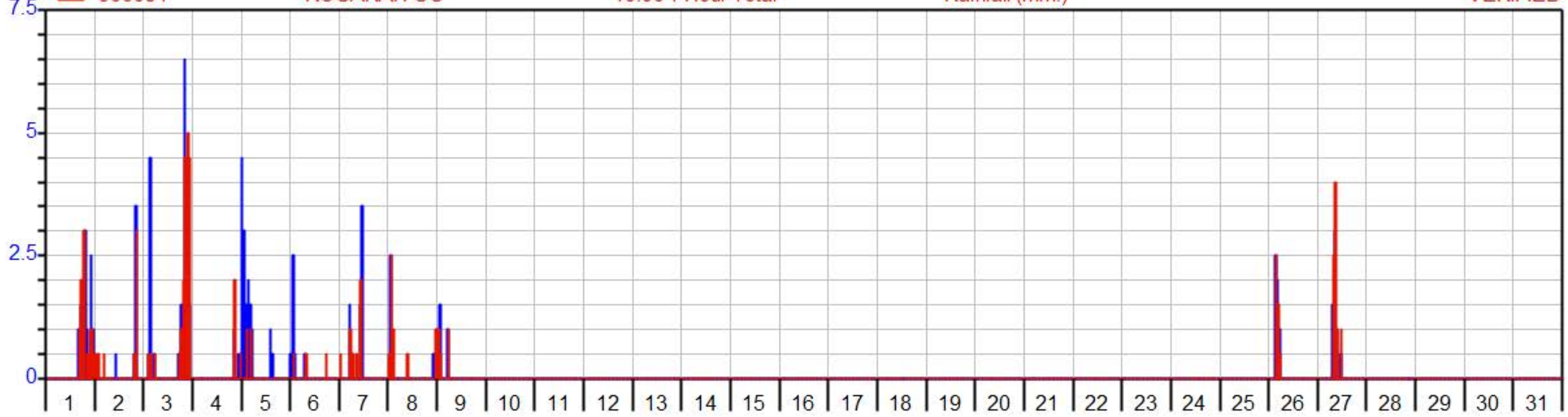
Period 1 Month 01/07/2024 to 01/08/2024

2024

802063	SWS 2S O/F @ AIRPORT	170.00	Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00	1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00	1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED



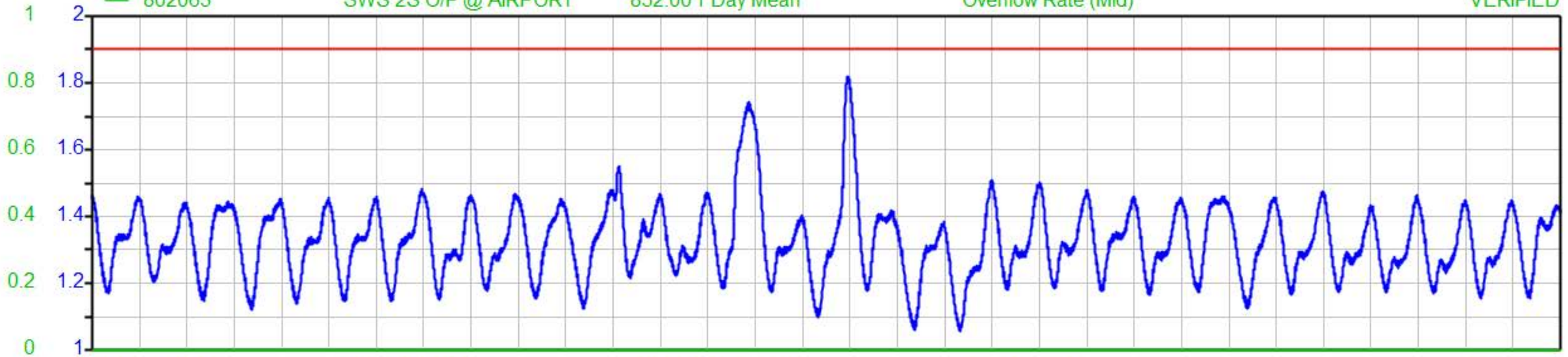
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

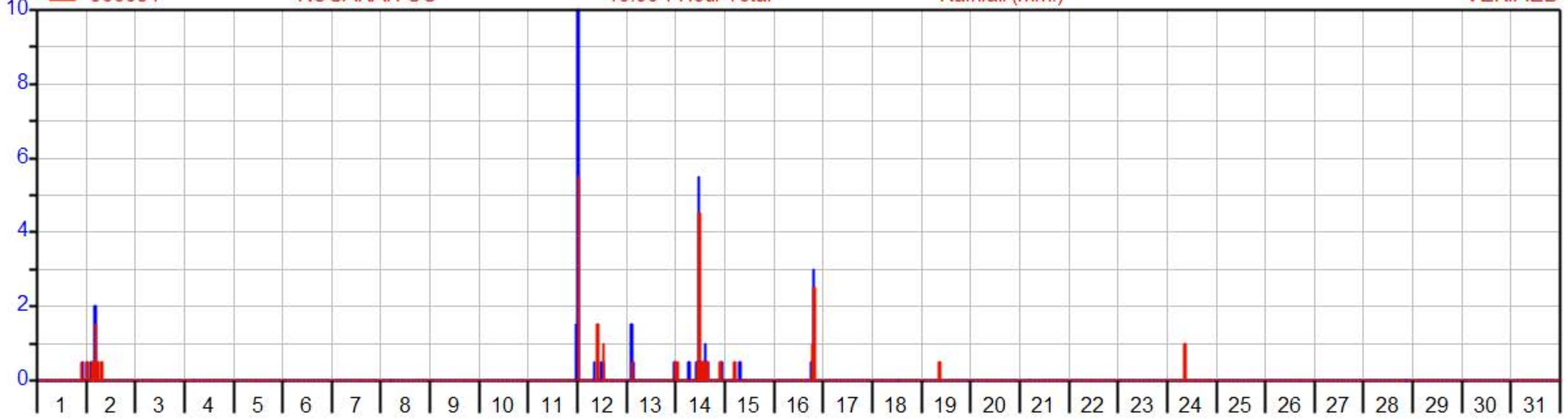
Period 1 Month 01/08/2024 to 01/09/2024

2024

802063	SWS 2S O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



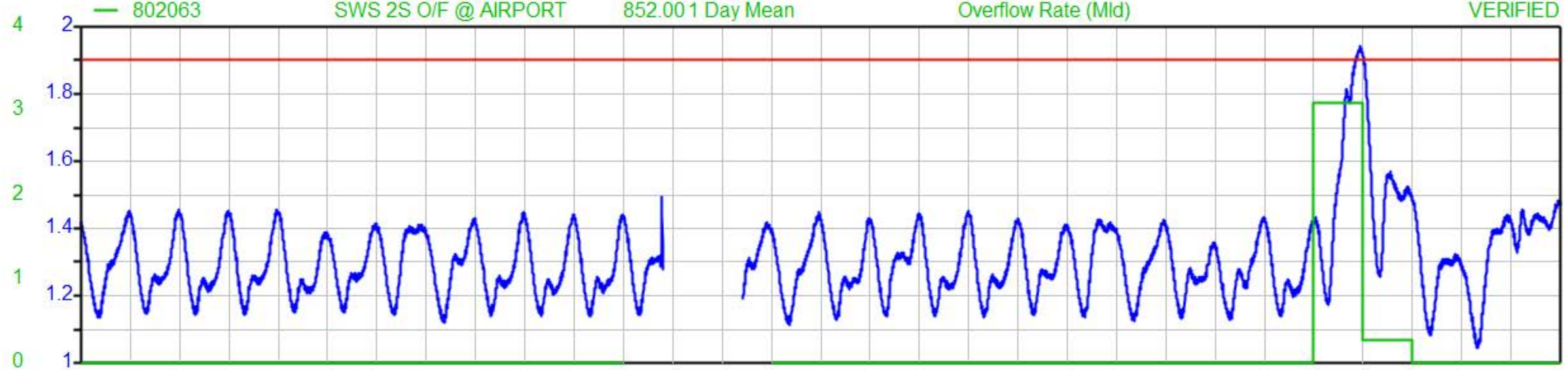
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

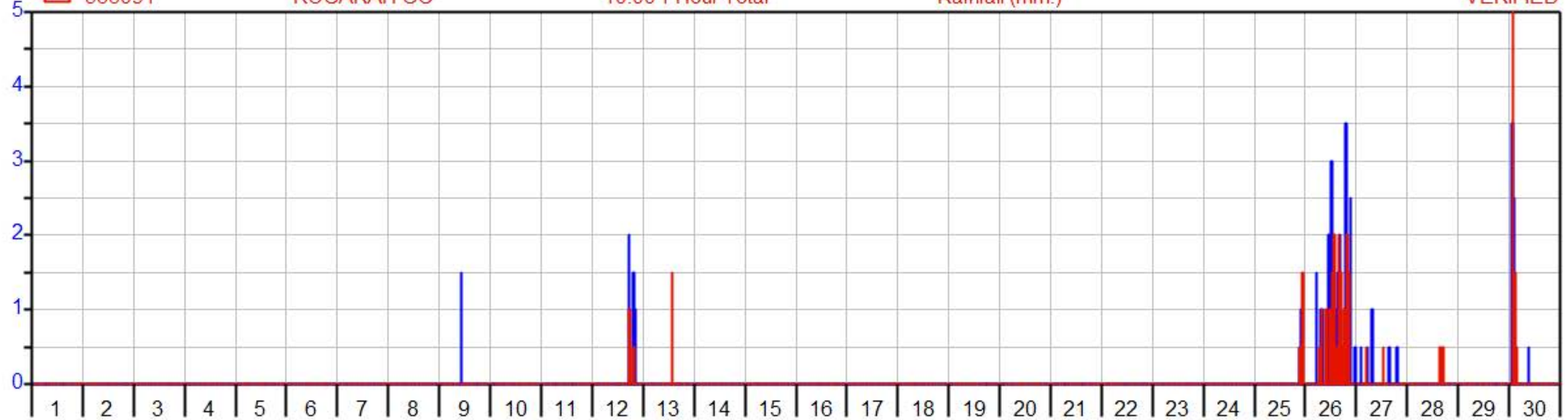
Period 1 Month 01/09/2024 to 01/10/2024

2024

802063	SWS 2S O/F @ AIRPORT	170.00	Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00	1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00	1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED



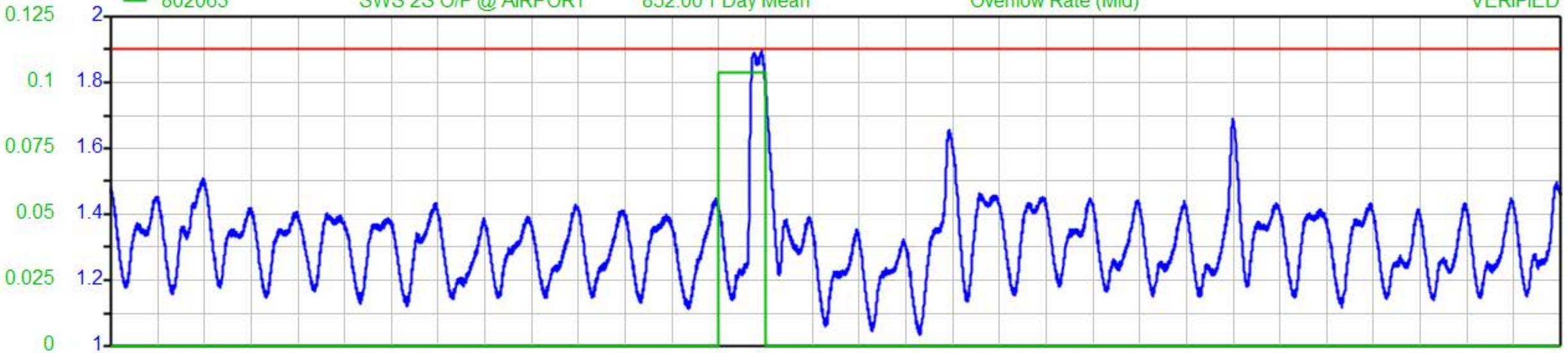
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

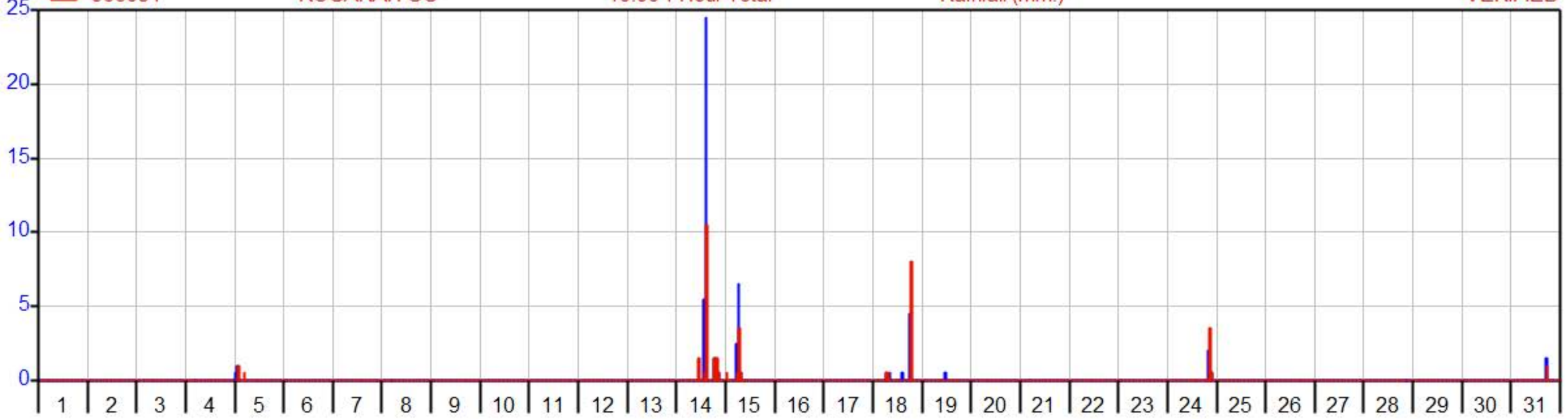
Period 1 Month 01/10/2024 to 01/11/2024

2024

802063	SWS 2S O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



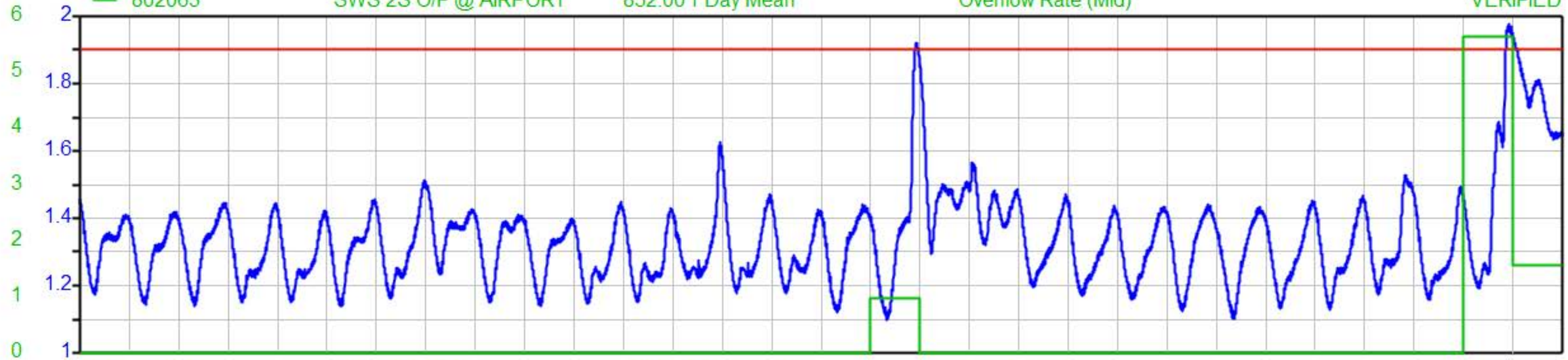
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

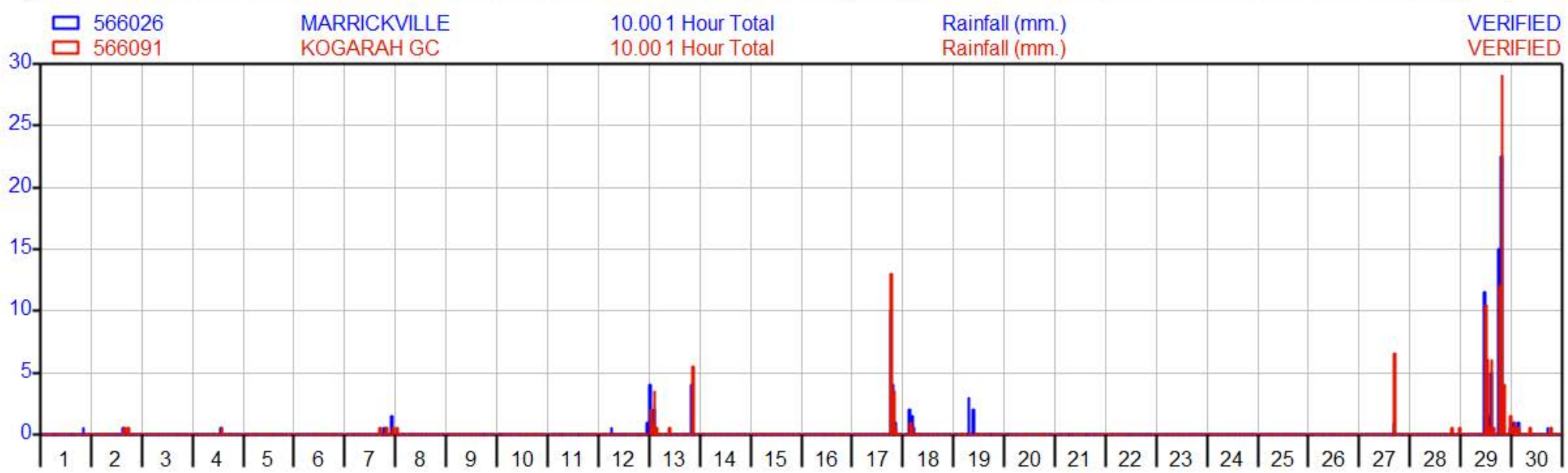
Period 1 Month 01/11/2024 to 01/12/2024

2024

802063	SWS 2S O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



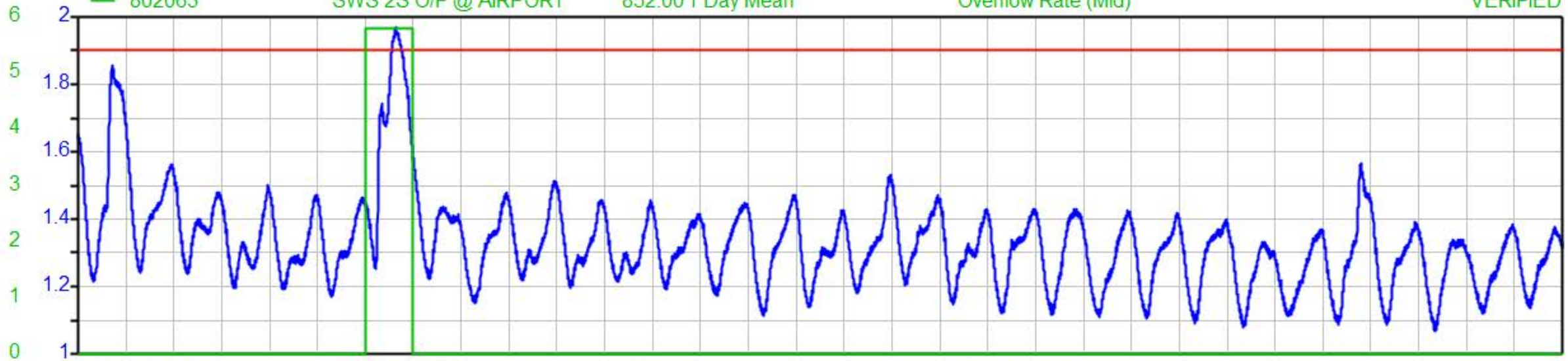
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

Period 1 Month 01/12/2024 to 01/01/2025

2024

802063	SWS 2S O/F @ AIRPORT	170.00	Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00	1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00	1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED



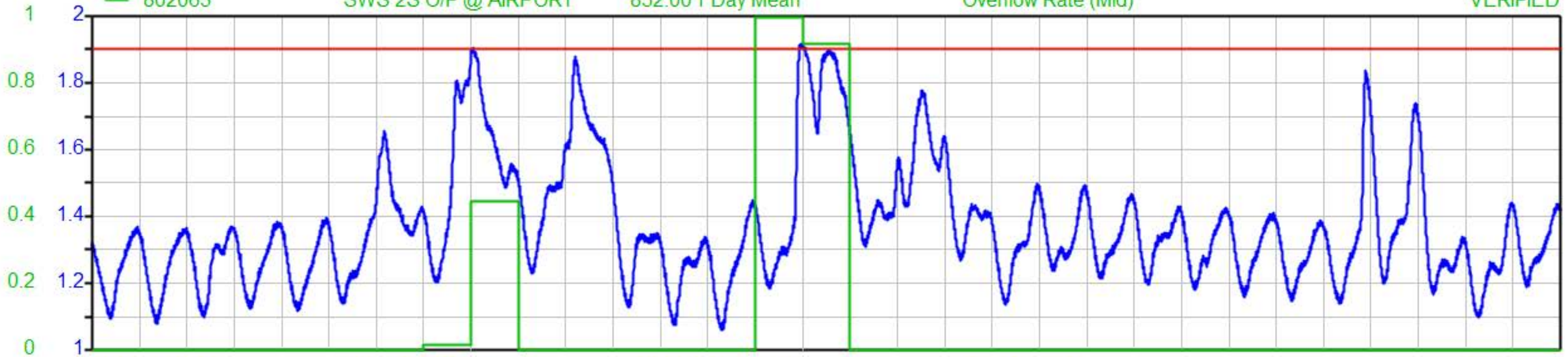
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

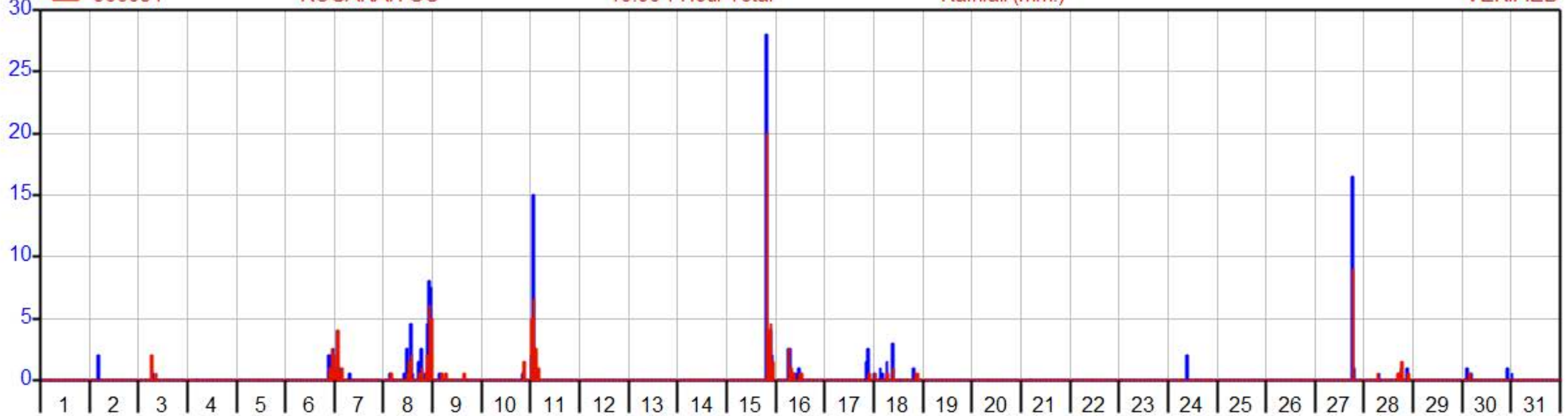
Period 1 Month 01/01/2025 to 01/02/2025

2025

802063	SWS 2S O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802063	SWS 2S O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802063	SWS 2S O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



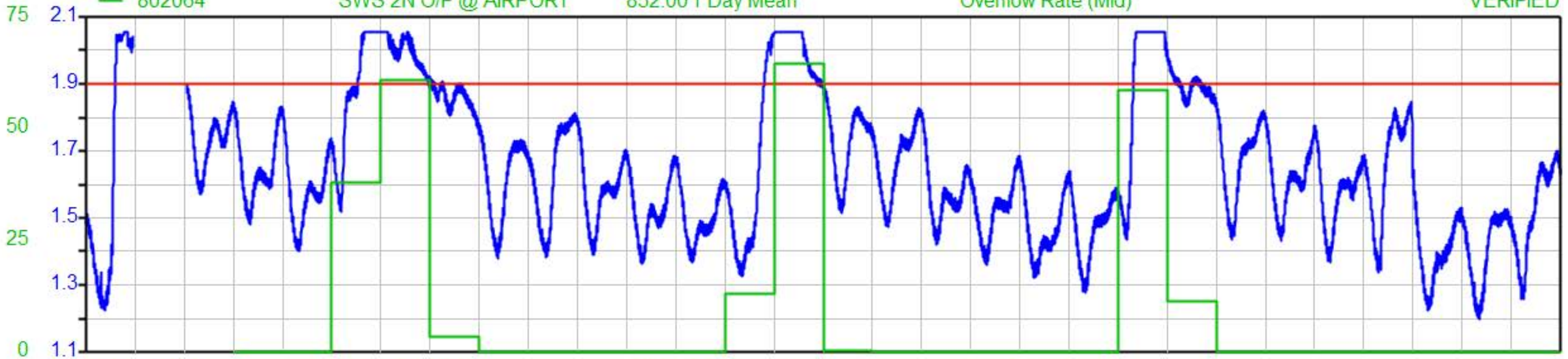
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

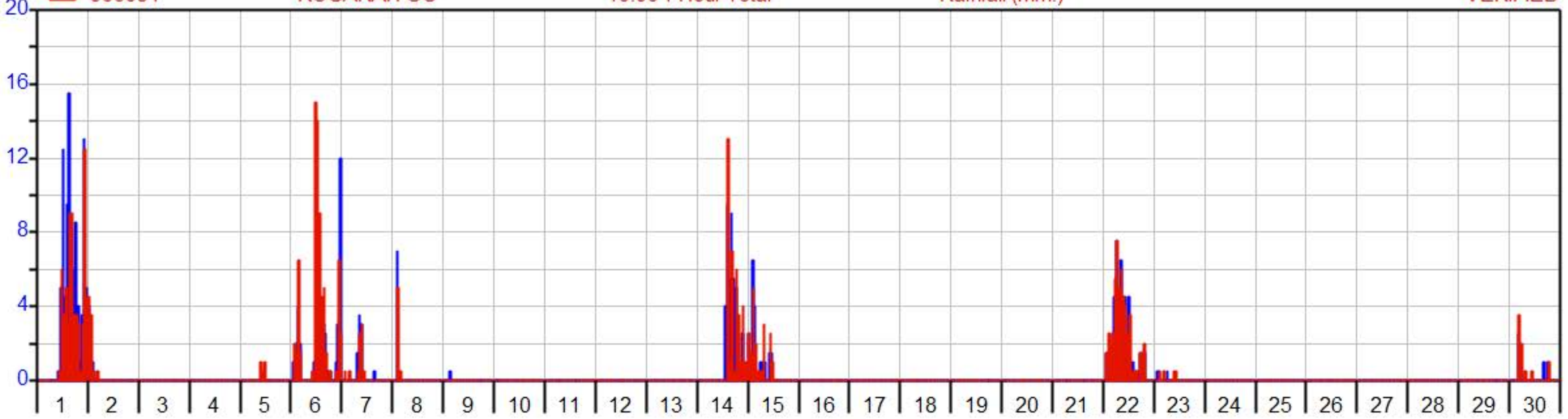
Period 1 Month 01/06/2024 to 01/07/2024

2024

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802064	SWS 2N O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



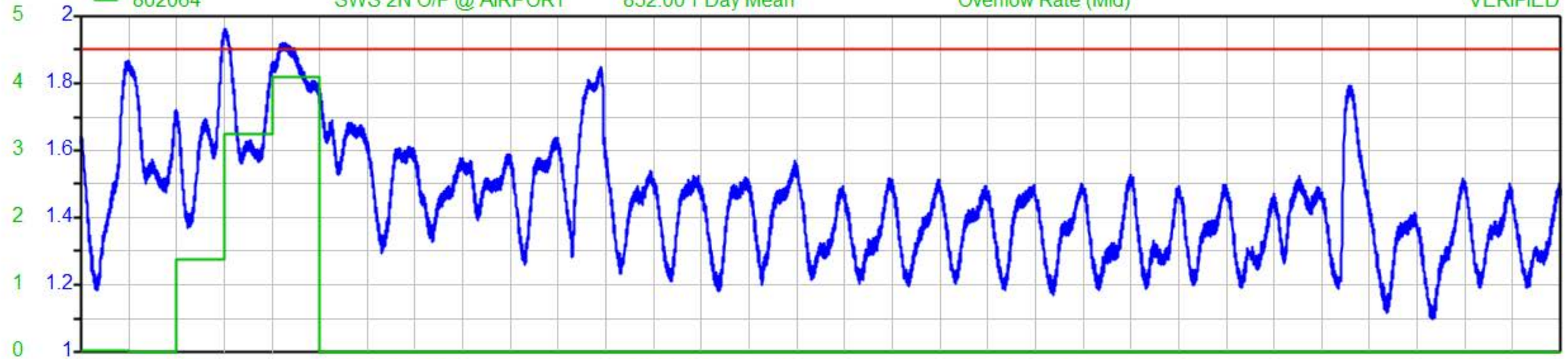
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

Period 1 Month 01/07/2024 to 01/08/2024

2024

802064	SWS 2N O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802064	SWS 2N O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



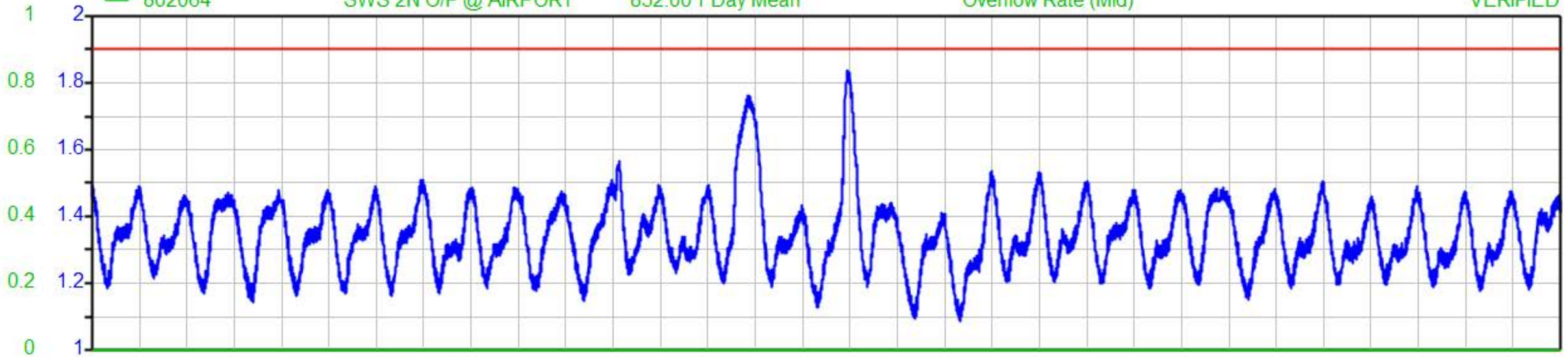
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

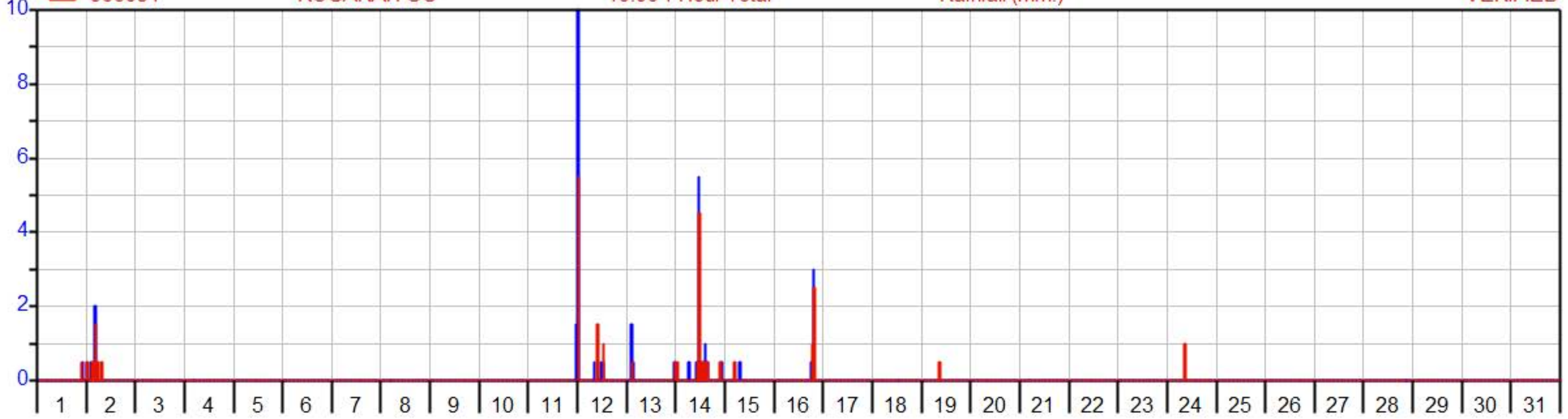
Period 1 Month 01/08/2024 to 01/09/2024

2024

802064	SWS 2N O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802064	SWS 2N O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



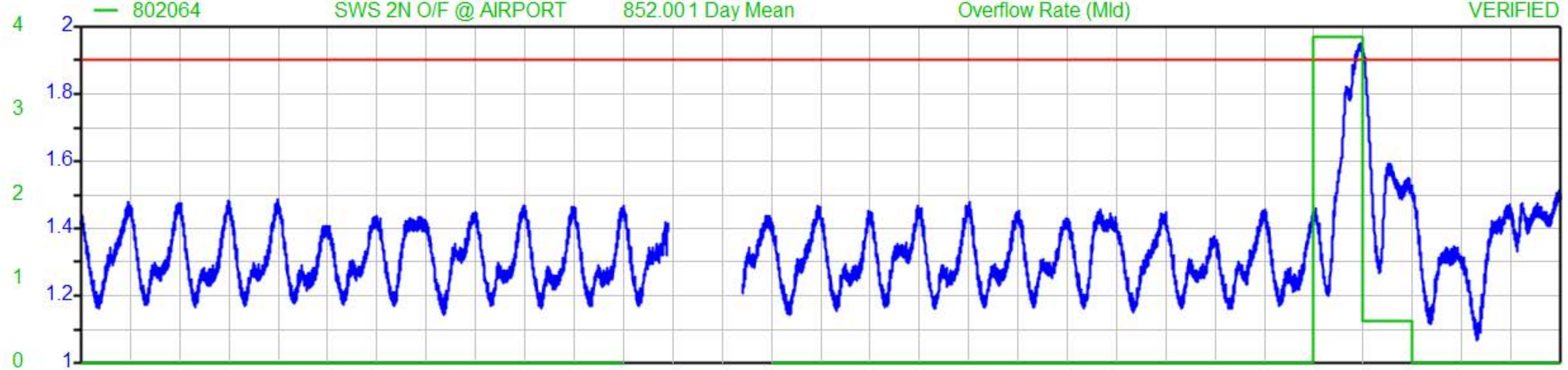
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

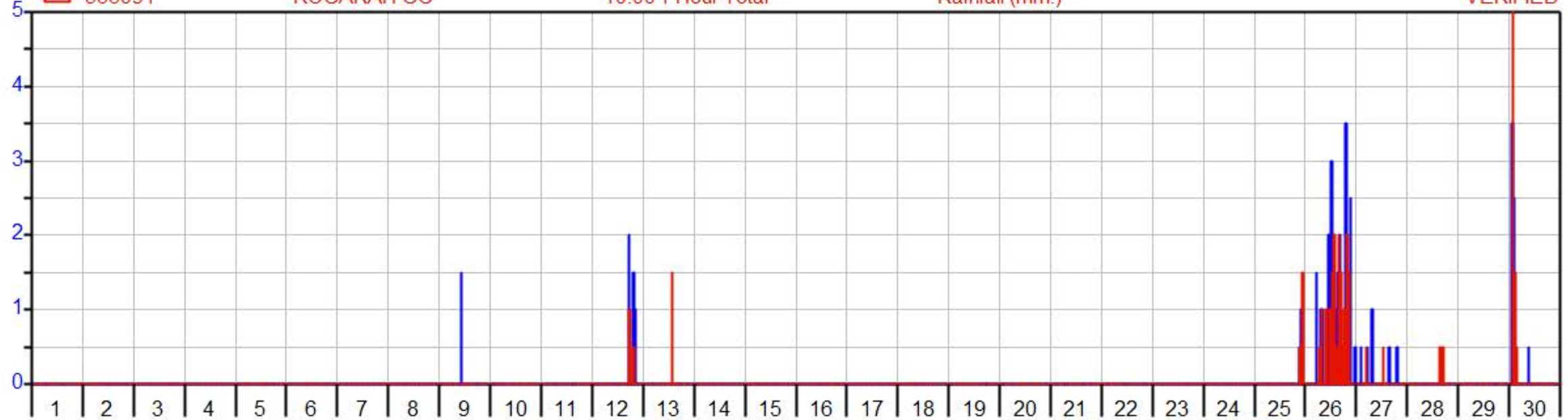
Period 1 Month 01/09/2024 to 01/10/2024

2024

802064	SWS 2N O/F @ AIRPORT	170.00	Stored trace	Level (Metres)	VERIFIED
802064	SWS 2N O/F @ AIRPORT	170.00	1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00	1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED



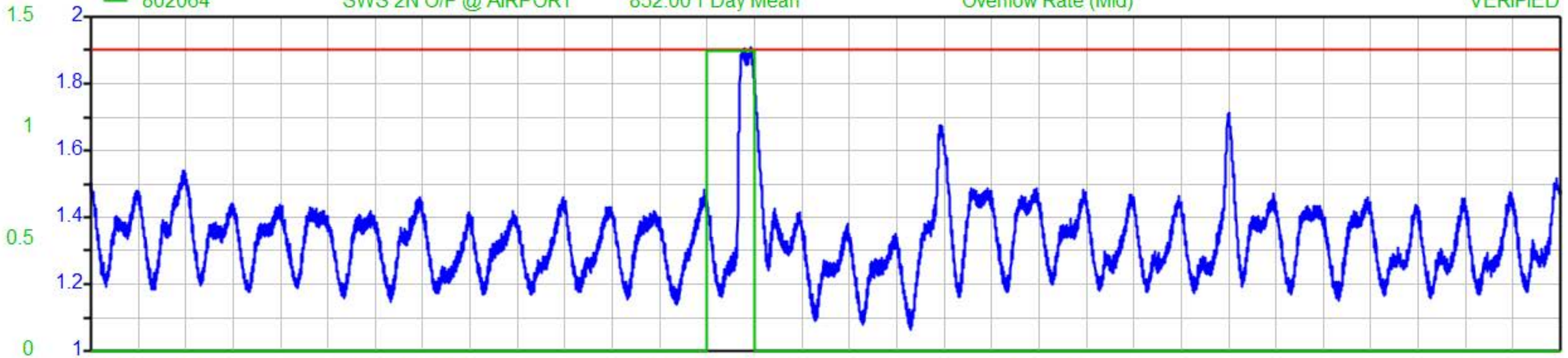
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

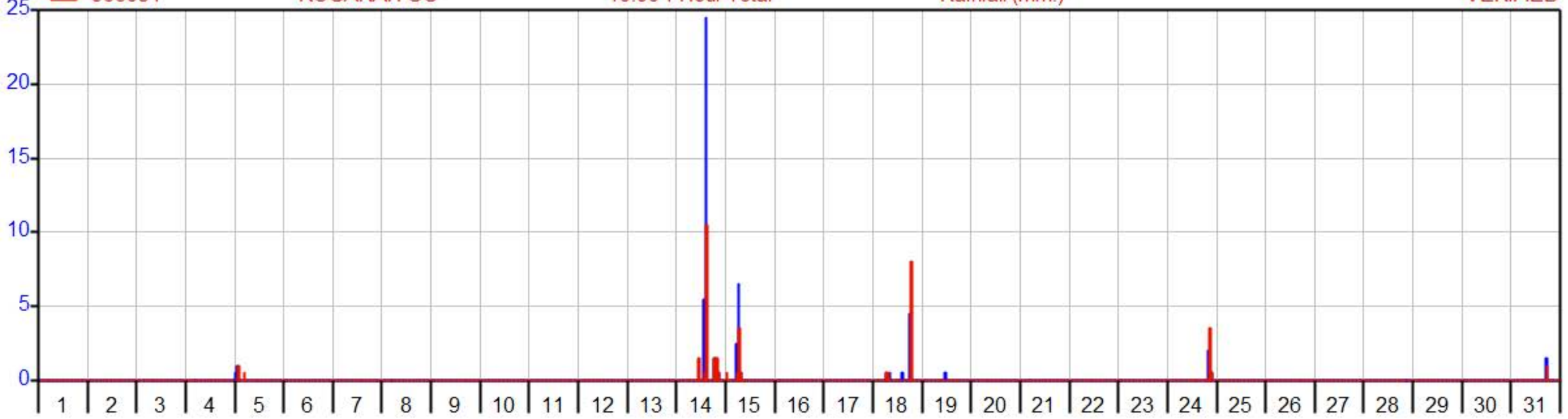
Period 1 Month 01/10/2024 to 01/11/2024

2024

802064	SWS 2N O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802064	SWS 2N O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



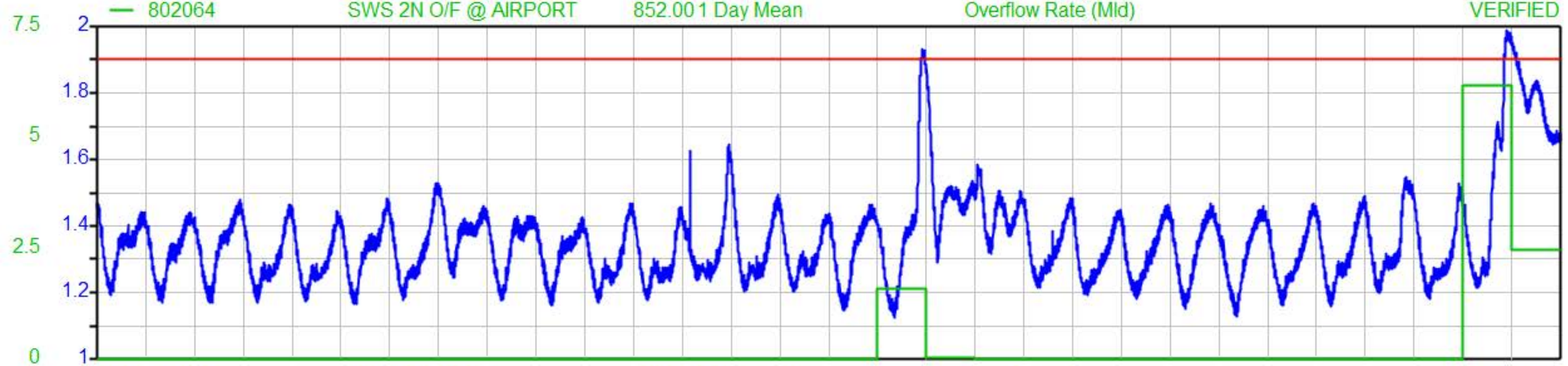
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

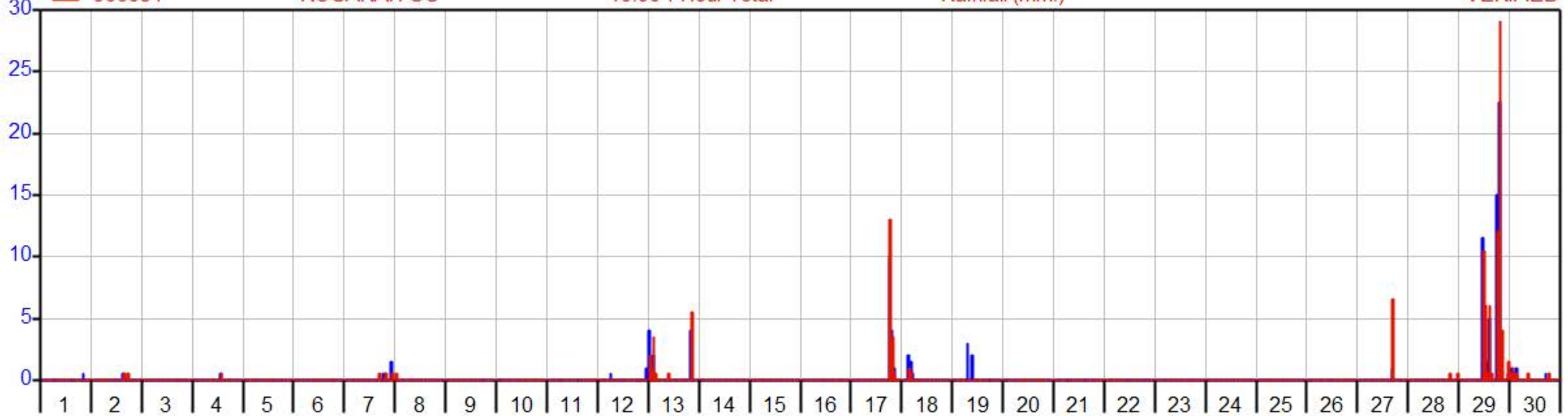
Period 1 Month 01/11/2024 to 01/12/2024

2024

802064	SWS 2N O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802064	SWS 2N O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



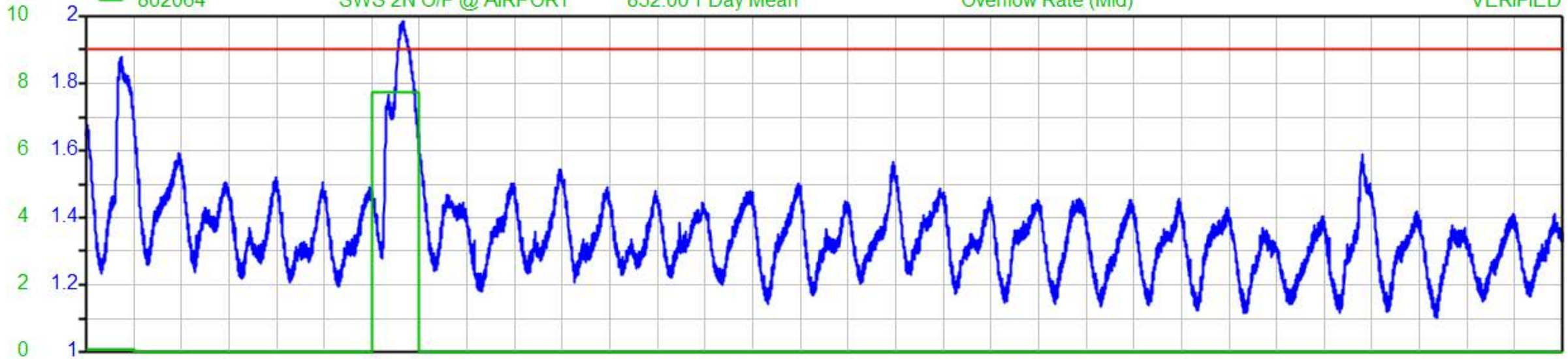
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

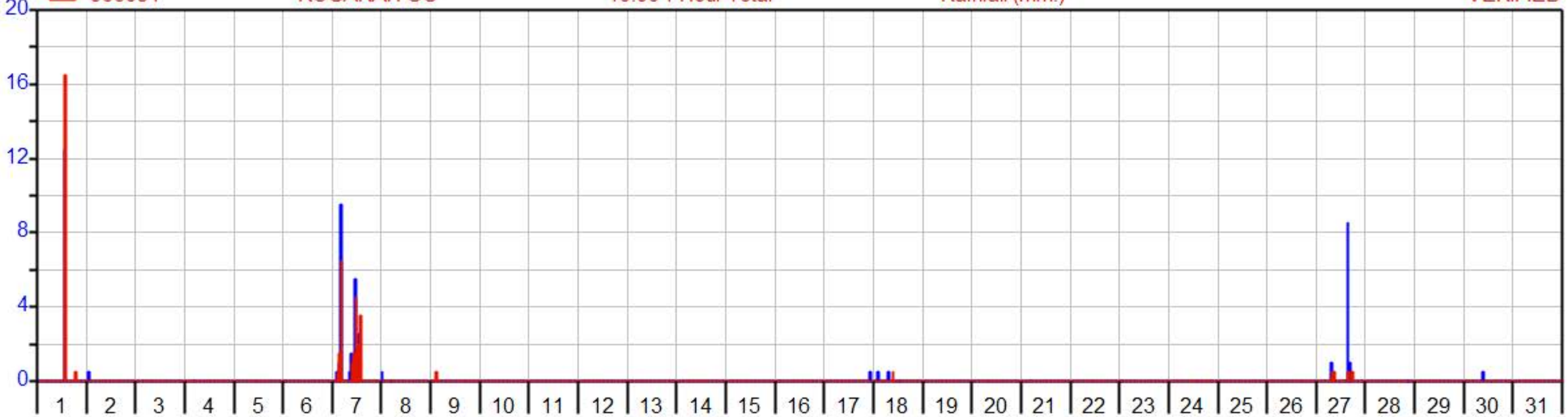
Period 1 Month 01/12/2024 to 01/01/2025

2024

802064	SWS 2N O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802064	SWS 2N O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



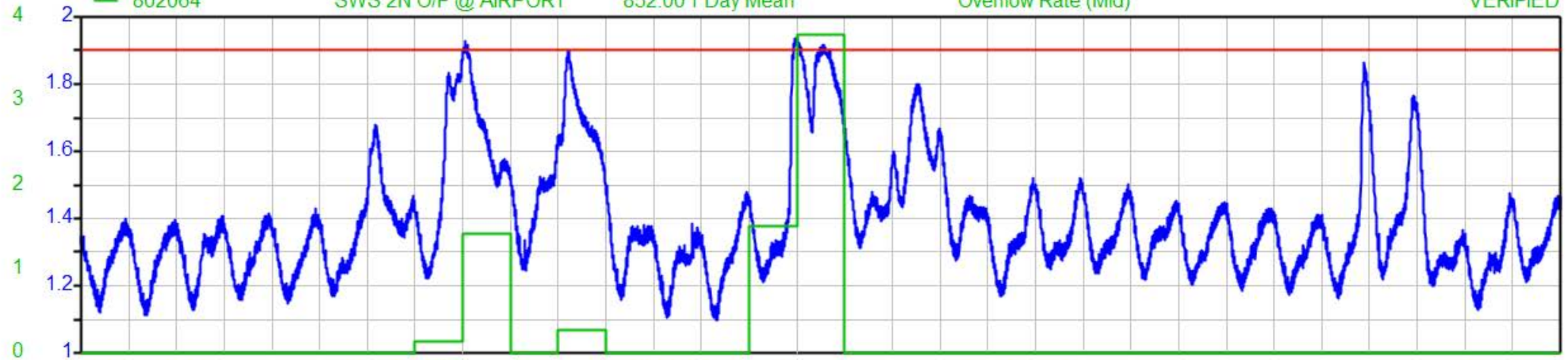
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

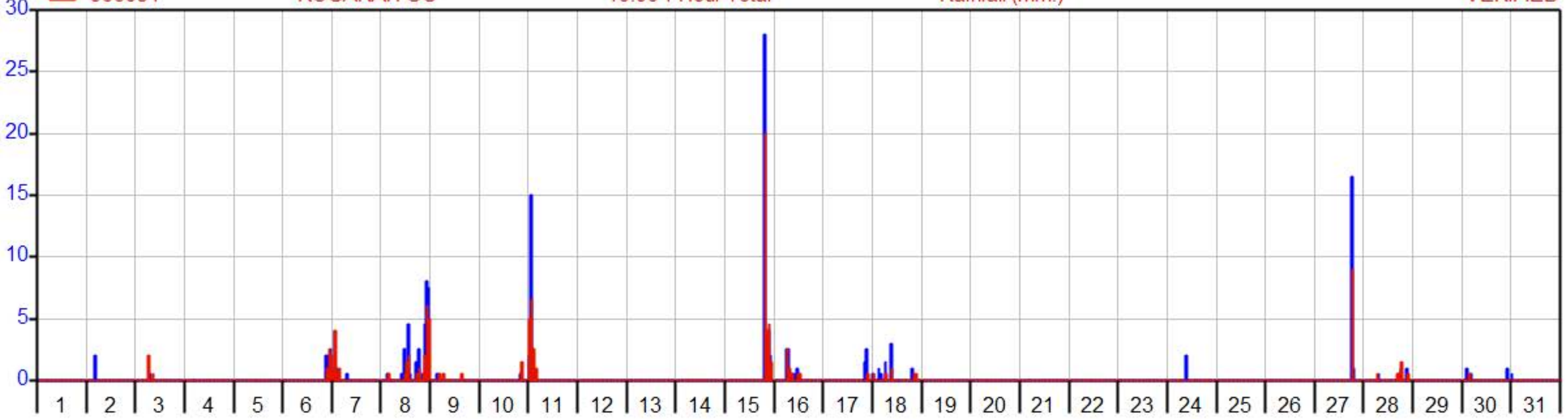
Period 1 Month 01/01/2025 to 01/02/2025

2025

802064	SWS 2N O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802064	SWS 2N O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802064	SWS 2N O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

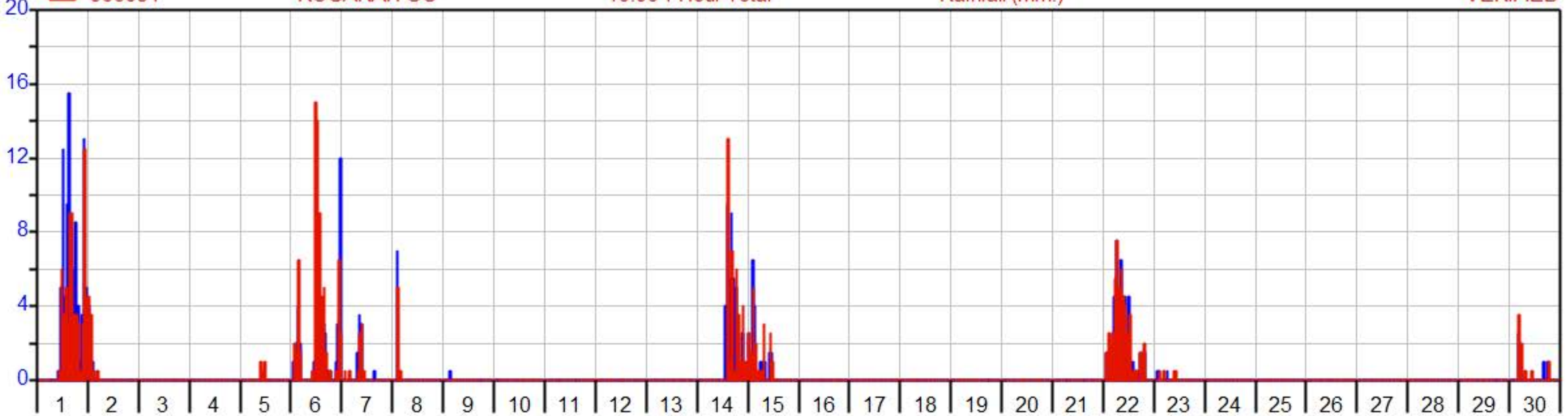
Period 1 Month 01/06/2024 to 01/07/2024

2024

802065	SWS 1 O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



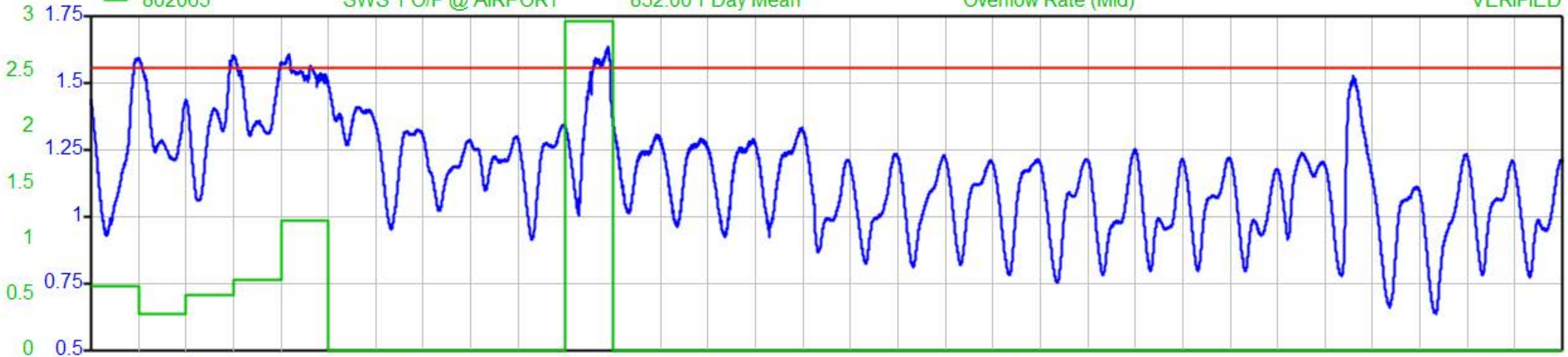
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

Period 1 Month 01/07/2024 to 01/08/2024

2024

802065	SWS 1 O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

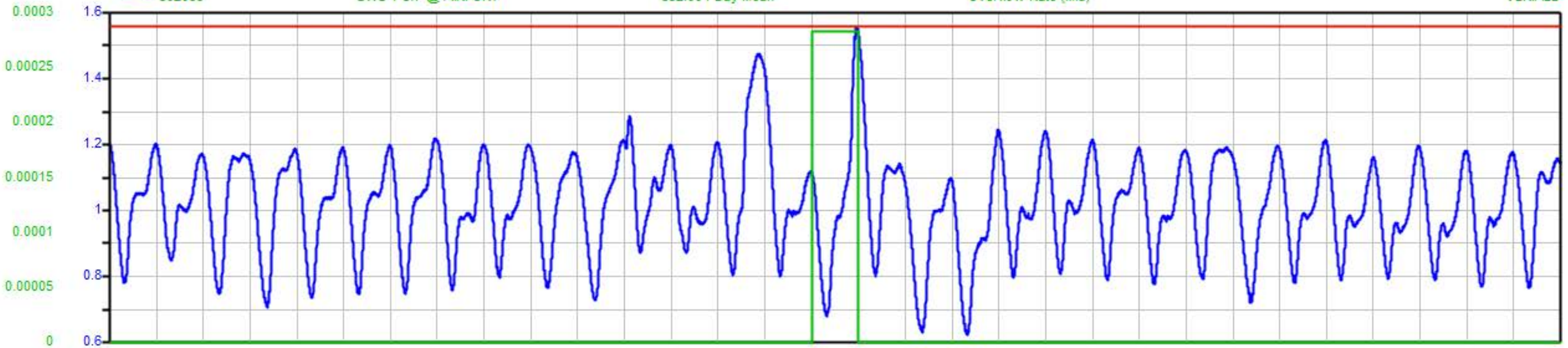


Sydney Water Hydrometric Services

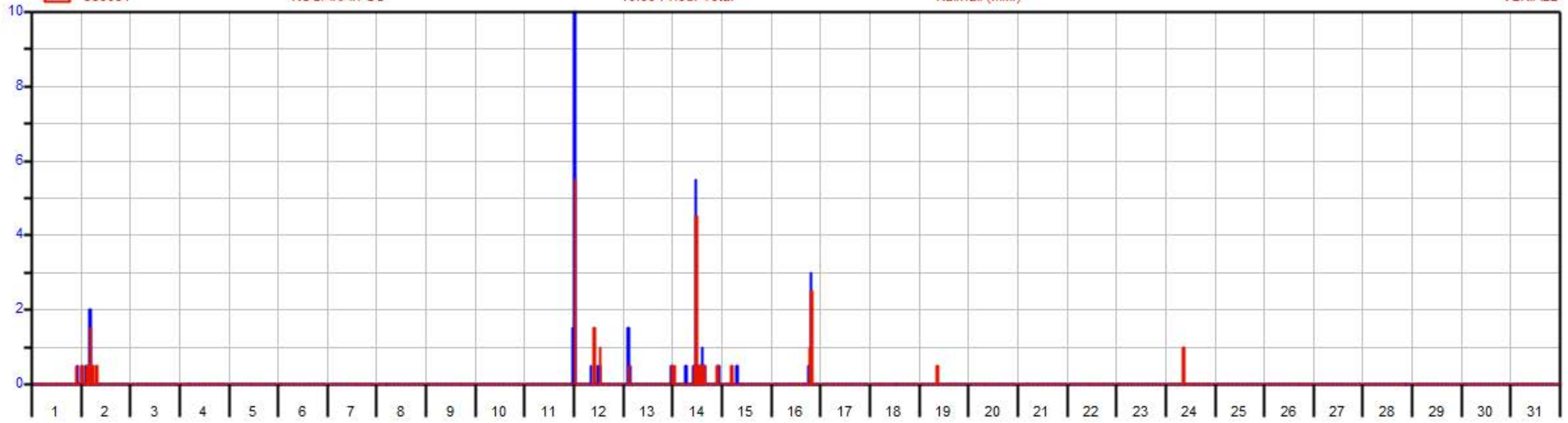
HYPLOT V134 Output 13/02/2025

Period 1 Month 01/08/2024 to 01/09/2024 2024

802065	SWS 1 O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.001 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.001 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.001 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.001 Hour Total	Rainfall (mm.)	VERIFIED



Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

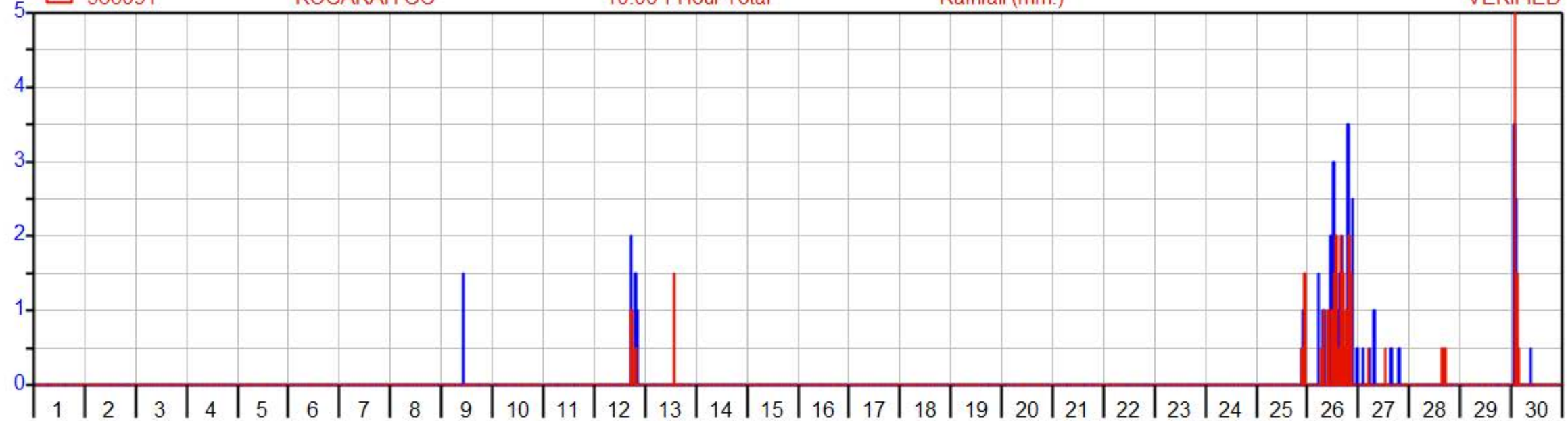
Period 1 Month 01/09/2024 to 01/10/2024

2024

802065	SWS 1 O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



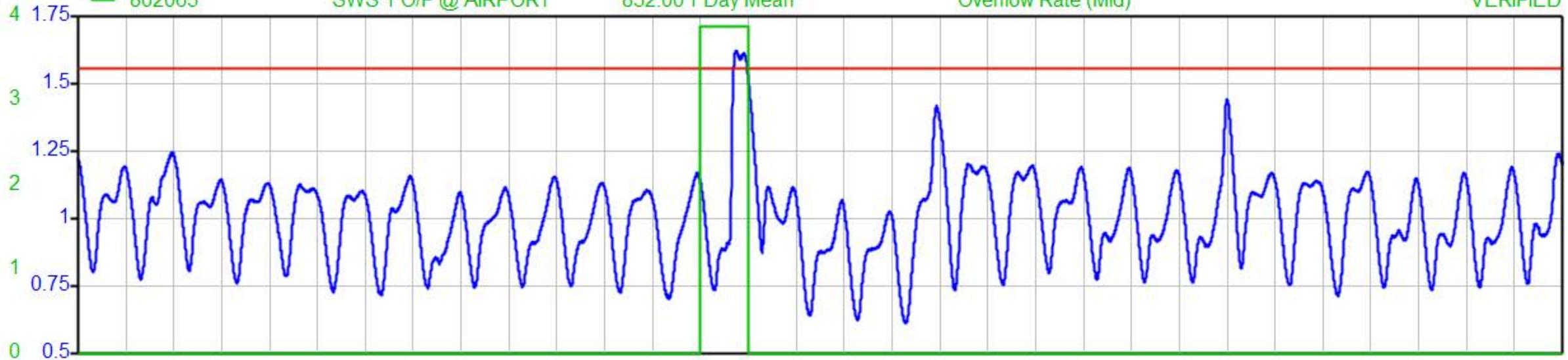
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

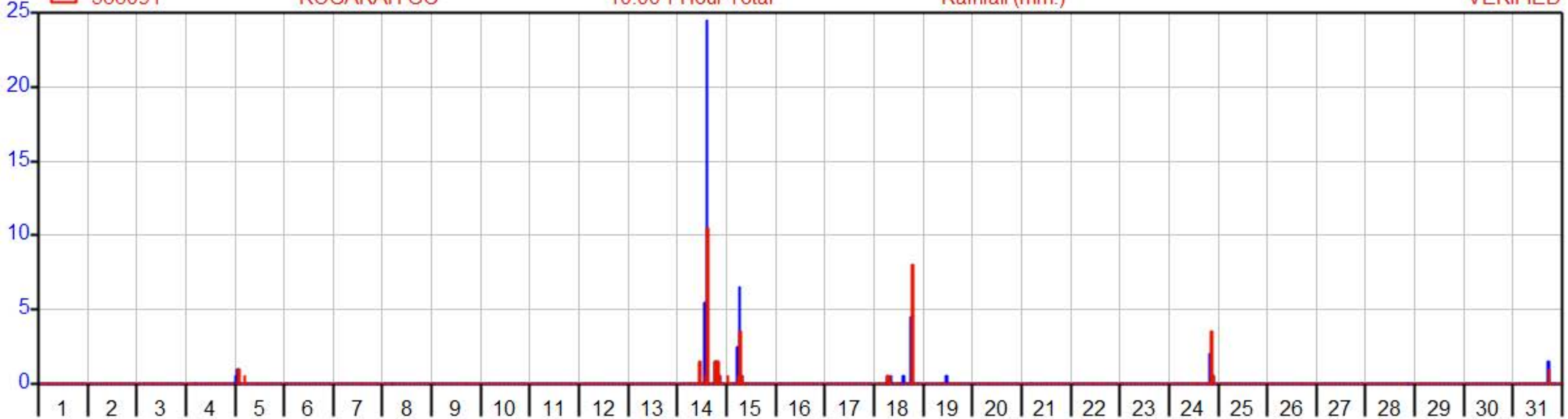
Period 1 Month 01/10/2024 to 01/11/2024

2024

802065	SWS 1 O/F @ AIRPORT	170.00	Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.00	1 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.00	1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00	1 Hour Total	Rainfall (mm.)	VERIFIED



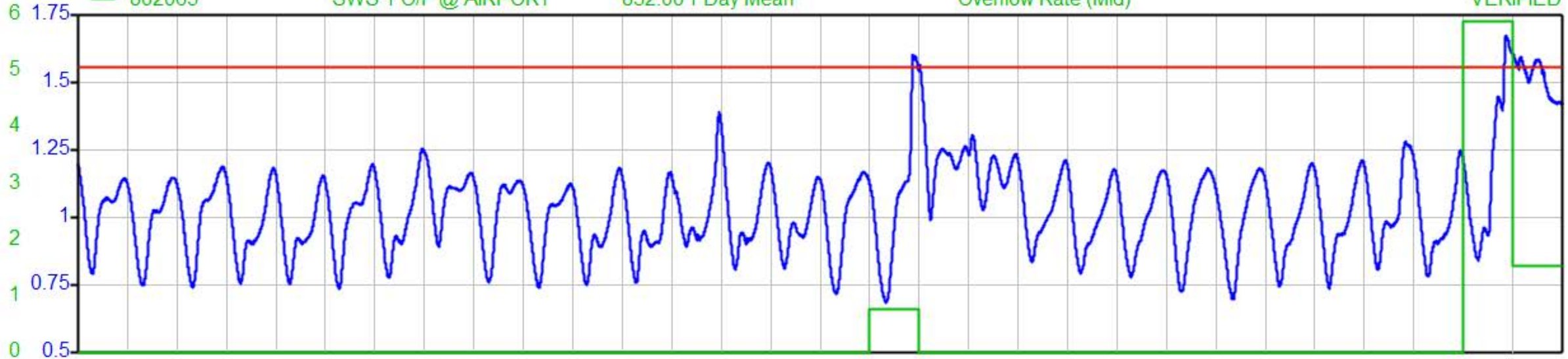
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

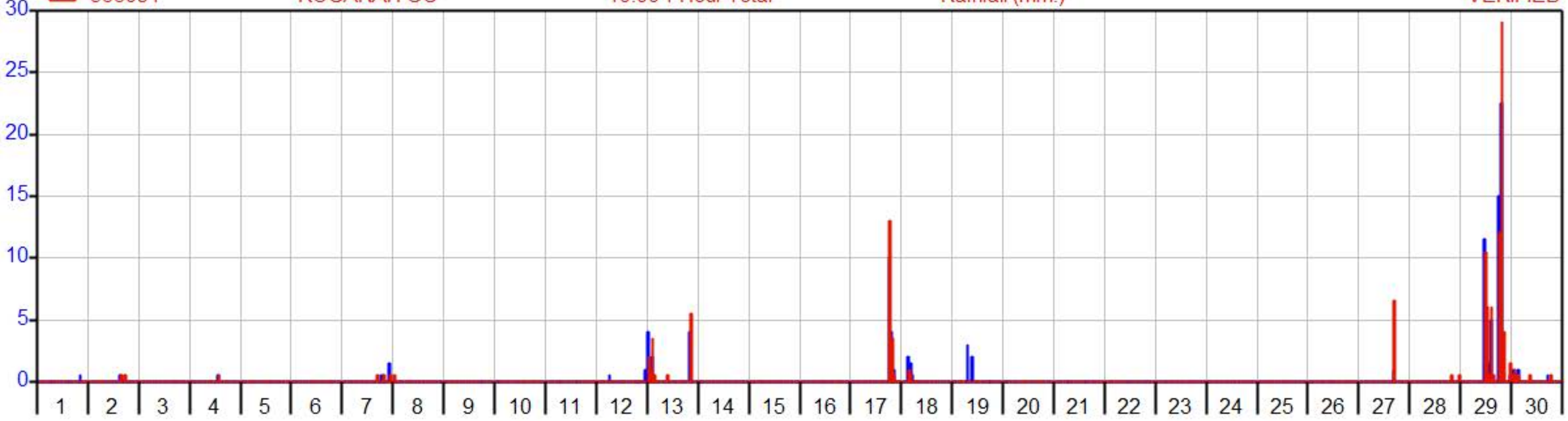
Period 1 Month 01/11/2024 to 01/12/2024

2024

802065	SWS 1 O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



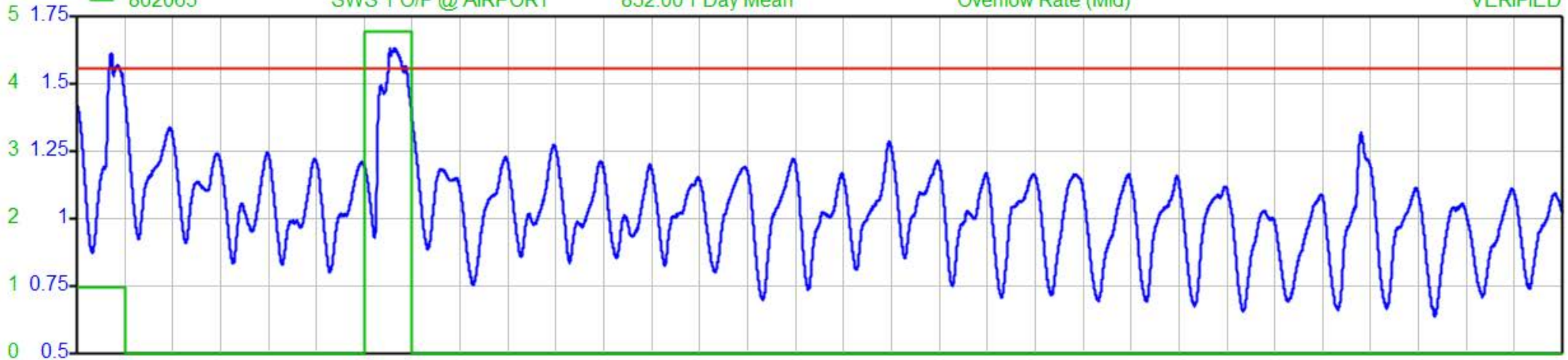
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

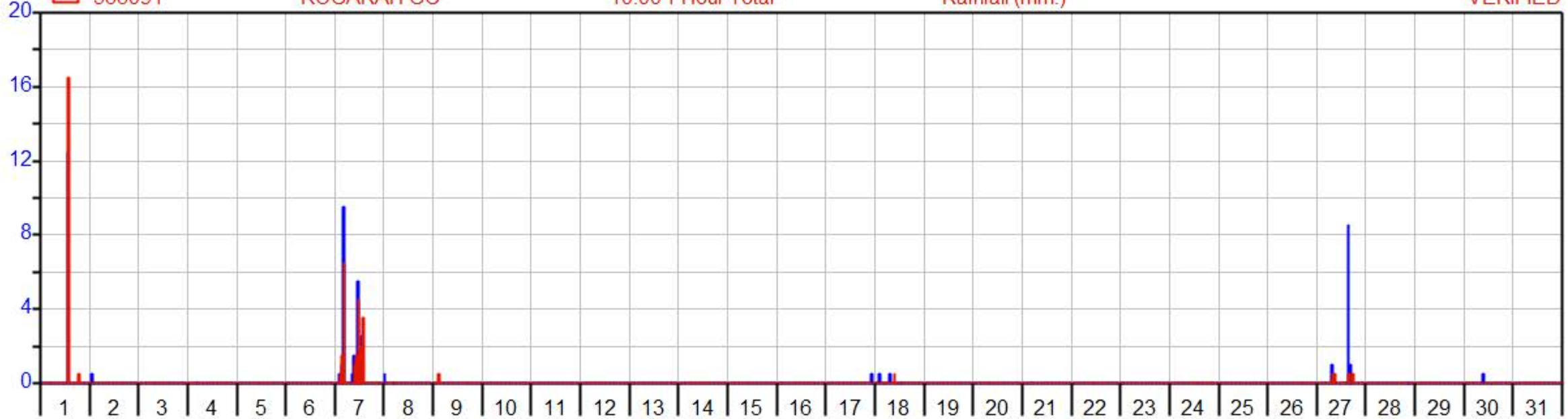
Period 1 Month 01/12/2024 to 01/01/2025

2024

802065	SWS 1 O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

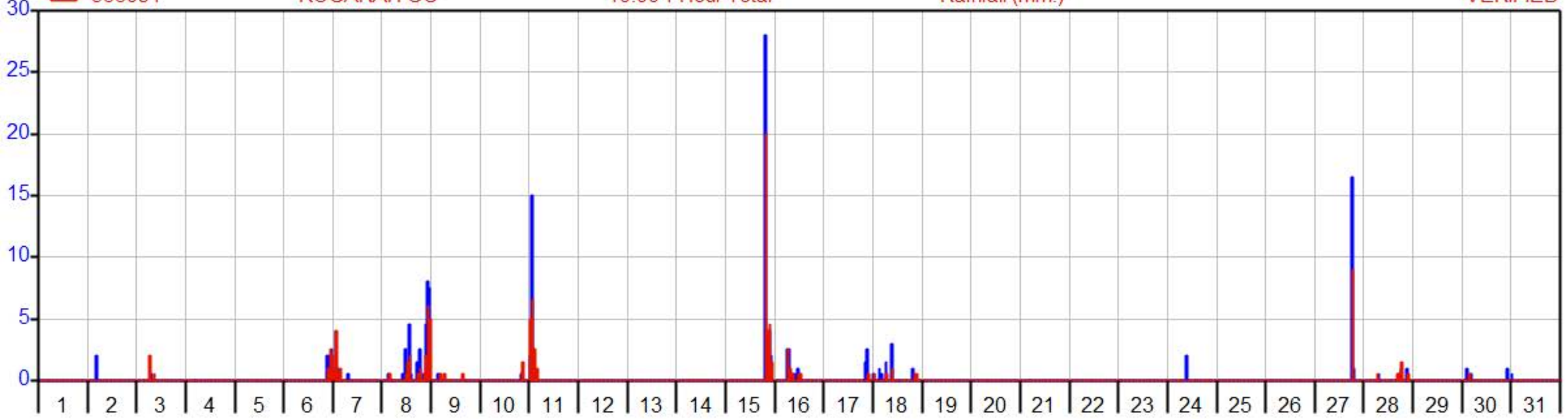
Period 1 Month 01/01/2025 to 01/02/2025

2025

802065	SWS 1 O/F @ AIRPORT	170.00 Stored trace	Level (Metres)	VERIFIED
802065	SWS 1 O/F @ AIRPORT	170.00 1 Day Mean	Level (Metres)	OF
802065	SWS 1 O/F @ AIRPORT	852.00 1 Day Mean	Overflow Rate (Mld)	VERIFIED



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

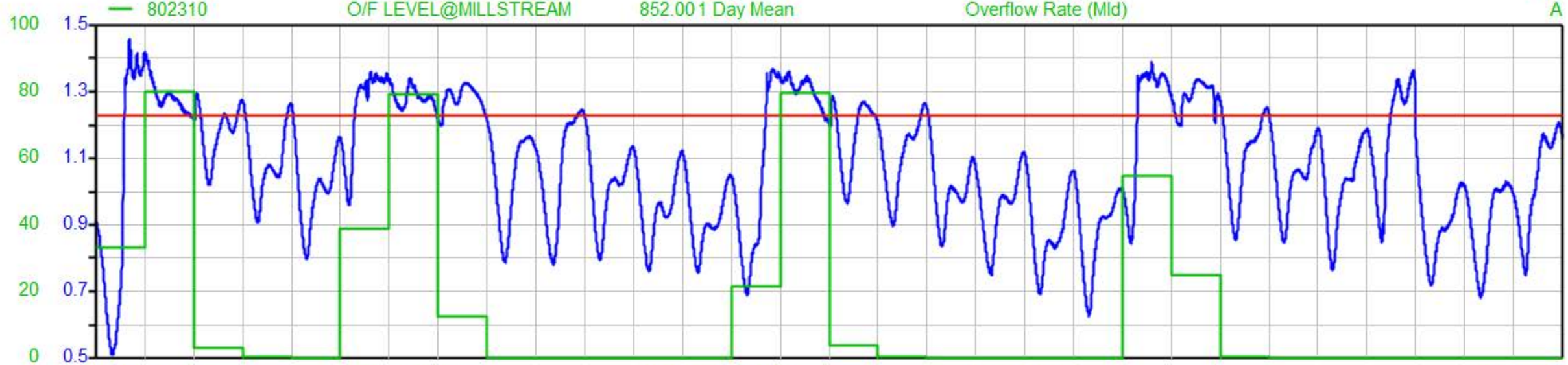


Sydney Water Hydrometric Services

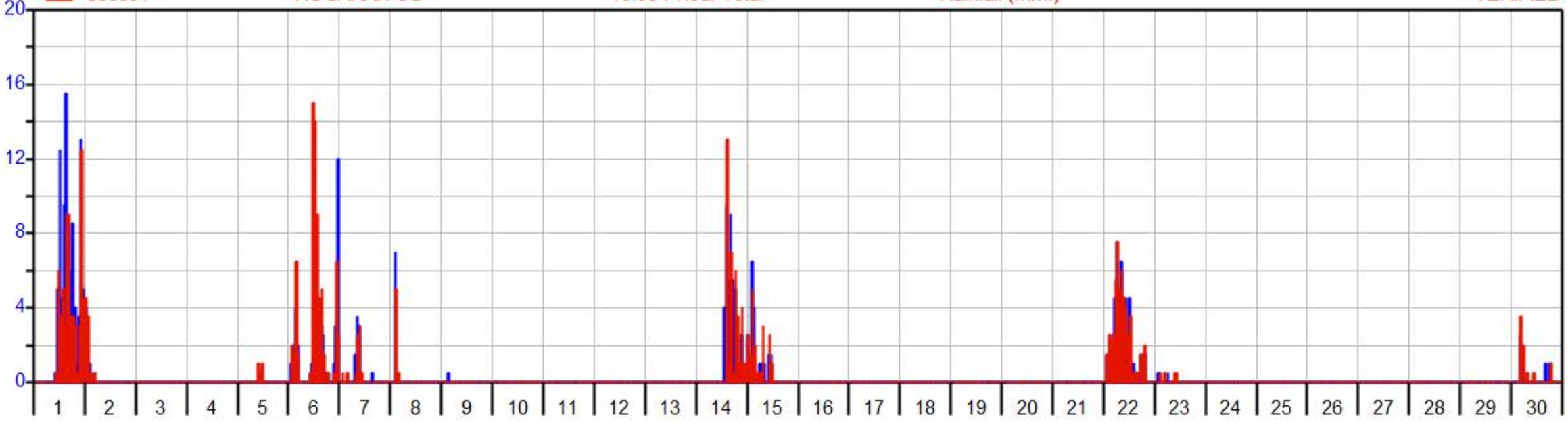
HYPLOT V134 Output 13/02/2025

Period 1 Month 01/06/2024 to 01/07/2024 2024

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

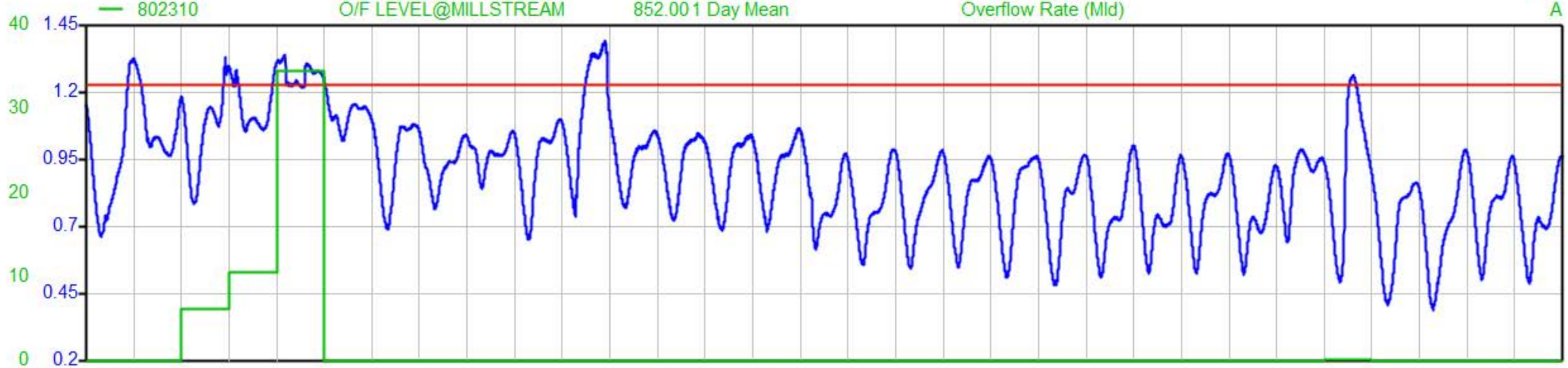


Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

Period 1 Month 01/07/2024 to 01/08/2024 2024

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

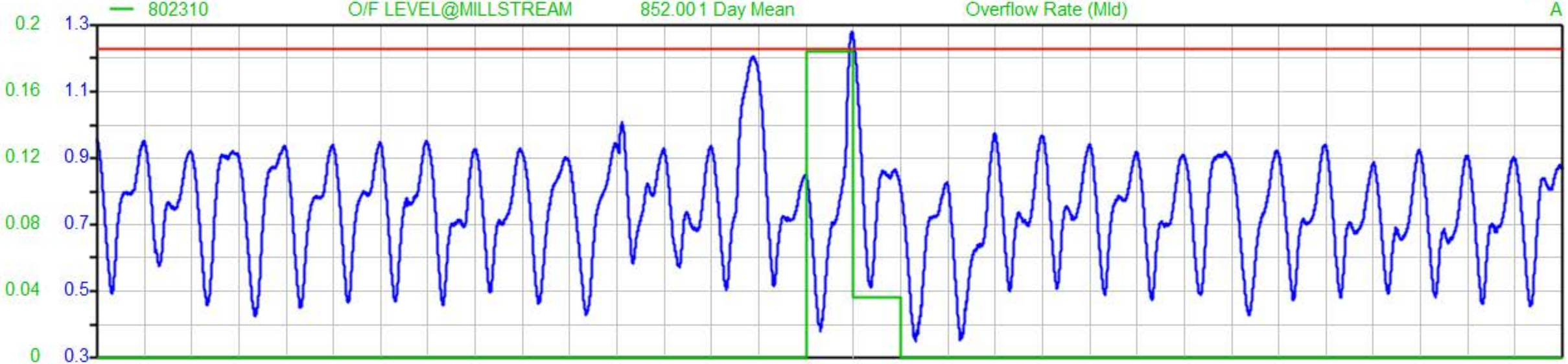


Sydney Water Hydrometric Services

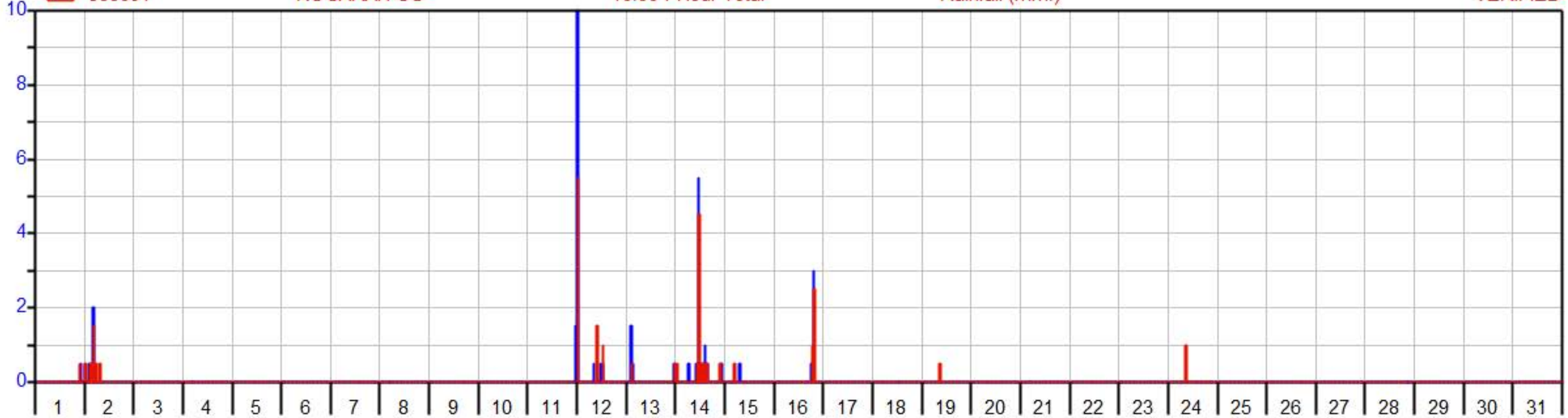
HYPLOT V134 Output 13/02/2025

Period 1 Month 01/08/2024 to 01/09/2024 2024

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

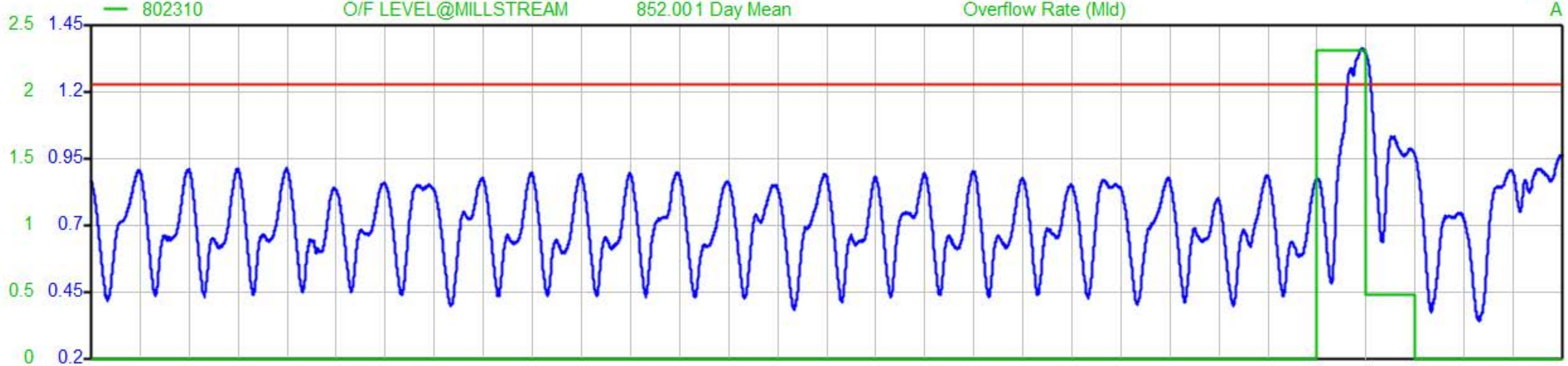


Sydney Water Hydrometric Services

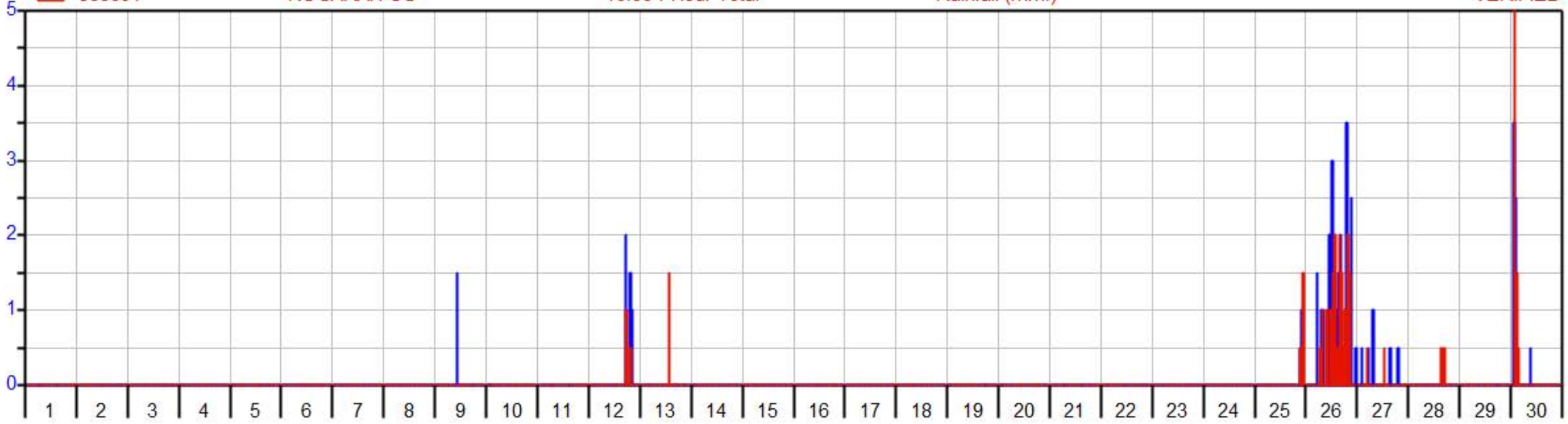
HYPLOT V134 Output 13/02/2025

Period 1 Month 01/09/2024 to 01/10/2024 2024

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

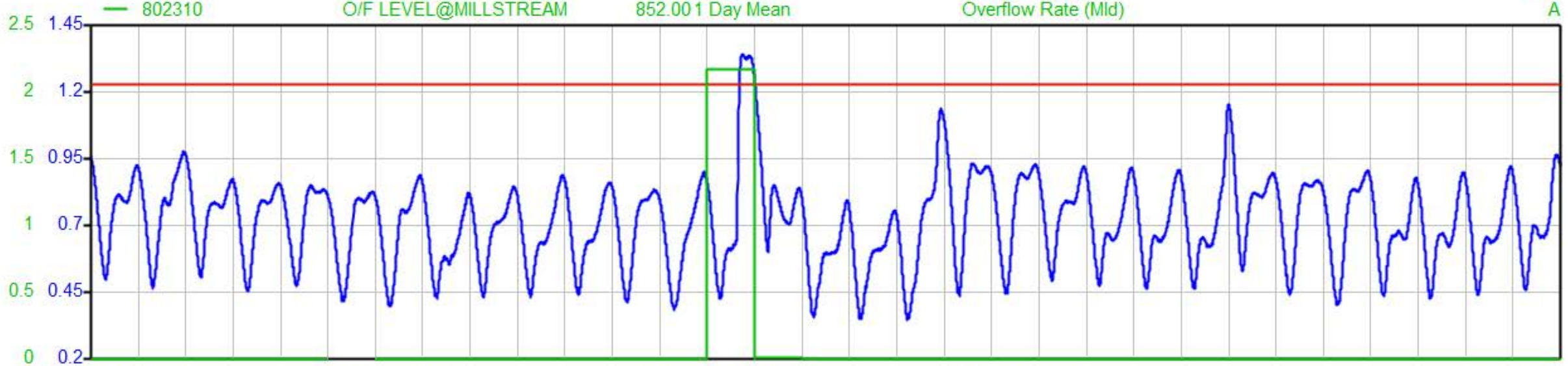


Sydney Water Hydrometric Services

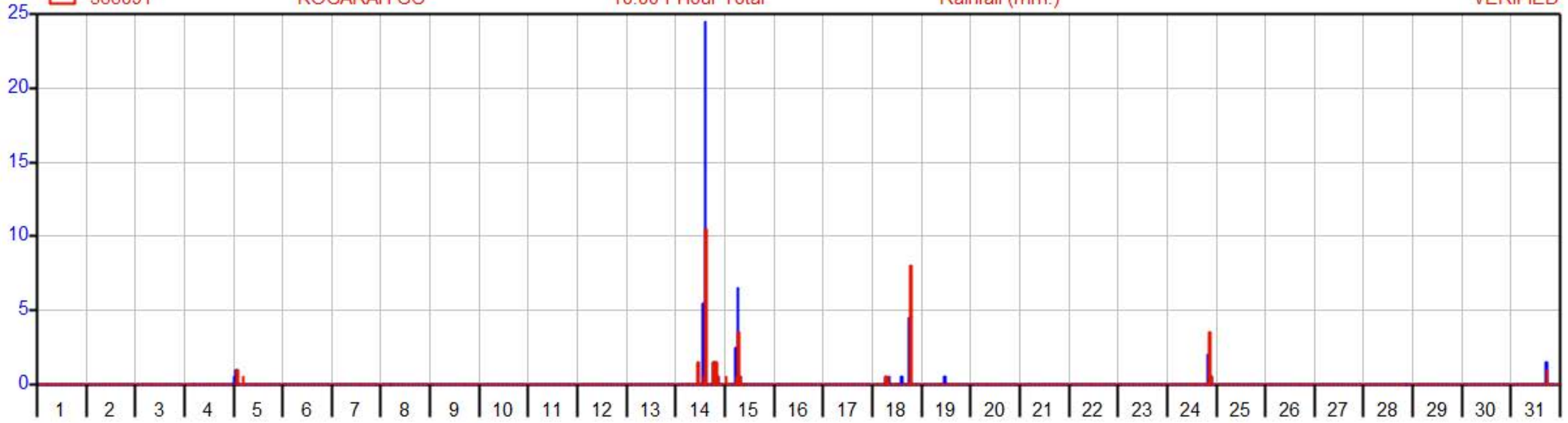
HYPLOT V134 Output 13/02/2025

Period 1 Month 01/10/2024 to 01/11/2024 2024

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

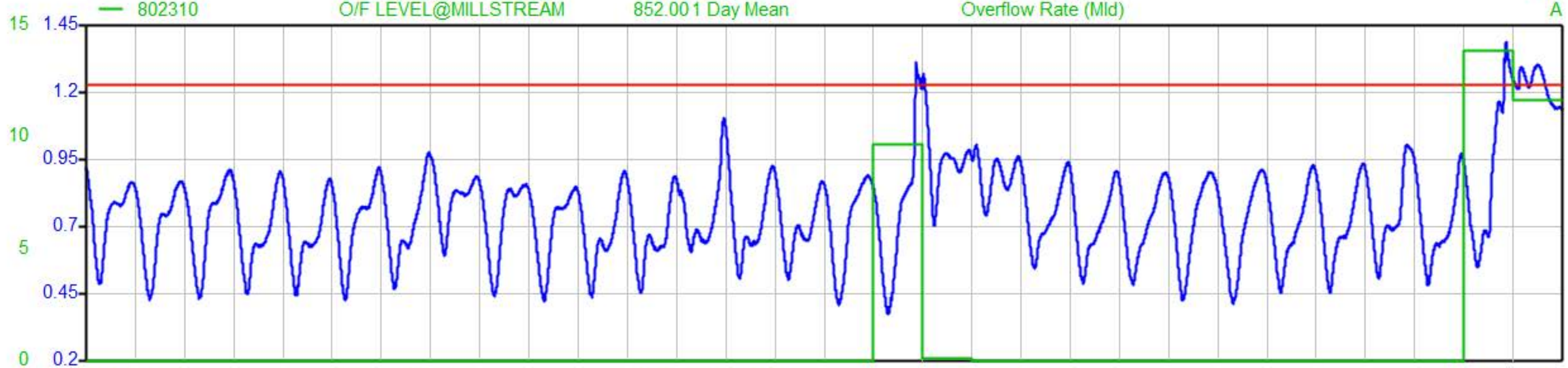


Sydney Water Hydrometric Services

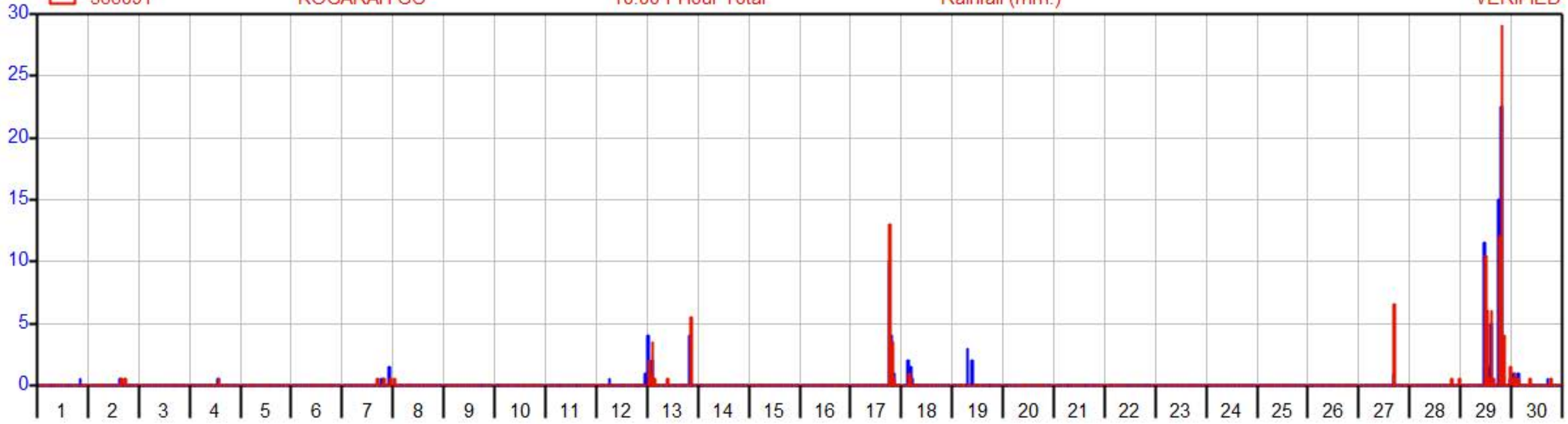
HYPLOT V134 Output 13/02/2025

Period 1 Month 01/11/2024 to 01/12/2024 2024

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED

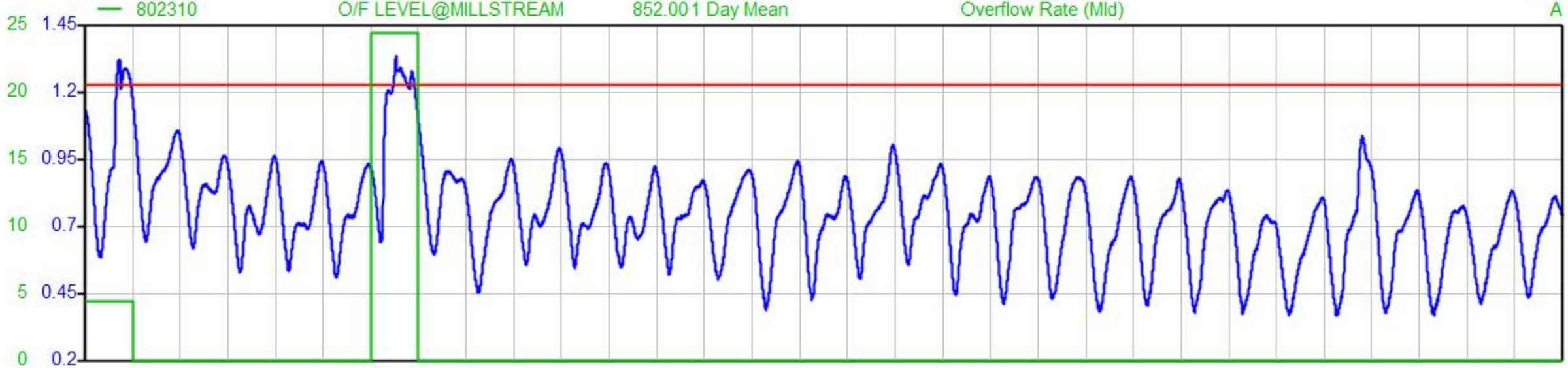


Sydney Water Hydrometric Services

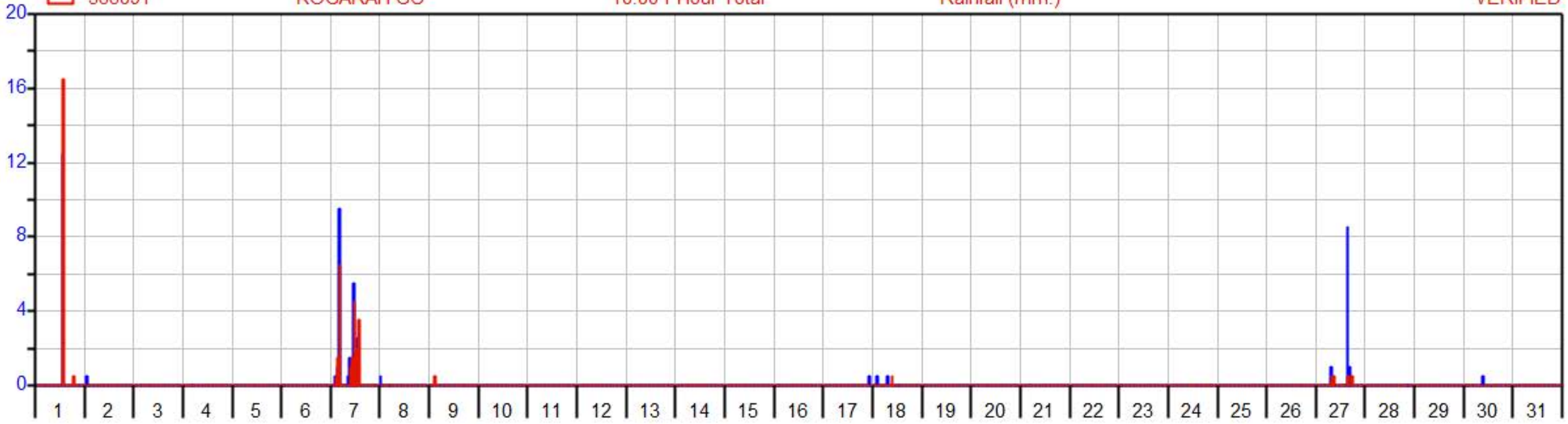
HYPLOT V134 Output 13/02/2025

Period 1 Month 01/12/2024 to 01/01/2025 2024

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



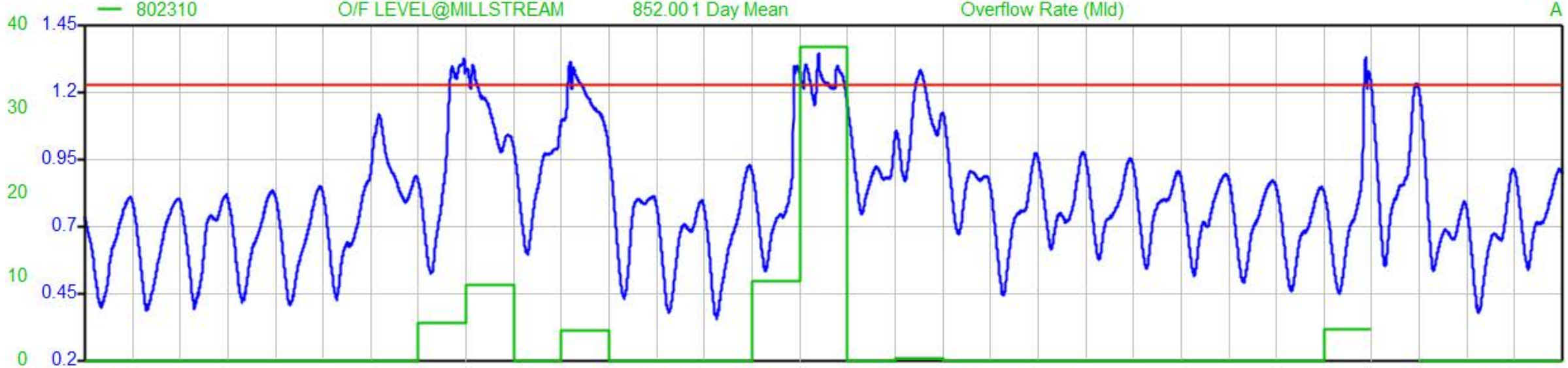
Sydney Water Hydrometric Services

HYPLOT V134 Output 13/02/2025

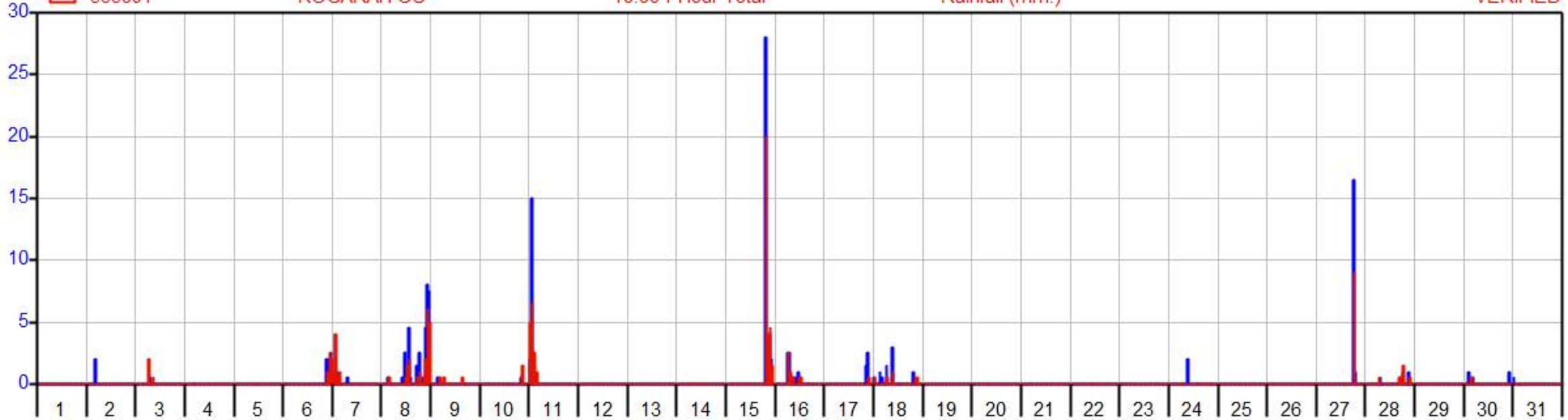
Period 1 Month 01/01/2025 to 01/02/2025

2025

802310	O/F LEVEL@MILLSTREAM	170.00 Stored trace	Level (Metres)	VERIFIED
802310	O/F LEVEL@MILLSTREAM	170.00 1 Day Mean	Level (Metres)	OF
802310	O/F LEVEL@MILLSTREAM	852.00 1 Day Mean	Overflow Rate (Mld)	A



566026	MARRICKVILLE	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED
566091	KOGARAH GC	10.00 1 Hour Total	Rainfall (mm.)	VERIFIED



Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 306220

Issue Date: 06/06/2024
Issued By : Jerome Batten, Sampling officer

Project : ER4-20240603-4
Job No : 91971268
Address : Bay Street
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

CONTENTS

1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer
Long Pham, Field Services Group Sampling officer
Alka Kumari, Microbiology Analyst
Melissa Wilding, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
4-1	L24049677	1	3/06/2024 1:07PM	03/06/2024	06/06/2024	Mill Stream Pond 90m north west of 1 Bay St
4-2	L24049678	3	3/06/2024 1:33PM	03/06/2024	06/06/2024	Mill Stream downstream of Foreshore Rd road bridge
4-3	L24049679	3	3/06/2024 2:13PM	03/06/2024	06/06/2024	Foreshore Beach 100m north west of Mill Stream lookout
4-4	L24049680	3	3/06/2024 2:35PM	03/06/2024	06/06/2024	Foreshore Beach 60m east of Mill Stream lookout
Field Assessment	L24049681	3	3/06/2024 3:06PM	03/06/2024	06/06/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		4-1	4-2	4-3	4-4	Field Assessment			
Sampled Date		03/06/2024 01:07:00 PM	03/06/2024 01:33:00 PM	03/06/2024 02:13:00 PM	03/06/2024 02:35:00 PM	03/06/2024 03:06:00 PM			
Sample Number		L24049677	L24049678	L24049679	L24049680	L24049681			
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Large body of water, organic debris, macrophytes, ducks in vicinity.	Large body of water, organic debris, domestic rubbish, scum and oil on surface, ducks in vicinity.	Sandy subsrate, organic debris, marine debris, domestic rubbish, fowl in vicinity. Dilution 1:4	Sandy substrate, organic debris, marine debris, domestic rubbish, fowl in vicinity. Dilution 1:6	-			
Sample Colour*	N/A	Clear	Clear	Clear	Clear	-			
Tide*	N/A	Not applicable - no tide	Low	Low	Incoming	-			
Visual assessment of Flow Rate*	N/A	High flow	Tidal	Tidal	Tidal	-			
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-			
Field Latitude*		-33.944664	-33.945912	-33.954264	-33.955098	-			
Field Longitude*		151.189953	151.188492	151.193222	151.194239	-			

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Sydney WATER Laboratory Services

Client Sample ID		4-1	4-2	4-3	4-4	Field Assessment			
Sampled Date		03/06/2024 01:07:00 PM	03/06/2024 01:33:00 PM	03/06/2024 02:13:00 PM	03/06/2024 02:35:00 PM	03/06/2024 03:06:00 PM			
Sample Number		L24049677	L24049678	L24049679	L24049680	L24049681			
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
GPS Error*	m	5	5	5	5	-			
Maximo WR No*	N/A	91971268	91971268	91971268	91971268	91971268			
Photo taken*	N/A	Yes	Yes	Yes	Yes	-			
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Precautionary	Primary Contact Recreational Waterway, Precautionary	-			
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	-			
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	-			
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	Customer Hub			
Depot Location*	N/A	-	-	-	-	South			

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Sydney WATER Laboratory Services

Client Sample ID		4-1	4-2	4-3	4-4	Field Assessment			
Sampled Date		03/06/2024 01:07:00 PM	03/06/2024 01:33:00 PM	03/06/2024 02:13:00 PM	03/06/2024 02:35:00 PM	03/06/2024 03:06:00 PM			
Sample Number		L24049677	L24049678	L24049679	L24049680	L24049681			
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Role*	N/A	-	-	-	-	Incident controller			
Comments*	N/A	-	-	-	-	NA			
Field Assessment delivered date_time*	N/A	-	-	-	-	03/06/2024 15:06			
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	Unknown			
Is Job Reportable*	N/A	-	-	-	-	Yes			
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	No sites were indicative of sewage based on field tests and observations, pending bacteriological results.			

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Sydney WATER Laboratory Services

Client Sample ID		4-1	4-2	4-3	4-4	Field Assessment			
Sampled Date		03/06/2024 01:07:00 PM	03/06/2024 01:33:00 PM	03/06/2024 02:13:00 PM	03/06/2024 02:35:00 PM	03/06/2024 03:06:00 PM			
Sample Number		L24049677	L24049678	L24049679	L24049680	L24049681			
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sewage flow path*	N/A	-	-	-	-	Internal request created for Mill Stream/Foreshore Beach investigation.			
Sewage material observed *	N/A	-	-	-	-	No			
Signage and containment observed*	N/A	-	-	-	-	Yes, signage and barrier tape observed.			
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	14.9	15.2	16.9	16.8	-			
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	-	30.8	48.0	-			
Conductivity Low Range	uS/cm	142	235	-	-	-			

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Sydney WATER Laboratory Services

Client Sample ID		4-1	4-2	4-3	4-4	Field Assessment			
Sampled Date		03/06/2024 01:07:00 PM	03/06/2024 01:33:00 PM	03/06/2024 02:13:00 PM	03/06/2024 02:35:00 PM	03/06/2024 03:06:00 PM			
Sample Number		L24049677	L24049678	L24049679	L24049680	L24049681			
FSG									
FS067 : Field WQ Multimeter(Continued)									
pH	pH units	7.52	7.34	7.98	8.12	-			
Dissolved Oxygen	mg/L	10.4	10.2	8.0	7.0	-			
Percent Dissolved Oxygen	%sat	103	101	92.6	86.2	-			
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	-			
FS080 : Ammonia - quantitative Field Test									
Total Ammonia Low Level	mg/L	0.11	<0.05	-	-	-			
Total Ammonia High Level	mg/L	-	-	<0.5	<0.5	-			
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Low	Low	Medium	Medium	-			
FS082 : Ammonia Toxicity									

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Sydney WATER Laboratory Services

Client Sample ID		4-1	4-2	4-3	4-4	Field Assessment			
Sampled Date		03/06/2024 01:07:00 PM	03/06/2024 01:33:00 PM	03/06/2024 02:13:00 PM	03/06/2024 02:35:00 PM	03/06/2024 03:06:00 PM			
Sample Number		L24049677	L24049678	L24049679	L24049680	L24049681			
FSG									
FS082 : Ammonia Toxicity(Continued)									
Ammonia toxicity*	N/A	No	No	No	No	-			
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	560	1000	2900	2400	-			
Date of Performance	D/M/Y H:M	04/06/24 07:45	04/06/24 07:45	04/06/24 07:45	04/06/24 07:45				
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	3400	7100	31000	31000	-			
Date of Performance	D/M/Y H:M	04/06/24 10:54	04/06/24 10:54	04/06/24 10:54	04/06/24 10:54				

COMMENTS

Sample ID	Comment Level	Method	Test	Comment
L24049679	**Sample**	-	-	FS080 Total Ammonia: Detection limit raised due to sample matrix requiring dilution.
L24049680	**Sample**	-	-	FS080 Total Ammonia: Detection limit raised due to sample matrix requiring dilution.

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 307466

Issue Date: 27/06/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20240623-2
Job No : 92138475
Address : Bay Street
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer

Gabrielle Joukhdar, Microbiology Senior Analyst

Melissa Wilding, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
2-1	L24055421	1	23/06/2024 4:33PM	24/06/2024	27/06/2024	Mill Stream, upstream of weir, 80m north of 2 Hale St
2-2	L24055422	3	23/06/2024 6:56PM	24/06/2024	27/06/2024	Mill Stream, 100m west of 2 Hale St
2-3	L24055423	3	23/06/2024 5:47PM	24/06/2024	27/06/2024	Foreshore Beach, downstream of stormwater outlets, 90m north west of Mill Stream lookout
2-4	L24055424	3	23/06/2024 6:18PM	24/06/2024	27/06/2024	Foreshore Beach, 180m south east of Mill Stream lookout
2-5	L24055425	3	23/06/2024 5:12PM	24/06/2024	27/06/2024	Botany Bay, 90m north east of Botany/Banksmeadow Rock Jetty, from boat ramp
2-6	L24055426	3	23/06/2024 7:32PM	24/06/2024	27/06/2024	Botany Bay, 290m east of Botany/Banksmeadow Rock Jetty
Field Assessment	L24055427	3	23/06/2024 8:20PM	24/06/2024	27/06/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Organic debris, macrophytes, algae.	Organic debris, domestic rubbish, ambient sewage odour. Ammonia meter = 1/4 dilution.	Sandy substrate, organic debris, marine debris, domestic rubbish, pulp, ambient sewage odour. Ammonia meter = 1/10 dilution.	Sandy substrate, organic debris, domestic rubbish, ambient sewage odour. Ammonia meter = 1/10 dilution.	Concrete substrate, organic debris, slight ambient sewage odour. Ammonia meter = 1/4 dilution.	Rocky substrate, organic debris, domestic rubbish. Ammonia meter = 1/4 dilution.	-	
Sample Colour*	N/A	Clear	Slightly turbid	Slightly turbid	Clear	Clear	Clear	-	
Tide*	N/A	Not applicable - no tide	Not applicable - no tide	Incoming	Incoming	Incoming	High	-	
Visual assessment of Flow Rate*	N/A	High flow	High flow	Tidal	Tidal	Tidal	Tidal	-	
ER Odour*	N/A	Nil sewage odour	Slight sewage odour	Slight sewage odour	Slight sewage odour	Nil sewage odour	Nil sewage odour	-	
Field Latitude*		-33.944697	-33.945649	-33.954283	-33.955609	-33.958174	-33.958308	-	

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Field Longitude*		151.189938	151.188840	151.193265	151.195482	151.198657	151.201008	-	
GPS Error*	m	10	10	10	10	10	10	-	
Maximo WR No*	N/A	92138475	92138475	92138475	92138475	92138475	92138475	92138475	
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	Yes	-	
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Assess pollution extent	Primary Contact Recreational Waterway, Assess pollution extent	Secondary Contact Recreational Waterway, Assess pollution extent	Assess pollution extent , Secondary Contact Recreational Waterway	-	
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
FS009 : ER Site Cleanup Recommendations									

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Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Field Asssessment delivered to*	N/A	-	-	-	-	-	-	Customer Hub	
Depot Location*	N/A	-	-	-	-	-	-	South	
Role*	N/A	-	-	-	-	-	-	Incident Controller	
Comments*	N/A	-	-	-	-	-	-	Recent rain in catchment area. Estuarine reference not collected due to time constraints (no stand down). FST reccomends signage at Foreshore Road Boat Ramp (site 5).	
Field Assessment delivered date_time*	N/A	-	-	-	-	-	-	23/06/2024 20:17	

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	-	-	Yes	
Is Job Reportable*	N/A	-	-	-	-	-	-	Yes	
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	-	Sites 2-4: elevated ammonia and sewage odour. Site 5: elevated ammonia and nil sewage odour.	

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Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sewage flow path*	N/A	-	-	-	-	-	-	Sewage surcharged from designed overflow (asset number: 8484492) due to wet weather and entered Mill Stream, flowing into Botany Bay.	
Sewage material observed *	N/A	-	-	-	-	-	-	Sewage odour and pulp.	
Signage and containment observed*	N/A	-	-	-	-	-	-	Signage and tape observed along Foreshore Beach between sites 3 and 4.	
FS010 : Water and Air Temperature - Field Measurement									

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
FSG									
FS010 : Water and Air Temperature - Field Measurement(Continued)									
Temperature Sample	Deg C	13.8	13.4	13.6	13.1	13.9	12.4	-	
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	-	6.00	12.9	20.6	14.4	-	
Conductivity Low Range	uS/cm	140	178	-	-	-	-	-	
pH	pH units	7.37	7.19	7.51	7.51	7.63	7.64	-	
Dissolved Oxygen	mg/L	10.8	10.1	8.5	8.7	8.1	8.8	-	
Percent Dissolved Oxygen	%sat	103	95.6	82.2	85.5	83.4	85.6	-	
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Moderate	Moderate	Moderate	Moderate	Negative	-	
FS080 : Ammonia - quantitative Field Test									
Total Ammonia Low Level	mg/L	0.13	-	-	-	-	-	-	

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Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
FSG									
FS080 : Ammonia - quantitative Field Test(Continued)									
Total Ammonia High Level	mg/L	-	1.4	2.6	1.4	1.2	<0.5	-	
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Medium	Low	Medium	Medium	Low	Low	-	
FS082 : Ammonia Toxicity									
Ammonia toxicity*	N/A	No	No	No	No	No	No	-	
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	230	~85000	~100000	45000	31000	21000	-	
Date of Performance	D/M/Y H:M	24/06/24 08:02	24/06/24 08:02	24/06/24 08:02	24/06/24 08:02	24/06/24 08:02	24/06/24 08:02		
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	1100	240000	800000	310000	79000	100000	-	

* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field Assessment	
Sampled Date		23/06/2024 04:33:00 PM	23/06/2024 06:56:00 PM	23/06/2024 05:47:00 PM	23/06/2024 06:18:00 PM	23/06/2024 05:12:00 PM	23/06/2024 07:32:00 PM	23/06/2024 08:20:00 PM	
Sample Number		L24055421	L24055422	L24055423	L24055424	L24055425	L24055426	L24055427	
MICRO									
Date of Performance	D/M/Y H:M	24/06/24 10:30	24/06/24 10:30	24/06/24 10:30	24/06/24 10:30	24/06/24 10:30	24/06/24 10:30		

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 308844

Issue Date: 22/07/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20240623-2
Job No : 92138475
Address : Bay Street
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

CONTENTS

1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer
Long Pham, Field Services Group Sampling officer
Gabrielle Joukhdar, Microbiology Senior Analyst
Melissa Wilding, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
2-2	L24061783	1	16/07/2024 10:41AM	16/07/2024	22/07/2024	Mill Stream, 100m west of 2 Hale St
2-3	L24061784	3	16/07/2024 11:35AM	16/07/2024	22/07/2024	Foreshore Beach, downstream of stormwater outlets, 90m north west of Mill Stream lookout
2-4	L24061785	3	16/07/2024 11:44AM	16/07/2024	22/07/2024	Foreshore Beach, 180m south east of Mill Stream lookout
2-5	L24061793	3	16/07/2024 10:55AM	16/07/2024	22/07/2024	Botany Bay, 90m north east of Botany/Banksmea dow Rock Jetty, from boat ramp
2-6	L24061794	3	16/07/2024 11:08AM	16/07/2024	22/07/2024	Botany Bay, 290m east of Botany/Banksmeadow Rock Jetty
2-7	L24061795	3	16/07/2024 11:24AM	16/07/2024	22/07/2024	Botany Bay, upstream of Serius Road, approximately 300m south west of 18 Dent Street
Field Assessment	L24061796	3	16/07/2024 1:27PM	16/07/2024	22/07/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		2-2	2-3	2-4	2-5	2-6	2-7	Field Assessment	
Sampled Date		16/07/2024 10:41:00 AM	16/07/2024 11:35:00 AM	16/07/2024 11:44:00 AM	16/07/2024 10:55:00 AM	16/07/2024 11:08:00 AM	16/07/2024 11:24:00 AM	16/07/2024 01:27:00 PM	
Sample Number		L24061783	L24061784	L24061785	L24061793	L24061794	L24061795	L24061796	
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Rocky substrate, organic debris, domestic rubbish	Sandy substrate , marine debris, sea life, saline	Sandy substrate, marine debris, sea life, saline	Oysters, marine debris, sea life, saline	Rocky substrate, oysters, sea life, saline	Rocky substrate, oysters, sea life, saline	-	
Sample Colour*	N/A	Clear	Clear	Clear	Clear	Clear	Clear	-	
Tide*	N/A	Not applicable - no tide	Low	Low	Low	Low	Low	-	
Visual assessment of Flow Rate*	N/A	High flow	Tidal	Tidal	Tidal	Tidal	Tidal	-	
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-	
Field Latitude*		-33.945532	-33.954288	-33.955626	-33.958182	-33.958322	-33.959957	-	
Field Longitude*		151.189075	151.193247	151.195445	151.198638	151.200967	151.204109	-	
GPS Error*	m	5	5	5	5	5	5	-	
Maximo WR No*	N/A	92138475	92138475	92138475	92138475	92138475	92138475	92138475	

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"-" = Not required or refer to Laboratory comment

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Sydney WATER Laboratory Services

Client Sample ID		2-2	2-3	2-4	2-5	2-6	2-7	Field Assessment	
Sampled Date		16/07/2024 10:41:00 AM	16/07/2024 11:35:00 AM	16/07/2024 11:44:00 AM	16/07/2024 10:55:00 AM	16/07/2024 11:08:00 AM	16/07/2024 11:24:00 AM	16/07/2024 01:27:00 PM	
Sample Number		L24061783	L24061784	L24061785	L24061793	L24061794	L24061795	L24061796	
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	Yes	-	
Reason for sampling List*	N/A	Previously affected	Previously affected	Previously affected, Primary Contact Recreational Waterway	Previously affected, Secondary Contact Recreational Waterway	Previously affected	Precautionary	-	
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	-	-	Environmental Response	
Depot Location*	N/A	-	-	-	-	-	-	South	
Role*	N/A	-	-	-	-	-	-	Environmental Response	

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Client Sample ID		2-2	2-3	2-4	2-5	2-6	2-7	Field Assessment	
Sampled Date		16/07/2024 10:41:00 AM	16/07/2024 11:35:00 AM	16/07/2024 11:44:00 AM	16/07/2024 10:55:00 AM	16/07/2024 11:08:00 AM	16/07/2024 11:24:00 AM	16/07/2024 01:27:00 PM	
Sample Number		L24061783	L24061784	L24061785	L24061793	L24061794	L24061795	L24061796	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Comments*	N/A	-	-	-	-	-	-	NA	
Field Assessment delivered date_time*	N/A	-	-	-	-	-	-	16/07/2024 13:27	
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	-	-	No	
Is Job Reportable*	N/A	-	-	-	-	-	-	Yes	
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	-	No sites indicative of sewage based on field test and observations pending bacteriological results.	
Sewage flow path*	N/A	-	-	-	-	-	-	NA	
Sewage material observed *	N/A	-	-	-	-	-	-	NA	

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Sydney WATER Laboratory Services

Client Sample ID		2-2	2-3	2-4	2-5	2-6	2-7	Field Assessment	
Sampled Date		16/07/2024 10:41:00 AM	16/07/2024 11:35:00 AM	16/07/2024 11:44:00 AM	16/07/2024 10:55:00 AM	16/07/2024 11:08:00 AM	16/07/2024 11:24:00 AM	16/07/2024 01:27:00 PM	
Sample Number		L24061783	L24061784	L24061785	L24061793	L24061794	L24061795	L24061796	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Signage and containment observed*	N/A	-	-	-	-	-	-	Signage observed	
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	14.1	13.8	15.0	14.5	14.7	12.8	-	
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	37.9	52.6	51.9	52.3	48.4	-	
Conductivity Low Range	uS/cm	1211	-	-	-	-	-	-	
pH	pH units	7.40	7.96	8.21	8.19	8.17	8.12	-	
Dissolved Oxygen	mg/L	9.9	8.2	8.0	8.2	7.9	8.2	-	
Percent Dissolved Oxygen	%sat	97.5	93.0	99.0	99.2	97.0	94.7	-	
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	Negative	Negative	-	

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Sydney WATER Laboratory Services

Client Sample ID		2-2	2-3	2-4	2-5	2-6	2-7	Field Assessment	
Sampled Date		16/07/2024 10:41:00 AM	16/07/2024 11:35:00 AM	16/07/2024 11:44:00 AM	16/07/2024 10:55:00 AM	16/07/2024 11:08:00 AM	16/07/2024 11:24:00 AM	16/07/2024 01:27:00 PM	
Sample Number		L24061783	L24061784	L24061785	L24061793	L24061794	L24061795	L24061796	
FSG									
FS068 : Ammonia - Semi-quantitative Field Test(Continued)									
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	1300	~100	<9	<9	<9	<9	-	
Date of Performance	D/M/Y H:M	16/07/24 15:06	16/07/24 15:06	16/07/24 15:06	16/07/24 15:06	16/07/24 15:06	16/07/24 15:06		
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	8600	150	~10	~10	~10	~10	-	
Date of Performance	D/M/Y H:M	16/07/24 15:58	16/07/24 15:58	16/07/24 15:58	16/07/24 16:20	16/07/24 16:20	16/07/24 16:20		

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 308852

Issue Date: 22/07/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20240718-2
Job No : 92356098
Address : Bay St
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

CONTENTS

1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer

Jouliet Ashak, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
2-1	L24062726	3	18/07/2024 11:54AM	18/07/2024	22/07/2024	Mill Stream Pond 90m northwest of 1 Bay St
2-2	L24062727	3	18/07/2024 12:55PM	18/07/2024	22/07/2024	100m north west of Mill Stream lookout at Foreshore Rd. 5m from the outlet.
2-3	L24062728	3	18/07/2024 1:09PM	18/07/2024	22/07/2024	60m east of Mill Stream lookout at Foreshore Rd
Field Assessment	L24062729	3	18/07/2024 2:55PM	18/07/2024	22/07/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		2-1	2-2	2-3	Field Assessment				
Sampled Date		18/07/2024 11:54:00 AM	18/07/2024 12:55:00 PM	18/07/2024 01:09:00 PM	18/07/2024 02:55:00 PM				
Sample Number		L24062726	L24062727	L24062728	L24062729				
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Large body of water, organic debris, macrophytes, ducks in vicinity.	Sandy subsrate, organic debris, marine debris, domestic rubbish, burnt tyre ambient odour, surface scum. Dilution 1 :4	Sandy substrate, organic debris, marine debris. Dilution 1:6	-				
Sample Colour*	N/A	Clear	Clear	Clear	-				
Tide*	N/A	Not applicable - no tide	Low	Low	-				
Visual assessment of Flow Rate*	N/A	High flow	Tidal	Tidal	-				
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	-				
Field Latitude*		-33.944701	-33.954264	-33.955098	-				
Field Longitude*		151.189922	151.193222	151.194239	-				

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	Field Assessment				
Sampled Date		18/07/2024 11:54:00 AM	18/07/2024 12:55:00 PM	18/07/2024 01:09:00 PM	18/07/2024 02:55:00 PM				
Sample Number		L24062726	L24062727	L24062728	L24062729				
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
GPS Error*	m	5	5	5	-				
Maximo WR No*	N/A	92356098	92356098	92356098	92356098				
Photo taken*	N/A	Yes	Yes	Yes	-				
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Precautionary, Primary Contact Recreational Waterway	-				
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	-				
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	-				
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	Customer hub				
Depot Location*	N/A	-	-	-	South				

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	Field Assessment				
Sampled Date		18/07/2024 11:54:00 AM	18/07/2024 12:55:00 PM	18/07/2024 01:09:00 PM	18/07/2024 02:55:00 PM				
Sample Number		L24062726	L24062727	L24062728	L24062729				
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Role*	N/A	-	-	-	Incident controller				
Comments*	N/A	-	-	-	NA				
Field Assessment delivered date_time*	N/A	-	-	-	18/07/2024 14:53				
Field evidence that sewage entered a waterway*	N/A	-	-	-	No				
Is Job Reportable*	N/A	-	-	-	Yes				
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	No				
Sewage flow path*	N/A	-	-	-	Material harm Mill Stream/Foreshore Beach investigation.				
Sewage material observed *	N/A	-	-	-	No				

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	Field Assessment				
Sampled Date		18/07/2024 11:54:00 AM	18/07/2024 12:55:00 PM	18/07/2024 01:09:00 PM	18/07/2024 02:55:00 PM				
Sample Number		L24062726	L24062727	L24062728	L24062729				
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Signage and containment observed*	N/A	-	-	-	Yes, signage and barrier tape observed.				
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	13.0	15.0	15.0	-				
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	28.0	46.0	-				
Conductivity Low Range	uS/cm	280	-	-	-				
pH	pH units	7.54	7.89	8.12	-				
Dissolved Oxygen	mg/L	10.1	7.9	8.2	-				
Percent Dissolved Oxygen	%sat	97.1	89.1	99.3	-				
FS068 : Ammonia - Semi-quantitative Field Test									

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	Field Assessment				
Sampled Date		18/07/2024 11:54:00 AM	18/07/2024 12:55:00 PM	18/07/2024 01:09:00 PM	18/07/2024 02:55:00 PM				
Sample Number		L24062726	L24062727	L24062728	L24062729				
FSG									
FS068 : Ammonia - Semi-quantitative Field Test(Continued)									
Ammonia*	N/A	Negative	Negative	Negative	-				
FS080 : Ammonia - quantitative Field Test									
Total Ammonia High Level	mg/L	-	<0.5	<0.5	-				
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Medium	Low	Low	-				
FS082 : Ammonia Toxicity									
Ammonia toxicity*	N/A	-	No	No	-				
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	110	~55	~9	-				
Date of Performance	D/M/Y H:M	18/07/24 15:14	18/07/24 15:14	18/07/24 15:14					

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	Field Assessment				
Sampled Date		18/07/2024 11:54:00 AM	18/07/2024 12:55:00 PM	18/07/2024 01:09:00 PM	18/07/2024 02:55:00 PM				
Sample Number		L24062726	L24062727	L24062728	L24062729				
MICRO									
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	130	490	130	-				
Date of Performance	D/M/Y H:M	18/07/24 16:01	18/07/24 16:01	18/07/24 16:01					

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 312848

Issue Date: 01/10/2024
Issued By : Binaya Sharma, Sampling officer

Project : ER4-20240927-2
Job No : 92924345
Address : Bay St
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
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Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer
Meredith Harvey, Field Services Group Sampling officer
Melissa Wilding, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
2-1	L24082385	3	27/09/2024 10:48AM	27/09/2024	01/10/2024	Mill Pond, 90 m North West of 1 Bay St
2-2	L24082386	3	27/09/2024 11:10AM	27/09/2024	01/10/2024	Mill Stream, upstream Foreshore Rd bridge, 100 m West of 4/2 Hale st
2-3	L24082387	3	27/09/2024 11:45AM	27/09/2024	01/10/2024	Mill Stream, 400 m West of 17 the Esplanade
2-4	L24082388	3	27/09/2024 12:21PM	27/09/2024	01/10/2024	Foreshore Beach, in front of Mill Stream lookout
2-5	L24082389	3	27/09/2024 12:51PM	27/09/2024	01/10/2024	Foreshore Beach, Boat Ramp, 190 m South West from the entrance of the parking
2-6	L24082390	3	27/09/2024 1:25PM	27/09/2024	01/10/2024	Yarra Bay beach, 180 m North East of 67-69 Yarra Bay Rd
Field assessment	L24082391	3	27/09/2024 2:40PM	27/09/2024	01/10/2024	Field assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field assessment	
Sampled Date		27/09/2024 10:48:00 AM	27/09/2024 11:10:00 AM	27/09/2024 11:45:00 AM	27/09/2024 12:21:00 PM	27/09/2024 12:51:00 PM	27/09/2024 01:25:00 PM	27/09/2024 02:40:00 PM	
Sample Number		L24082385	L24082386	L24082387	L24082388	L24082389	L24082390	L24082391	
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Waterfowl, organic debris	Muddy substrate, organic debris, domestic litter, scum on surface, oil, waterfowl, overhanging vegetation	Sandy substrate, marine debris, domestic litter, waterfowl. Sample was diluted sixfold for ammonia test	Rocky substrate, oysters, suspended organic debris and domestic litter, ambient sewage odour. Sample was diluted eightfold for the ammonia	Oysters, limited visibility . Sample was diluted eightfold for ammonia	Sandy substrate	-	
Sample Colour*	N/A	Clear	Clear	Clear	Clear	Clear	Clear	-	
Tide*	N/A	Not applicable - no tide	Low	Low	Incoming	Incoming	Incoming	-	
Visual assessment of Flow Rate*	N/A	High flow	Tidal	Tidal	Tidal	Tidal	Tidal	-	
ER Odour*	N/A	Nil sewage odour	Slight sewage odour	Nil sewage odour	Slight sewage odour	Nil sewage odour	Nil sewage odour	-	

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"-" = Not required or refer to Laboratory comment

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Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field assessment	
Sampled Date		27/09/2024 10:48:00 AM	27/09/2024 11:10:00 AM	27/09/2024 11:45:00 AM	27/09/2024 12:21:00 PM	27/09/2024 12:51:00 PM	27/09/2024 01:25:00 PM	27/09/2024 02:40:00 PM	
Sample Number		L24082385	L24082386	L24082387	L24082388	L24082389	L24082390	L24082391	
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Field Latitude*		-33.944729	-33.945691	-33.952714	-33.955130	-33.958285	-33.978994	-	
Field Longitude*		151.189910	151.188845	151.191768	151.193613	151.198000	151.228741	-	
GPS Error*	m	10	10	10	10	10	10	-	
Maximo WR No*	N/A	92924345	92924345	92924345	92924345	92924345	92924345	92924345	
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	Yes	-	
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Assess pollution extent	Primary Contact Recreational Waterway, Assess pollution extent	Secondary Contact Recreational Waterway, Assess pollution extent	Estuarine reference site	-	
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
FS009 : ER Site Cleanup Recommendations									

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This document may not be reproduced except in full.

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field assessment	
Sampled Date		27/09/2024 10:48:00 AM	27/09/2024 11:10:00 AM	27/09/2024 11:45:00 AM	27/09/2024 12:21:00 PM	27/09/2024 12:51:00 PM	27/09/2024 01:25:00 PM	27/09/2024 02:40:00 PM	
Sample Number		L24082385	L24082386	L24082387	L24082388	L24082389	L24082390	L24082391	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Field Asssessment delivered to*	N/A	-	-	-	-	-	-	Customer Hub	
Depot Location*	N/A	-	-	-	-	-	-	South	
Role*	N/A	-	-	-	-	-	-	Incident Controller	
Comments*	N/A	-	-	-	-	-	-	Sight 4 is primary contact and site 5 is secondary contact. Ammonia toxicity in sites 3 and 4.	
Field Assessment delivered date_time*	N/A	-	-	-	-	-	-	27/09/2024 14:38	
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	-	-	Yes	
Is Job Reportable*	N/A	-	-	-	-	-	-	Yes	

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Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field assessment	
Sampled Date		27/09/2024 10:48:00 AM	27/09/2024 11:10:00 AM	27/09/2024 11:45:00 AM	27/09/2024 12:21:00 PM	27/09/2024 12:51:00 PM	27/09/2024 01:25:00 PM	27/09/2024 02:40:00 PM	
Sample Number		L24082385	L24082386	L24082387	L24082388	L24082389	L24082390	L24082391	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	-	Sites 3, 4 and 5	
Sewage material observed *	N/A	-	-	-	-	-	-	No	
Signage and containment observed*	N/A	-	-	-	-	-	-	Signage not observed	
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	16.3	16.5	17.2	17.3	17.0	17.3	-	
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	-	4.30	18.5	44.1	53.9	-	
Conductivity Low Range	uS/cm	240	460	-	-	-	-	-	
pH	pH units	7.16	7.27	7.32	7.72	8.06	8.14	-	
Dissolved Oxygen	mg/L	7.9	7.9	5.5	8.1	7.8	7.9	-	

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Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field assessment	
Sampled Date		27/09/2024 10:48:00 AM	27/09/2024 11:10:00 AM	27/09/2024 11:45:00 AM	27/09/2024 12:21:00 PM	27/09/2024 12:51:00 PM	27/09/2024 01:25:00 PM	27/09/2024 02:40:00 PM	
Sample Number		L24082385	L24082386	L24082387	L24082388	L24082389	L24082390	L24082391	
FSG									
FS067 : Field WQ Multimeter(Continued)									
Percent Dissolved Oxygen	%sat	78.5	79.8	57.1	88.8	93.4	99.9	-	
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Slight positive	Moderate	Slight positive	Negative	-	
FS080 : Ammonia - quantitative Field Test									
Total Ammonia Low Level	mg/L	0.21	0.33	-	-	-	-	-	
Total Ammonia High Level	mg/L	-	-	2.5	3.0	<0.5	-	-	
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Low	Low	Low	Low	Low	Low	-	
FS082 : Ammonia Toxicity									
Ammonia toxicity*	N/A	No	No	Yes	Yes	No	No	-	
MICRO									

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Sydney WATER Laboratory Services

Client Sample ID		2-1	2-2	2-3	2-4	2-5	2-6	Field assessment	
Sampled Date		27/09/2024 10:48:00 AM	27/09/2024 11:10:00 AM	27/09/2024 11:45:00 AM	27/09/2024 12:21:00 PM	27/09/2024 12:51:00 PM	27/09/2024 01:25:00 PM	27/09/2024 02:40:00 PM	
Sample Number		L24082385	L24082386	L24082387	L24082388	L24082389	L24082390	L24082391	
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	800	4500	~77000	~85000	7800	<9	-	
Date of Performance	D/M/Y H:M	27/09/24 15:01	27/09/24 15:01	27/09/24 15:01	27/09/24 15:01	27/09/24 15:01	27/09/24 15:01		
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	1300	85000	690000	370000	87000	<10	-	
Date of Performance	D/M/Y H:M	27/09/24 15:14	27/09/24 15:14	27/09/24 15:14	27/09/24 15:14	27/09/24 15:14	27/09/24 15:14		

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 313048

Issue Date: 04/10/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20240927-2
Job No : 92924345
Address : Bay St
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

CONTENTS

1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Meredith Harvey, Field Services Group Sampling officer

Jouliet Ashak, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
2-2	L24083705	3	3/10/2024 9:14AM	03/10/2024	04/10/2024	Mill Stream, upstream Foreshore Rd bridge, 100 m West of 4/2 Hale st
2-3	L24083706	3	3/10/2024 8:53AM	03/10/2024	04/10/2024	Mill Stream, 400 m West of 17 the Esplanade
2-4	L24083707	3	3/10/2024 8:38AM	03/10/2024	04/10/2024	Foreshore Beach, in front of Mill Stream lookout
2-5	L24083708	3	3/10/2024 8:17AM	03/10/2024	04/10/2024	Foreshore Beach, Boat Ramp, 190 m South West from the entrance of the parking
Field Assessment	L24083709	3	3/10/2024 9:38AM	03/10/2024	04/10/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		2-2	2-3	2-4	2-5	Field Assessment			
Sampled Date		03/10/2024 09:14:00 AM	03/10/2024 08:53:00 AM	03/10/2024 08:38:00 AM	03/10/2024 08:17:00 AM	03/10/2024 09:38:00 AM			
Sample Number		L24083705	L24083706	L24083707	L24083708	L24083709			
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Organic debris, marine debris, domestic rubbish	Sandy substrate , organic debris, marine debris, domestic rubbish	Sandy substrate, organic debris, marine debris, domestic rubbish	Clear, organic debris	-			
Sample Colour*	N/A	Clear	Clear	Clear	Clear	-			
Tide*	N/A	High	High	High	High	-			
Visual assessment of Flow Rate*	N/A	Tidal	Tidal	Tidal	Tidal	-			
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-			
Field Latitude*		-33.945741	-33.952745	-33.955173	-33.958332	-			
Field Longitude*		151.188874	151.191814	151.193668	151.198035	-			
GPS Error*	m	10	10	10	10	-			

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Sydney WATER Laboratory Services

Client Sample ID		2-2	2-3	2-4	2-5	Field Assessment			
Sampled Date		03/10/2024 09:14:00 AM	03/10/2024 08:53:00 AM	03/10/2024 08:38:00 AM	03/10/2024 08:17:00 AM	03/10/2024 09:38:00 AM			
Sample Number		L24083705	L24083706	L24083707	L24083708	L24083709			
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Maximo WR No*	N/A	92924345	92924345	92924345	92924345	92924345			
Photo taken*	N/A	Yes	Yes	Yes	Yes	-			
Reason for sampling List*	N/A	Previously affected	Previously affected	Previously affected, Primary Contact Recreational Waterway	Previously affected, Secondary Contact Recreational Waterway	-			
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	-			
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	-			
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	Environmental Response			
Depot Location*	N/A	-	-	-	-	South			

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Client Sample ID		2-2	2-3	2-4	2-5	Field Assessment			
Sampled Date		03/10/2024 09:14:00 AM	03/10/2024 08:53:00 AM	03/10/2024 08:38:00 AM	03/10/2024 08:17:00 AM	03/10/2024 09:38:00 AM			
Sample Number		L24083705	L24083706	L24083707	L24083708	L24083709			
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Role*	N/A	-	-	-	-	Incident Controller			
Field Assessment delivered date_time*	N/A	-	-	-	-	03/10/2024 09:38			
Is Job Reportable*	N/A	-	-	-	-	Yes			
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	No sample sites indicative of sewage based on field tests and observations.			
Signage and containment observed*	N/A	-	-	-	-	Signage, tape			
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	19.0	17.5	18.0	18.7	-			
FS067 : Field WQ Multimeter									

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Sydney WATER Laboratory Services

Client Sample ID		2-2	2-3	2-4	2-5	Field Assessment			
Sampled Date		03/10/2024 09:14:00 AM	03/10/2024 08:53:00 AM	03/10/2024 08:38:00 AM	03/10/2024 08:17:00 AM	03/10/2024 09:38:00 AM			
Sample Number		L24083705	L24083706	L24083707	L24083708	L24083709			
FSG									
FS067 : Field WQ Multimeter(Continued)									
Conductivity High Range	mS/cm	17.6	32.3	52.6	52.4	-			
pH	pH units	7.30	7.61	8.11	8.08	-			
Dissolved Oxygen	mg/L	6.1	6.7	7.8	7.4	-			
Percent Dissolved Oxygen	%sat	69.0	77.9	99.3	96.0	-			
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	-			
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	670	330	<9	~27	-			
Date of Performance	D/M/Y H:M	03/10/24 10:53	03/10/24 10:53	03/10/24 10:53	03/10/24 10:53				
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	1400	1500	~10	<10	-			

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Sydney WATER Laboratory Services

Client Sample ID		2-2	2-3	2-4	2-5	Field Assessment			
Sampled Date		03/10/2024 09:14:00 AM	03/10/2024 08:53:00 AM	03/10/2024 08:38:00 AM	03/10/2024 08:17:00 AM	03/10/2024 09:38:00 AM			
Sample Number		L24083705	L24083706	L24083707	L24083708	L24083709			
MICRO									
MI58 : Faecal Coliforms by Tecta(Continued)									
Date of Performance	D/M/Y H:M	03/10/24 11:06	03/10/24 11:06	03/10/24 11:06	03/10/24 11:06				

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 313748

Issue Date: 17/10/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20241016-1
Job No : 93022556
Address : Bay St
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

CONTENTS

1. Sydney Water Approved Signatory
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4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer
Binaya Sharma, Field Services Group Sampling officer
Jouliet Ashak, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
1-1	L24087136	3	15/10/2024 2:28PM	16/10/2024	17/10/2024	Mill Stream, 110m north of 4/2 Hale St
1-2	L24087137	3	15/10/2024 2:50PM	16/10/2024	17/10/2024	Mill Stream 210m north west of 8/6-10 Booralee St
1-3	L24087138	3	15/10/2024 3:14PM	16/10/2024	17/10/2024	Mill Stream 600m southwest of 23a Luland St
1-4	L24087139	3	15/10/2024 3:35PM	16/10/2024	17/10/2024	Foreshore Beach 450m south west of 13 Chelmsford Ave
1-5	L24087140	3	15/10/2024 3:53PM	16/10/2024	17/10/2024	Foreshore Beach 450m south west of 38 Edgehill Ave
1-6	L24087141	3	15/10/2024 4:24PM	16/10/2024	17/10/2024	Yarra Bay Beach 170m north west of 67-69 yarra Rd
Field Assessment	L24087142	3	15/10/2024 4:48PM	16/10/2024	16/10/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		1-1	1-2	1-3	1-4	1-5	1-6	Field Assessment	
Sampled Date		15/10/2024 02:28:00 PM	15/10/2024 02:50:00 PM	15/10/2024 03:14:00 PM	15/10/2024 03:35:00 PM	15/10/2024 03:53:00 PM	15/10/2024 04:24:00 PM	15/10/2024 04:48:00 PM	
Sample Number		L24087136	L24087137	L24087138	L24087139	L24087140	L24087141	L24087142	
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Water fowl	Concrete sandy substrate, organic debris, water fowl	Sandy substrate, organic debris, domestic rubbish	Sandy substrate, organic debris, shellfish	Sandy substrate, organic debris	Sandy substrayte, marine debris	-	
Sample Colour*	N/A	Clear	Clear	Clear	Cllear	Clear	Clear	-	
Tide*	N/A	Not applicable - no tide	Low	Low	Incoming	Incoming	Incoming	-	
Visual assessment of Flow Rate*	N/A	High flow	Tidal	Tidal	Tidal	Tidal	Tidal	-	
ER Odour*	N/A	Nil sewage odour	Slight sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-	
Field Latitude*		-33.944700	-33.945533	-33.952359	-33.955160	-33.955960	-33.979048	-	
Field Longitude*		151.189939	151.188852	151.191598	151.193677	151.196348	151.228719	-	
GPS Error*	m	10	10	10	10	10	10	-	
Maximo WR No*	N/A	93022556	93022556	93022556	93022556	93022556	93022556	93022556	

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Client Sample ID		1-1	1-2	1-3	1-4	1-5	1-6	Field Assessment	
Sampled Date		15/10/2024 02:28:00 PM	15/10/2024 02:50:00 PM	15/10/2024 03:14:00 PM	15/10/2024 03:35:00 PM	15/10/2024 03:53:00 PM	15/10/2024 04:24:00 PM	15/10/2024 04:48:00 PM	
Sample Number		L24087136	L24087137	L24087138	L24087139	L24087140	L24087141	L24087142	
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	Yes	-	
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Assess pollution extent	Precautionary	Precautionary, Primary Contact Recreational Waterway	Estuarine reference site, Primary Contact Recreational Waterway	-	
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	-	-	Customer Hub	
Depot Location*	N/A	-	-	-	-	-	-	South	
Role*	N/A	-	-	-	-	-	-	Incident Controller	

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Client Sample ID		1-1	1-2	1-3	1-4	1-5	1-6	Field Assessment	
Sampled Date		15/10/2024 02:28:00 PM	15/10/2024 02:50:00 PM	15/10/2024 03:14:00 PM	15/10/2024 03:35:00 PM	15/10/2024 03:53:00 PM	15/10/2024 04:24:00 PM	15/10/2024 04:48:00 PM	
Sample Number		L24087136	L24087137	L24087138	L24087139	L24087140	L24087141	L24087142	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Comments*	N/A	-	-	-	-	-	-	NA	
Field Assessment delivered date_time*	N/A	-	-	-	-	-	-	15/10/2024 16:46	
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	-	-	Yes	
Is Job Reportable*	N/A	-	-	-	-	-	-	Yes	
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	-	Site 2 is the only sample site indicative of sewage based on field tests and observation.	
Sewage flow path*	N/A	-	-	-	-	-	-	FST did not observed surcharge	
Sewage material observed *	N/A	-	-	-	-	-	-	No	

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Client Sample ID		1-1	1-2	1-3	1-4	1-5	1-6	Field Assessment	
Sampled Date		15/10/2024 02:28:00 PM	15/10/2024 02:50:00 PM	15/10/2024 03:14:00 PM	15/10/2024 03:35:00 PM	15/10/2024 03:53:00 PM	15/10/2024 04:24:00 PM	15/10/2024 04:48:00 PM	
Sample Number		L24087136	L24087137	L24087138	L24087139	L24087140	L24087141	L24087142	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Signage and containment observed*	N/A	-	-	-	-	-	-	Yes - signage and tape	
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	18.6	19.0	17.8	17.9	17.7	17.6	-	
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	-	8.10	9.90	22.4	50.8	-	
Conductivity Low Range	uS/cm	182	312	-	-	-	-	-	
pH	pH units	7.27	7.41	7.69	7.84	7.90	8.16	-	
Dissolved Oxygen	mg/L	9.4	9.1	8.5	9.0	8.5	7.8	-	
Percent Dissolved Oxygen	%sat	98.7	95.8	90.9	97.1	95.9	99.3	-	
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	Negative	Negative	-	

* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

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Sydney WATER Laboratory Services

Client Sample ID		1-1	1-2	1-3	1-4	1-5	1-6	Field Assessment	
Sampled Date		15/10/2024 02:28:00 PM	15/10/2024 02:50:00 PM	15/10/2024 03:14:00 PM	15/10/2024 03:35:00 PM	15/10/2024 03:53:00 PM	15/10/2024 04:24:00 PM	15/10/2024 04:48:00 PM	
Sample Number		L24087136	L24087137	L24087138	L24087139	L24087140	L24087141	L24087142	
FSG									
FS080 : Ammonia - quantitative Field Test									
Total Ammonia Low Level	mg/L	0.11	0.18	0.30	0.18	-	-	-	
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Medium	Low	Medium	Medium	Medium	Medium	-	
FS082 : Ammonia Toxicity									
Ammonia toxicity*	N/A	No	No	No	No	-	-	-	
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	3300	5700	6200	~9500	20000	~18	-	
Date of Performance	D/M/Y H:M	16/10/24 07:27	16/10/24 07:27	16/10/24 07:27	16/10/24 07:27	16/10/24 07:27	16/10/24 07:27		
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	7000	12000	48000	70000	96000	170	-	

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Sydney WATER Laboratory Services

Client Sample ID		1-1	1-2	1-3	1-4	1-5	1-6	Field Assessment	
Sampled Date		15/10/2024 02:28:00 PM	15/10/2024 02:50:00 PM	15/10/2024 03:14:00 PM	15/10/2024 03:35:00 PM	15/10/2024 03:53:00 PM	15/10/2024 04:24:00 PM	15/10/2024 04:48:00 PM	
Sample Number		L24087136	L24087137	L24087138	L24087139	L24087140	L24087141	L24087142	
MICRO									
Date of Performance	D/M/Y H:M	16/10/24 10:53	16/10/24 10:53	16/10/24 10:53	16/10/24 10:53	16/10/24 10:53	16/10/24 10:53		

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 314115

Issue Date: 24/10/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20241016-1
Job No : 93022556
Address : Bay St
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Meredith Harvey, Field Services Group Sampling officer	Binaya Sharma, Field Services Group Sampling officer	Melissa Wilding, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
1-2	L24088866	3	22/10/2024 11:39AM	22/10/2024	23/10/2024	Mill Stream 210m north west of 8/6-10 Booralee St
1-3	L24088868	3	22/10/2024 12:32PM	22/10/2024	23/10/2024	Mill Stream 600m southwest of 23a Luland St
1-4	L24088869	3	22/10/2024 12:45PM	22/10/2024	23/10/2024	Foreshore Beach 450m south west of 13 Chelmsford Ave
1-5	L24088870	3	22/10/2024 1:06PM	22/10/2024	23/10/2024	Foreshore Beach 450m south west of 38 Edgehill Ave
1-6	L24088867	3	22/10/2024 12:06PM	22/10/2024	23/10/2024	Yarra Bay Beach 170m north west of 67-69 yarra Rd
Field Assessment	L24088871	3	22/10/2024 2:11PM	22/10/2024	23/10/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		1-2	1-3	1-4	1-5	1-6	Field Assessment		
Sampled Date		22/10/2024 11:39:00 AM	22/10/2024 12:32:00 PM	22/10/2024 12:45:00 PM	22/10/2024 01:06:00 PM	22/10/2024 12:06:00 PM	22/10/2024 02:11:00 PM		
Sample Number		L24088866	L24088868	L24088869	L24088870	L24088867	L24088871		
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Muddy substrate , domestic litter, organic debris, waterfowl, overhanging vegetation	Sandy substrate , marine debris, domestic litter, waterfowl	Rocky substrate, oysters, suspended organic debris and domestic litter	Rocky and sandy substrate, suspended organic debris	Sandy substrate	-		
Sample Colour*	N/A	Clear	Clear	Clear	Clear	Clear	-		
Tide*	N/A	High	High	High	High	High	-		
Visual assessment of Flow Rate*	N/A	Tidal	Tidal	Tidal	Tidal	Tidal	-		
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-		
Field Latitude*		-33.94555151	-33.952757	-33.955129	-33.955871	-33.979121	-		
Field Longitude*		151.188783	151.192006	151.193613	151.196434	151.228768	-		
GPS Error*	m	10	10	10	10	10	-		

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Client Sample ID		1-2	1-3	1-4	1-5	1-6	Field Assessment		
Sampled Date		22/10/2024 11:39:00 AM	22/10/2024 12:32:00 PM	22/10/2024 12:45:00 PM	22/10/2024 01:06:00 PM	22/10/2024 12:06:00 PM	22/10/2024 02:11:00 PM		
Sample Number		L24088866	L24088868	L24088869	L24088870	L24088867	L24088871		
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Maximo WR No*	N/A	93022556	93022556	93022556	93022556	93022556	93022556		
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	-		
Reason for sampling List*	N/A	Previously affected	Previously affected	Previously affected	Previously affected, Primary Contact Recreational Waterway	Previously affected, Primary Contact Recreational Waterway	-		
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-		
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-		
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	-	Environmental Response		
Depot Location*	N/A	-	-	-	-	-	South		

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Client Sample ID		1-2	1-3	1-4	1-5	1-6	Field Assessment		
Sampled Date		22/10/2024 11:39:00 AM	22/10/2024 12:32:00 PM	22/10/2024 12:45:00 PM	22/10/2024 01:06:00 PM	22/10/2024 12:06:00 PM	22/10/2024 02:11:00 PM		
Sample Number		L24088866	L24088868	L24088869	L24088870	L24088867	L24088871		
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Role*	N/A	-	-	-	-	-	Environmental Response		
Field Assessment delivered date_time*	N/A	-	-	-	-	-	22/10/2024 14:11		
Is Job Reportable*	N/A	-	-	-	-	-	Yes		
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	No sample site indicative of sewage based on field tests and observations.		
Signage and containment observed*	N/A	-	-	-	-	-	Signage		
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	20.8	19.6	20.0	20.7	19.4	-		
FS067 : Field WQ Multimeter									

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Client Sample ID		1-2	1-3	1-4	1-5	1-6	Field Assessment		
Sampled Date		22/10/2024 11:39:00 AM	22/10/2024 12:32:00 PM	22/10/2024 12:45:00 PM	22/10/2024 01:06:00 PM	22/10/2024 12:06:00 PM	22/10/2024 02:11:00 PM		
Sample Number		L24088866	L24088868	L24088869	L24088870	L24088867	L24088871		
FSG									
FS067 : Field WQ Multimeter(Continued)									
Conductivity High Range	mS/cm	6.70	43.5	49.6	51.6	53.2	-		
pH	pH units	7.43	8.04	8.10	8.13	8.11	-		
Dissolved Oxygen	mg/L	7.6	7.6	7.7	7.6	7.5	-		
Percent Dissolved Oxygen	%sat	87.1	97.9	103	102	100	-		
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	Negative	-		
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	180	~82	190	<9	<9	-		
Date of Performance	D/M/Y H:M	22/10/24 15:13	22/10/24 15:13	22/10/24 15:13	22/10/24 15:13	22/10/24 15:13			
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	540	~32	780	~44	<10	-		

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Sydney WATER Laboratory Services

Client Sample ID		1-2	1-3	1-4	1-5	1-6	Field Assessment		
Sampled Date		22/10/2024 11:39:00 AM	22/10/2024 12:32:00 PM	22/10/2024 12:45:00 PM	22/10/2024 01:06:00 PM	22/10/2024 12:06:00 PM	22/10/2024 02:11:00 PM		
Sample Number		L24088866	L24088868	L24088869	L24088870	L24088867	L24088871		
MICRO									
MI58 : Faecal Coliforms by Tecta(Continued)									
Date of Performance	D/M/Y H:M	22/10/24 15:42	22/10/24 15:42	22/10/24 15:42	22/10/24 15:42	22/10/24 15:42			

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Sydney WATER Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 315673

Issue Date: 21/11/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20241118-3
Job No : 93284872
Address : Bay Street
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer
Evan Giovanni, Field Services Group Sampling officer
Long Pham, Field Services Group Sampling officer
Jouliet Ashak, Microbiology Analyst
Alka Kumari, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
3-1	L24096686	3	18/11/2024 7:38AM	18/11/2024	21/11/2024	Mill Pond, 90m north of 2 Hale St
3-2	L24096687	3	18/11/2024 8:14AM	18/11/2024	21/11/2024	Mill Stream, 140m west of 2 Hale St
3-3	L24096688	3	18/11/2024 8:50AM	18/11/2024	21/11/2024	Mill Stream, 300m south west of 30 Folkestone Pde
3-4	L24096689	3	18/11/2024 9:04AM	18/11/2024	20/11/2024	Foreshore Beach, 350m south west of 30 Folkestone Pde
Field Assessment	L24096690	3	18/11/2024 9:29AM	18/11/2024	20/11/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		3-1	3-2	3-3	3-4	Field Assessment			
Sampled Date		18/11/2024 07:38:00 AM	18/11/2024 08:14:00 AM	18/11/2024 08:50:00 AM	18/11/2024 09:04:00 AM	18/11/2024 09:29:00 AM			
Sample Number		L24096686	L24096687	L24096688	L24096689	L24096690			
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Waterbirds.	Organic debris, surface foam.	Organic debris, domestic rubbish. 1/3 dilution.	Organic debris, domestic rubbish. 1/5 dilution.	-			
Sample Colour*	N/A	Clear	Clear	Clear	Clear	-			
Tide*	N/A	Not applicable - no tide	Not applicable - no tide	High	High	-			
Visual assessment of Flow Rate*	N/A	Very strong flow	Very strong flow	Tidal	Tidal	-			
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-			
Field Latitude*		-33.944700	-33.945932	-33.954360	-33.955076	-			
Field Longitude*		151.189931	151.188578	151.193457	151.194213	-			
GPS Error*	m	5	5	5	5	-			
Maximo WR No*	N/A	93284872	93284872	93284872	93284872	93284872			

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	Field Assessment			
Sampled Date		18/11/2024 07:38:00 AM	18/11/2024 08:14:00 AM	18/11/2024 08:50:00 AM	18/11/2024 09:04:00 AM	18/11/2024 09:29:00 AM			
Sample Number		L24096686	L24096687	L24096688	L24096689	L24096690			
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Photo taken*	N/A	Yes	Yes	Yes	Yes	-			
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Precautionary	Precautionary, Primary Contact Recreational Waterway	-			
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	-			
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	-			
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	Customer hub			
Depot Location*	N/A	-	-	-	-	South			
Role*	N/A	-	-	-	-	Incident Controller			

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	Field Assessment			
Sampled Date		18/11/2024 07:38:00 AM	18/11/2024 08:14:00 AM	18/11/2024 08:50:00 AM	18/11/2024 09:04:00 AM	18/11/2024 09:29:00 AM			
Sample Number		L24096686	L24096687	L24096688	L24096689	L24096690			
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Comments*	N/A	-	-	-	-	Please note catchment may be affected by rainfall at time of FST sampling			
Field Assessment delivered date_time*	N/A	-	-	-	-	18/11/2024 09:29			
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	No			
Is Job Reportable*	N/A	-	-	-	-	Yes			
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	No sample sites indicative of sewage based on field tests and observations			

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	Field Assessment			
Sampled Date		18/11/2024 07:38:00 AM	18/11/2024 08:14:00 AM	18/11/2024 08:50:00 AM	18/11/2024 09:04:00 AM	18/11/2024 09:29:00 AM			
Sample Number		L24096686	L24096687	L24096688	L24096689	L24096690			
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sewage flow path*	N/A	-	-	-	-	Surchage and flow path not observed			
Sewage material observed *	N/A	-	-	-	-	Not observed			
Signage and containment observed*	N/A	-	-	-	-	Signage and barrier tape			
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	21.2	21.5	20.1	19.0	-			
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	-	19.0	35.8	-			
Conductivity Low Range	uS/cm	159	745	-	-	-			
pH	pH units	6.97	7.12	7.59	8.00	-			
Dissolved Oxygen	mg/L	5.9	7.3	7.8	6.7	-			

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	Field Assessment			
Sampled Date		18/11/2024 07:38:00 AM	18/11/2024 08:14:00 AM	18/11/2024 08:50:00 AM	18/11/2024 09:04:00 AM	18/11/2024 09:29:00 AM			
Sample Number		L24096686	L24096687	L24096688	L24096689	L24096690			
FSG									
FS067 : Field WQ Multimeter(Continued)									
Percent Dissolved Oxygen	%sat	65.9	82.0	85.0	82.7	-			
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	-			
FS080 : Ammonia - quantitative Field Test									
Total Ammonia Low Level	mg/L	<0.05	<0.05	0.21	-	-			
Total Ammonia High Level	mg/L	-	-	-	<0.5	-			
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Medium	Low	Medium	Medium	-			
FS082 : Ammonia Toxicity									
Ammonia toxicity*	N/A	No	No	No	No	-			
MICRO									

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	Field Assessment			
Sampled Date		18/11/2024 07:38:00 AM	18/11/2024 08:14:00 AM	18/11/2024 08:50:00 AM	18/11/2024 09:04:00 AM	18/11/2024 09:29:00 AM			
Sample Number		L24096686	L24096687	L24096688	L24096689	L24096690			
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	2100	3500	~11000	7400	-			
Date of Performance	D/M/Y H:M	18/11/24 10:36	18/11/24 10:36	18/11/24 10:36	18/11/24 10:36				
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	2900	7700	95000	72000	-			
Date of Performance	D/M/Y H:M	18/11/24 10:57	18/11/24 10:57	18/11/24 10:57	18/11/24 10:57				

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 315876

Issue Date: 25/11/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20241118-3
Job No : 93284872
Address : Bay Street
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer

Jouliet Ashak, Microbiology Analyst

Melissa Wilding, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
3-3	L24098112	3	21/11/2024 12:39PM	21/11/2024	25/11/2024	Mill Stream, 300m south west of 30 Folkestone Pde
3-4	L24098113	3	21/11/2024 12:51PM	21/11/2024	25/11/2024	Foreshore Beach, 350m south west of 30 Folkestone Pde
Field Assessment	L24098116	3	21/11/2024 1:11PM	21/11/2024	22/11/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		3-3	3-4	Field Assessment					
Sampled Date		21/11/2024 12:39:00 PM	21/11/2024 12:51:00 PM	21/11/2024 01:11:00 PM					
Sample Number		L24098112	L24098113	L24098116					
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Domesic rubbish, marine debris, sandy substrate.	Sandy substrate .	-					
Sample Colour*	N/A	Clear	Clear	-					
Tide*	N/A	Incoming	Incoming	-					
Visual assessment of Flow Rate*	N/A	Tidal	Tidal	-					
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	-					
Field Latitude*		-33.954367	-33.955117	-					
Field Longitude*		151.193443	151.194209	-					
GPS Error*	m	5	5	-					
Maximo WR No*	N/A	93284872	93284872	93284872					

* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

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Sydney WATER Laboratory Services

Client Sample ID		3-3	3-4	Field Assessment						
Sampled Date		21/11/2024 12:39:00 PM	21/11/2024 12:51:00 PM	21/11/2024 01:11:00 PM						
Sample Number		L24098112	L24098113	L24098116						
FSG										
FS001 : Field Observations Including Weather Conditions(Continued)										
Photo taken*	N/A	Yes	Yes	-						
Reason for sampling List*	N/A	Previously affected	Previously affected, Primary Contact Recreational Waterway	-						
Waterway depth (m)*	M	Large body of water	Large body of water	-						
Waterway width (m)*	M	Large body of water	Large body of water	-						
FS009 : ER Site Cleanup Recommendations										
Field Asssessment delivered to*	N/A	-	-	Environmental Response						
Depot Location*	N/A	-	-	South						
Role*	N/A	-	-	Environmental Response						

* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

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Client Sample ID		3-3	3-4	Field Assessment					
Sampled Date		21/11/2024 12:39:00 PM	21/11/2024 12:51:00 PM	21/11/2024 01:11:00 PM					
Sample Number		L24098112	L24098113	L24098116					
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Field Assessment delivered date_time*	N/A	-	-	21/11/2024 13:11					
Field evidence that sewage entered a waterway*	N/A	-	-	No					
Is Job Reportable*	N/A	-	-	Yes					
Sample sites indicative of sewage based on field tests*	N/A	-	-	No sample sites indicative of sewage based on field tests and observations.					
Signage and containment observed*	N/A	-	-	Signage observed and beach cordoned off near sites 3 and 4.					
FS010 : Water and Air Temperature - Field Measurement									

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Sydney WATER Laboratory Services

Client Sample ID		3-3	3-4	Field Assessment						
Sampled Date		21/11/2024 12:39:00 PM	21/11/2024 12:51:00 PM	21/11/2024 01:11:00 PM						
Sample Number		L24098112	L24098113	L24098116						
FSG										
FS010 : Water and Air Temperature - Field Measurement(Continued)										
Temperature Sample	Deg C	23.7	22.9	-						
FS067 : Field WQ Multimeter										
Conductivity High Range	mS/cm	34.7	53.3	-						
pH	pH units	7.89	8.13	-						
Dissolved Oxygen	mg/L	6.9	7.1	-						
Percent Dissolved Oxygen	%sat	91.2	101	-						
FS068 : Ammonia - Semi-quantitative Field Test										
Ammonia*	N/A	Negative	Negative	-						
MICRO										
MI03ASI : Enterococci by Membrane Filtration										
Enterococci	CFU/100mL	~27	<9	-						

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Sydney WATER Laboratory Services

Client Sample ID		3-3	3-4	Field Assessment					
Sampled Date		21/11/2024 12:39:00 PM	21/11/2024 12:51:00 PM	21/11/2024 01:11:00 PM					
Sample Number		L24098112	L24098113	L24098116					
MICRO									
Date of Performance	D/M/Y H:M	21/11/24 15:24	21/11/24 15:24						
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	160	~10	-					
Date of Performance	D/M/Y H:M	21/11/24 16:19	21/11/24 16:19						

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Sydney WATER Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 316920

Issue Date: 12/12/2024
Issued By : Long Pham, Sampling officer

Project : ER4-20241208-3
Job No : 93431697
Address : Bay Street
Suburb : Botany

Attention:	Mark McGowan	Address:	Lot 3 Yato Rd, PRESTONS NSW 2170
Customer:	Environmental Response	Telephone:	4736-9152
Customer ID:	20025077	Email:	Mark.McGowan@sydneywater.com.au

CONTENTS

1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer

Gabrielle Joukhdar, Microbiology Senior Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
3-1	L24103102	3	8/12/2024 11:08AM	08/12/2024	10/12/2024	Mill Stream 90m north west of 1 Bay St Botany. Sampled just before weir.
3-2	L24103103	3	8/12/2024 11:46AM	08/12/2024	10/12/2024	Mill Stream 120m north west of 3/2 Hale St. Sampled from Foreshore Rd bridge.
3-3	L24103104	3	8/12/2024 12:37PM	08/12/2024	10/12/2024	Mill Stream 350m south west of Port Air Estate, 1 A Hale St.
3-4	L24103105	3	8/12/2024 1:13PM	08/12/2024	10/12/2024	Botany Bay 400m south west of 15 The Esplanade. Sampled at Mill Stream Lookout.
3-5	L24103106	3	8/12/2024 1:33PM	08/12/2024	10/12/2024	Botany Bay 300m south west of 13 The Esplanade. Sampled on a groyne.
3-6	L24103107	3	8/12/2024 2:40PM	08/12/2024	10/12/2024	Congwong Beach 200m south east of 1599 Anzac Parade.
Field Assessment	L24103108	3	8/12/2024 3:22PM	08/12/2024	10/12/2024	Field Assessment
Field Assessment	L24103325	3	9/12/2024 2:25PM	09/12/2024	10/12/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	Field Assessment
Sampled Date		08/12/2024 11:08:00 AM	08/12/2024 11:46:00 AM	08/12/2024 12:37:00 PM	08/12/2024 01:13:00 PM	08/12/2024 01:33:00 PM	08/12/2024 02:40:00 PM	08/12/2024 03:22:00 PM	09/12/2024 02:25:00 PM
Sample Number		L24103102	L24103103	L24103104	L24103105	L24103106	L24103107	L24103108	L24103325
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Floating macrophytes, water fowl, live fish, overhanging riparian vegetation.	Surface scum, water body appears turbid brown, overhanging riparian vegetation.	Water body appears turbid brown, leaf litter, domestic rubbish, ambient sewage odour. 4 times dilution	Water body appears turbid brown, live fish, fisherman present. 5 times dilution	Sandy substrate, swimmer present. 6 times dilution	Sandy substate, marine debris, swimmers present.	-	-
Sample Colour*	N/A	Clear	Clear	Clear	Clear	Clear	Clear	-	-
Tide*	N/A	Not applicable - no tide	Not applicable - no tide	Incoming	Incoming	High	High	-	-
Visual assessment of Flow Rate*	N/A	High flow	High flow	Tidal	Tidal	Tidal	Tidal	-	-
ER Odour*	N/A	Nil sewage odour	Moderate sewage odour	Slight sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-	-
Field Latitude*		-33.944702	-33.945604	-33.952507	-33.955115	-33.955526	-33.989088	-	-
Field Longitude*		151.189935	151.188871	151.191724	151.193567	151.195002	151.234416	-	-

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	Field Assessment
Sampled Date		08/12/2024 11:08:00 AM	08/12/2024 11:46:00 AM	08/12/2024 12:37:00 PM	08/12/2024 01:13:00 PM	08/12/2024 01:33:00 PM	08/12/2024 02:40:00 PM	08/12/2024 03:22:00 PM	09/12/2024 02:25:00 PM
Sample Number		L24103102	L24103103	L24103104	L24103105	L24103106	L24103107	L24103108	L24103325
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
GPS Error*	m	5	5	5	5	5	5	-	-
Maximo WR No*	N/A	93431697	93431697	93431697	93431697	93431697	93431697	93431697	93431697
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	Yes	-	-
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Assess pollution extent	Assess pollution extent	Precautionary	Estuarine reference site, Primary Contact Recreational Waterway	-	-
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	-
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	-
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	-	-	Customer Hub	Customer Hub
Depot Location*	N/A	-	-	-	-	-	-	South	South

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	Field Assessment
Sampled Date		08/12/2024 11:08:00 AM	08/12/2024 11:46:00 AM	08/12/2024 12:37:00 PM	08/12/2024 01:13:00 PM	08/12/2024 01:33:00 PM	08/12/2024 02:40:00 PM	08/12/2024 03:22:00 PM	09/12/2024 02:25:00 PM
Sample Number		L24103102	L24103103	L24103104	L24103105	L24103106	L24103107	L24103108	L24103325
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Role*	N/A	-	-	-	-	-	-	Incident Controller	Incident Controller
Comments*	N/A	-	-	-	-	-	-	Inflow unable to be sampled due to unknown location and unsafe access .	Correction to field assessment and field data initially sent.
Field Assessment delivered date_time*	N/A	-	-	-	-	-	-	08/12/2024 15:19	09/12/2024 14:25
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	-	-	Yes	-
Is Job Reportable*	N/A	-	-	-	-	-	-	Yes	Yes
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	-	Site 3 and 4	Site 2, 3 and 4

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	Field Assessment
Sampled Date		08/12/2024 11:08:00 AM	08/12/2024 11:46:00 AM	08/12/2024 12:37:00 PM	08/12/2024 01:13:00 PM	08/12/2024 01:33:00 PM	08/12/2024 02:40:00 PM	08/12/2024 03:22:00 PM	09/12/2024 02:25:00 PM
Sample Number		L24103102	L24103103	L24103104	L24103105	L24103106	L24103107	L24103108	L24103325
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sewage flow path*	N/A	-	-	-	-	-	-	Asset # SG003 5 has surcharged due to wet weather, entering into Mill Stream and exiting at Botany Bay.	-
Sewage material observed *	N/A	-	-	-	-	-	-	Sewage odour observed	-
Signage and containment observed*	N/A	-	-	-	-	-	-	Signage and barrier tape observed.	-
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	26.4	26.8	25.5	25.5	24.4	22.6	-	-
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	-	30.2	38.8	44.4	51.8	-	-

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	Field Assessment
Sampled Date		08/12/2024 11:08:00 AM	08/12/2024 11:46:00 AM	08/12/2024 12:37:00 PM	08/12/2024 01:13:00 PM	08/12/2024 01:33:00 PM	08/12/2024 02:40:00 PM	08/12/2024 03:22:00 PM	09/12/2024 02:25:00 PM
Sample Number		L24103102	L24103103	L24103104	L24103105	L24103106	L24103107	L24103108	L24103325
FSG									
FS067 : Field WQ Multimeter(Continued)									
Conductivity Low Range	uS/cm	165	643	-	-	-	-	-	-
pH	pH units	6.99	7.14	7.71	7.90	7.97	8.09	-	-
Dissolved Oxygen	mg/L	6.6	6.7	6.3	6.4	7.0	7.2	-	-
Percent Dissolved Oxygen	%sat	81.8	83.9	86.5	90.8	99.6	101	-	-
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Slight positive	Negative	Negative	Negative	-	-
FS080 : Ammonia - quantitative Field Test									
Total Ammonia Low Level	mg/L	-	0.12	-	-	0.48	-	-	-
Total Ammonia High Level	mg/L	-	-	1.4	0.8	-	-	-	-
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Medium	Medium	Medium	Medium	Low	Medium	-	-

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Analytical Report 316920

Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	Field Assessment
Sampled Date		08/12/2024 11:08:00 AM	08/12/2024 11:46:00 AM	08/12/2024 12:37:00 PM	08/12/2024 01:13:00 PM	08/12/2024 01:33:00 PM	08/12/2024 02:40:00 PM	08/12/2024 03:22:00 PM	09/12/2024 02:25:00 PM
Sample Number		L24103102	L24103103	L24103104	L24103105	L24103106	L24103107	L24103108	L24103325
FSG									
FS082 : Ammonia Toxicity									
Ammonia toxicity*	N/A	-	No	No	No	No	-	-	-
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	~18	750	1500	270	530	300	-	-
Date of Performance	D/M/Y H:M	09/12/24 06:33	09/12/24 06:33	09/12/24 06:33	09/12/24 06:33	09/12/24 06:33	09/12/24 06:33		
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	21000	<10	75000	18000	8000	2000	-	-
Date of Performance	D/M/Y H:M	09/12/24 10:07	09/12/24 10:07	09/12/24 10:07	09/12/24 10:07	09/12/24 10:07	09/12/24 10:14		

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 317255

Issue Date: 18/12/2024
Issued By : Daniel Chapoy, Sampling officer

Project : ER4-20241208-3
Job No : 93431697
Address : Bay Street
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Long Pham, Field Services Group Sampling officer	Jouliet Ashak, Microbiology Analyst	Gabrielle Joukhdar, Microbiology Senior Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
3-1	L24107084	3	17/12/2024 10:40AM	17/12/2024	18/12/2024	Mill Stream 90m north west of 1 Bay St Botany. Sampled just before weir.
3-11	L24107085	3	17/12/2024 11:53AM	17/12/2024	18/12/2024	Confluence of Mill Stream and Botany Bay, 80m north west of Mill Stream Lookout
3-4	L24107086	3	17/12/2024 12:12PM	17/12/2024	18/12/2024	Botany Bay 400m south west of 15 The Esplanade. Sampled at Mill Stream Lookout
3-5	L24107087	3	17/12/2024 12:14PM	17/12/2024	18/12/2024	Botany Bay 300m south west of 13 The Esplanade. Sampled on a groyne.
3-6	L24107088	3	17/12/2024 11:23AM	17/12/2024	18/12/2024	Congwong Beach 200m south east of 1599 Anzac Parade.
Field Assessment	L24107089	3	17/12/2024 1:41PM	17/12/2024	18/12/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		3-1	3-11	3-4	3-5	3-6	Field Assessment		
Sampled Date		17/12/2024 10:40:00 AM	17/12/2024 11:53:00 AM	17/12/2024 12:12:00 PM	17/12/2024 12:14:00 PM	17/12/2024 11:23:00 AM	17/12/2024 01:41:00 PM		
Sample Number		L24107084	L24107085	L24107086	L24107087	L24107088	L24107089		
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Muddy substrate , algae, organic debris, domestic rubbish, water fowl, fish.	Sandy substrate , leaf litter, fish.	Sandy substrate, leaf litter, fish.	Sandy substrate, leaf litter, fish.	Sandy substrate, leaf litter, swimmers, fish.	-		
Sample Colour*	N/A	Clear	Clear	Clear	Clear	Clear	-		
Tide*	N/A	Not applicable - no tide	High	High	High	High	-		
Visual assessment of Flow Rate*	N/A	High flow	Tidal	Tidal	Tidal	Tidal	-		
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-		
Field Latitude*		-33.944697	-33.954345	-33.955140	-33.955532	-33.989102	-		
Field Longitude*		151.189906	151.193295	151.193675	151.194976	151.234397	-		
GPS Error*	m	5	5	5	5	5	-		

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"-" = Not required or refer to Laboratory comment

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Client Sample ID		3-1	3-11	3-4	3-5	3-6	Field Assessment		
Sampled Date		17/12/2024 10:40:00 AM	17/12/2024 11:53:00 AM	17/12/2024 12:12:00 PM	17/12/2024 12:14:00 PM	17/12/2024 11:23:00 AM	17/12/2024 01:41:00 PM		
Sample Number		L24107084	L24107085	L24107086	L24107087	L24107088	L24107089		
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Maximo WR No*	N/A	93431697	93431697	93431697	93431697	93431697	93431697		
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	-		
Reason for sampling List*	N/A	Upstream site, Previously affected	Precautionary	Previously affected	Precautionary	Estuarine reference site, Primary Contact Recreational Waterway	-		
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-		
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-		
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	-	Environmental Response		
Depot Location*	N/A	-	-	-	-	-	South		

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Client Sample ID		3-1	3-11	3-4	3-5	3-6	Field Assessment		
Sampled Date		17/12/2024 10:40:00 AM	17/12/2024 11:53:00 AM	17/12/2024 12:12:00 PM	17/12/2024 12:14:00 PM	17/12/2024 11:23:00 AM	17/12/2024 01:41:00 PM		
Sample Number		L24107084	L24107085	L24107086	L24107087	L24107088	L24107089		
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Role*	N/A	-	-	-	-	-	Environmental Response		
Comments*	N/A	-	-	-	-	-	NA		
Field Assessment delivered date_time*	N/A	-	-	-	-	-	17/12/2024 13: 39		
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	-	No		
Is Job Reportable*	N/A	-	-	-	-	-	Yes		
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	No sites indicative of sewage based on field test and observations pending bacteriological results.		
Sewage flow path*	N/A	-	-	-	-	-	Not observed		

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-11	3-4	3-5	3-6	Field Assessment		
Sampled Date		17/12/2024 10:40:00 AM	17/12/2024 11:53:00 AM	17/12/2024 12:12:00 PM	17/12/2024 12:14:00 PM	17/12/2024 11:23:00 AM	17/12/2024 01:41:00 PM		
Sample Number		L24107084	L24107085	L24107086	L24107087	L24107088	L24107089		
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sewage material observed *	N/A	-	-	-	-	-	Not observed		
Signage and containment observed*	N/A	-	-	-	-	-	Signage and tape observed at Site 3-4.		
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	30.0	24.8	24.8	25.5	25.0	-		
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	52.1	52.9	53.0	53.4	-		
Conductivity Low Range	uS/cm	225	-	-	-	-	-		
pH	pH units	7.43	8.03	8.03	8.05	8.08	-		
Dissolved Oxygen	mg/L	6.9	6.9	7.1	7.0	6.8	-		
Percent Dissolved Oxygen	%sat	91.9	101	105	106	104	-		

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-11	3-4	3-5	3-6	Field Assessment		
Sampled Date		17/12/2024 10:40:00 AM	17/12/2024 11:53:00 AM	17/12/2024 12:12:00 PM	17/12/2024 12:14:00 PM	17/12/2024 11:23:00 AM	17/12/2024 01:41:00 PM		
Sample Number		L24107084	L24107085	L24107086	L24107087	L24107088	L24107089		
FSG									
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	Negative	-		
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	~18	~27	~18	~64	<9	-		
Date of Performance	D/M/Y H:M	17/12/24 15:47	17/12/24 15:47	17/12/24 15:47	17/12/24 15:47	17/12/24 15:47			
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	120	~18	~10	~10	~28	-		
Date of Performance	D/M/Y H:M	17/12/24 16:17	17/12/24 16:17	17/12/24 16:17	17/12/24 16:17	17/12/24 16:17			

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Sydney WATER Laboratory Services

Analytical Report 317476

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Issue Date: 21/12/2024
Issued By : Sydney Water Laboratory Services

Project : ER4-20241208-3
Job No : 93431697
Address : Bay Street
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer

Melissa Wilding, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
3-3	L24107939	3	19/12/2024 9:34AM	19/12/2024	21/12/2024	Mill Stream 350m south west of Port Air Estate, 1 A Hale St.
Field Assessment	L24107940	3	19/12/2024 10:01AM	19/12/2024	20/12/2024	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		3-3	Field Assessment						
Sampled Date		19/12/2024 09:34:00 AM	19/12/2024 10:01:00 AM						
Sample Number		L24107939	L24107940						
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Sandy substrate , marine debris, domestic rubbish	-						
Sample Colour*	N/A	Clear	-						
Tide*	N/A	Incoming	-						
Visual assessment of Flow Rate*	N/A	Tidal	-						
ER Odour*	N/A	Nil sewage odour	-						
Field Latitude*		-33.952515	-						
Field Longitude*		151.191729	-						
GPS Error*	m	10	-						
Maximo WR No*	N/A	93431697	93431697						
Photo taken*	N/A	Yes	-						

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Sydney WATER Laboratory Services

Client Sample ID		3-3	Field Assessment						
Sampled Date		19/12/2024 09:34:00 AM	19/12/2024 10:01:00 AM						
Sample Number		L24107939	L24107940						
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Reason for sampling List*	N/A	Previously affected	-						
Waterway depth (m)*	M	Large body of water	-						
Waterway width (m)*	M	Large body of water	-						
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	Environmental response						
Depot Location*	N/A	-	South						
Role*	N/A	-	Environmental response						
Comments*	N/A	-	NA						
Field Assessment delivered date_time*	N/A	-	19/12/2024 09:59						

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"-" = Not required or refer to Laboratory comment

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Client Sample ID		3-3	Field Assessment						
Sampled Date		19/12/2024 09:34:00 AM	19/12/2024 10:01:00 AM						
Sample Number		L24107939	L24107940						
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Field evidence that sewage entered a waterway*	N/A	-	No						
Is Job Reportable*	N/A	-	Yes						
Sample sites indicative of sewage based on field tests*	N/A	-	No sample sites indicative of sewage based on field tests and observations						
Sewage flow path*	N/A	-	NA						
Sewage material observed *	N/A	-	Not observed						
Signage and containment observed*	N/A	-	Signage and barrier taper observed						
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	21.5	-						

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Sydney WATER Laboratory Services

Client Sample ID		3-3	Field Assessment						
Sampled Date		19/12/2024 09:34:00 AM	19/12/2024 10:01:00 AM						
Sample Number		L24107939	L24107940						
FSG									
FS010 : Water and Air Temperature - Field Measurement(Continued)									
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	49.6	-						
pH	pH units	7.97	-						
Dissolved Oxygen	mg/L	7.2	-						
Percent Dissolved Oxygen	%sat	99.0	-						
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	-						
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	~18	-						
Date of Performance	D/M/Y H:M	19/12/24 15:08							
MI58 : Faecal Coliforms by Tecta									

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Sydney WATER Laboratory Services

Client Sample ID		3-3	Field Assessment						
Sampled Date		19/12/2024 09:34:00 AM	19/12/2024 10:01:00 AM						
Sample Number		L24107939	L24107940						
MICRO									
MI58 : Faecal Coliforms by Tecta(Continued)									
Faecal Coliform	CFU/100mL	~70	-						
Date of Performance	D/M/Y H:M	19/12/24 15:44							

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Sydney WATER
Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 318423

Issue Date: 14/01/2025
Issued By : Binaya Sharma, Sampling officer

Project : ER4-20250110-3
Job No : 93606696
Address : General Holmes Dr
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
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Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer	Long Pham, Field Services Group Sampling officer	Manal Hammoud, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
3-1	L25003900	3	10/01/2025 1:52PM	10/01/2025	13/01/2025	Mill Stream, 350m north west of 37 Bay St Botany. Upstream of weir.
3-2	L25003901	3	10/01/2025 2:34PM	10/01/2025	13/01/2025	Mill Stream, 500m west of 37 Bay St Botany. Upstream of Foreshore Rd bridge.
3-3	L25003902	3	10/01/2025 3:20PM	10/01/2025	13/01/2025	Botany Bay, 400m south west of 15 The Esplanade. 30m downstream of stormwater outlet .
3-4	L25003903	3	10/01/2025 4:02PM	10/01/2025	13/01/2025	Foreshore Beach, 350m south west of 17 The Esplanade.
3-5	L25003904	3	10/01/2025 4:06PM	10/01/2025	13/01/2025	Foreshore Beach, 300m south west of 10 The Esplanade.
3-6	L25003905	3	10/01/2025 4:57PM	10/01/2025	13/01/2025	Lady Robinsons Beach, 150m east of 12 Primrose Ave. 70m Downstream of storm water outlet.
Field Assessment	L25003906	3	10/01/2025 5:47PM	10/01/2025	13/01/2025	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Muddy substrate , organic debris, macrophytes, riparian vegetation .	Muddy substrate, organic debris, domestic rubbish, riparian vegetation.	Sandy substrate, organic debris, leaf litter. Dilution 1/6.	Sandy substrate, organic debris, leaf litter, domestic rubbish, algae. Dilution 1/6.	Sandy substrate, organic debris, leaf litter, domestic rubbish, algae, swimmer. Dilution 1/6.	Sandy substrate, marine debris, organic debris, domestic rubbish, fishers, swimmer. Dilution 1/7.	-	
Sample Colour*	N/A	Clear	Clear with suspended particles	Clear	Clear	Clear	Clear	-	
Tide*	N/A	Not applicable - no tide	Not applicable - no tide	Incoming	Incoming	Incoming	High	-	
Visual assessment of Flow Rate*	N/A	High flow	High flow	Tidal	Tidal	Tidal	Tidal	-	
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	Nil sewage odour	-	
Field Latitude*		-33.9446961	-33.945648	-33.954460	-33.955195	-33.955749	-33.997036	-	

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Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Field Longitude*		151.189942	151.188830	151.193110	151.194440	151.195757	151.142939	-	
GPS Error*	m	5	5	5	5	5	5	-	
Maximo WR No*	N/A	93606696	93606696	93606696	93606696	93606696	93606696	93606696	
Photo taken*	N/A	Yes	Yes	Yes	Yes	Yes	Yes	-	
Reason for sampling List*	N/A	Upstream site	Assess pollution extent	Precautionary	Precautionary, Primary Contact Recreational Waterway	Precautionary, Primary Contact Recreational Waterway	Estuarine reference site	-	
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	Large body of water	-	
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	-	-	-	Customer Hub	

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Depot Location*	N/A	-	-	-	-	-	-	South	
Role*	N/A	-	-	-	-	-	-	Incident Controller	
Comments*	N/A	-	-	-	-	-	-	FST did not observe sewage flowpath into Mill Stream. FST was unable to sample the inflow point as it was unknown and unsafe to access. Clean up crew on site.	
Field Assessment delivered date_time*	N/A	-	-	-	-	-	-	10/01/2025 17:47	

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Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Field evidence that sewage entered a waterway*	N/A	-	-	-	-	-	-	No	
Is Job Reportable*	N/A	-	-	-	-	-	-	Yes	
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	-	-	-	No sample sites indicative of sewage based on field tests and observations.	

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sewage flow path*	N/A	-	-	-	-	-	-	As per Noggin comments: SPS 038 went into inssuficienty capacity and sewage overflowed into Mill Stream and then into Foreshore Beach. Overflow was triggered due to recent wet weather conditions.	
Sewage material observed *	N/A	-	-	-	-	-	-	Not observed	
Signage and containment observed*	N/A	-	-	-	-	-	-	Signage, tape, sandbags.	
FS010 : Water and Air Temperature - Field Measurement									

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Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
FSG									
FS010 : Water and Air Temperature - Field Measurement(Continued)									
Temperature Sample	Deg C	25.0	27.2	27.0	26.2	26.5	25.7	-	
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	-	2.20	41.7	45.6	47.8	50.6	-	
Conductivity Low Range	uS/cm	192	-	-	-	-	-	-	
pH	pH units	8.01	7.52	8.03	8.00	7.97	8.05	-	
Dissolved Oxygen	mg/L	9.6	7.7	7.5	7.0	6.8	6.0	-	
Percent Dissolved Oxygen	%sat	116	97.1	109	103	101	102	-	
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	Negative	Negative	Negative	-	
FS080 : Ammonia - quantitative Field Test									
Total Ammonia Low Level	mg/L	-	0.13	-	-	-	-	-	

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Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
FSG									
FS080 : Ammonia - quantitative Field Test(Continued)									
Total Ammonia High Level	mg/L	-	-	<0.5	<0.5	<0.5	<0.5	-	
FS081 : Ammonia Toxicity and Site sensitivity									
Sensitivity Score*	N/A	Medium	Medium	Medium	Medium	Medium	Medium	-	
FS082 : Ammonia Toxicity									
Ammonia toxicity*	N/A	-	No	No	No	No	No	-	
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	~9	~14000	~18	~9	<9	~27	-	
Date of Performance	D/M/Y H:M	11/01/25 08:42	11/01/25 08:42	11/01/25 08:42	11/01/25 08:42	11/01/25 08:42	11/01/25 08:42		
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	130	59000	500	780	920	730	-	

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Sydney WATER Laboratory Services

Client Sample ID		3-1	3-2	3-3	3-4	3-5	3-6	Field Assessment	
Sampled Date		10/01/2025 01:52:00 PM	10/01/2025 02:34:00 PM	10/01/2025 03:20:00 PM	10/01/2025 04:02:00 PM	10/01/2025 04:06:00 PM	10/01/2025 04:57:00 PM	10/01/2025 05:47:00 PM	
Sample Number		L25003900	L25003901	L25003902	L25003903	L25003904	L25003905	L25003906	
MICRO									
Date of Performance	D/M/Y H:M	11/01/25 10:18	11/01/25 10:18	11/01/25 10:18	11/01/25 10:18	11/01/25 10:18	11/01/25 10:18		

(~): Counts of target colonies are outside the optimal precision range.

COMMENTS

Sample ID	Comment Level	Method	Test	Comment
L25003902	Sample	-	-	FS080 Total Ammonia: Detection limit raised due to sample matrix requiring dilution.
L25003903	Sample	-	-	FS080 Total Ammonia: Detection limit raised due to sample matrix requiring dilution.
L25003904	Sample	-	-	FS080 Total Ammonia: Detection limit raised due to sample matrix requiring dilution.
L25003905	Sample	-	-	FS080 Total Ammonia: Detection limit raised due to sample matrix requiring dilution.

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Corporate Accreditation No 63

Accredited for compliance with ISO/IEC 17025 - Testing

Sydney Water Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114

Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Analytical Report 318882

Issue Date: 22/01/2025
Issued By : Dinesh Kunasegaran, Sampling officer

Project : ER4-20250110-3
Job No : 93606696
Address : General Holmes Dr
Suburb : Botany

Attention: Mark McGowan
Customer: Environmental Response
Customer ID: 20025077

Address: Lot 3 Yato Rd, PRESTONS NSW 2170
Telephone: 4736-9152
Email: Mark.McGowan@sydneywater.com.au

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1. Sydney Water Approved Signatory
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3. Analytical results
4. Comments

Sydney Water Approved Signatory

Michael Fretin, Field Services Group Sampling officer
Jouliet Ashak, Microbiology Analyst
Kathryn Gamble, Microbiology Analyst

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

Sydney WATER Laboratory Services

SAMPLE SUMMARY

Client Sample ID	Sample Number	Sampling Procedure	Date Sampled	Date Received	Date Authorised	Description
3-2	L25005235	3	15/01/2025 10:38AM	15/01/2025	22/01/2025	Mill Stream, 500m west of 37 Bay St Botany. Upstream of Foreshore Rd bridge.
3-4	L25005236	3	15/01/2025 11:13AM	15/01/2025	22/01/2025	Foreshore Beach, 350m south west of 17 The Esplanade.
3-5	L25005237	3	15/01/2025 11:29AM	15/01/2025	22/01/2025	Foreshore Beach, 300m south west of 10 The Esplanade.
Field Assessment	L25005240	3	15/01/2025 12:06PM	15/01/2025	16/01/2025	Field Assessment

Sampling procedures

1 Samples analysed as received.
2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
3 Samples collected as per FS procedures SAWI 070.
4 Results reported as received from WNSW.

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Sydney WATER Laboratory Services

ANALYTICAL RESULTS

Client Sample ID		3-2	3-4	3-5	Field Assessment				
Sampled Date		15/01/2025 10:38:00 AM	15/01/2025 11:13:00 AM	15/01/2025 11:29:00 AM	15/01/2025 12:06:00 PM				
Sample Number		L25005235	L25005236	L25005237	L25005240				
FSG									
FS001 : Field Observations Including Weather Conditions									
General Comments*	N/A	Organic debris, riparian vegetation, leaf litter.	Sandy substrate , marine debris, seaweeds.	Sandy substrate, marine debris, seaweeds, one swimmer.	-				
Sample Colour*	N/A	Clear	Clear	Clear	-				
Tide*	N/A	High	High	High	-				
Visual assessment of Flow Rate*	N/A	Tidal	Tidal	Tidal	-				
ER Odour*	N/A	Nil sewage odour	Nil sewage odour	Nil sewage odour	-				
Field Latitude*		-33.945596	-33.955062	-33.955614	-				
Field Longitude*		151.188817	151.194482	151.195799	-				
GPS Error*	m	5	5	5.00	-				
Maximo WR No*	N/A	936066	93606696	93606696	93606696				

* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

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Client Sample ID		3-2	3-4	3-5	Field Assessment				
Sampled Date		15/01/2025 10:38:00 AM	15/01/2025 11:13:00 AM	15/01/2025 11:29:00 AM	15/01/2025 12:06:00 PM				
Sample Number		L25005235	L25005236	L25005237	L25005240				
FSG									
FS001 : Field Observations Including Weather Conditions(Continued)									
Photo taken*	N/A	Yes	Yes	Yes	-				
Reason for sampling List*	N/A	Previously affected	Previously affected, Primary Contact Recreational Waterway	Previously affected, Primary Contact Recreational Waterway	-				
Waterway depth (m)*	M	Large body of water	Large body of water	Large body of water	-				
Waterway width (m)*	M	Large body of water	Large body of water	Large body of water	-				
FS009 : ER Site Cleanup Recommendations									
Field Asssessment delivered to*	N/A	-	-	-	Environmental Response				
Depot Location*	N/A	-	-	-	South				
Role*	N/A	-	-	-	Environmental Response				

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"-" = Not required or refer to Laboratory comment

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Client Sample ID		3-2	3-4	3-5	Field Assessment				
Sampled Date		15/01/2025 10:38:00 AM	15/01/2025 11:13:00 AM	15/01/2025 11:29:00 AM	15/01/2025 12:06:00 PM				
Sample Number		L25005235	L25005236	L25005237	L25005240				
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Comments*	N/A	-	-	-	FST observed main beach access tape was broken. FST replaced damaged tape with new one.				
Field Assessment delivered date_time*	N/A	-	-	-	15/01/2025 12:03				
Field evidence that sewage entered a waterway*	N/A	-	-	-	No				
Is Job Reportable*	N/A	-	-	-	Yes				

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Sydney WATER Laboratory Services

Client Sample ID		3-2	3-4	3-5	Field Assessment				
Sampled Date		15/01/2025 10:38:00 AM	15/01/2025 11:13:00 AM	15/01/2025 11:29:00 AM	15/01/2025 12:06:00 PM				
Sample Number		L25005235	L25005236	L25005237	L25005240				
FSG									
FS009 : ER Site Cleanup Recommendations(Continued)									
Sample sites indicative of sewage based on field tests*	N/A	-	-	-	No sample sites indicative of sewage based on field tests and observations. Pending bacteriological results.				
Sewage material observed *	N/A	-	-	-	Not observed				
Signage and containment observed*	N/A	-	-	-	Signage and tape				
FS010 : Water and Air Temperature - Field Measurement									
Temperature Sample	Deg C	26.4	27.0	27.0	-				
FS067 : Field WQ Multimeter									
Conductivity High Range	mS/cm	33.7	52.1	52.4	-				

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Sydney WATER Laboratory Services

Client Sample ID		3-2	3-4	3-5	Field Assessment				
Sampled Date		15/01/2025 10:38:00 AM	15/01/2025 11:13:00 AM	15/01/2025 11:29:00 AM	15/01/2025 12:06:00 PM				
Sample Number		L25005235	L25005236	L25005237	L25005240				
FSG									
FS067 : Field WQ Multimeter(Continued)									
pH	pH units	7.53	8.02	8.03	-				
Dissolved Oxygen	mg/L	4.0	6.8	6.8	-				
Percent Dissolved Oxygen	%sat	56.3	104	104	-				
FS068 : Ammonia - Semi-quantitative Field Test									
Ammonia*	N/A	Negative	Negative	Negative	-				
MICRO									
MI03ASI : Enterococci by Membrane Filtration									
Enterococci	CFU/100mL	200	~45	<9	-				
Date of Performance	D/M/Y H:M	15/01/25 15:15	15/01/25 15:15	15/01/25 15:15					
MI58 : Faecal Coliforms by Tecta									
Faecal Coliform	CFU/100mL	770	630	~10	-				
Date of Performance	D/M/Y H:M	15/01/25 16:03	15/01/25 16:03	15/01/25 16:03					

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Sydney WATER Laboratory Services

Client Sample ID	3-2	3-4	3-5	Field Assessment				
Sampled Date	15/01/2025 10:38:00 AM	15/01/2025 11:13:00 AM	15/01/2025 11:29:00 AM	15/01/2025 12:06:00 PM				
Sample Number	L25005235	L25005236	L25005237	L25005240				

(~): Counts of target colonies are outside the optimal precision range.

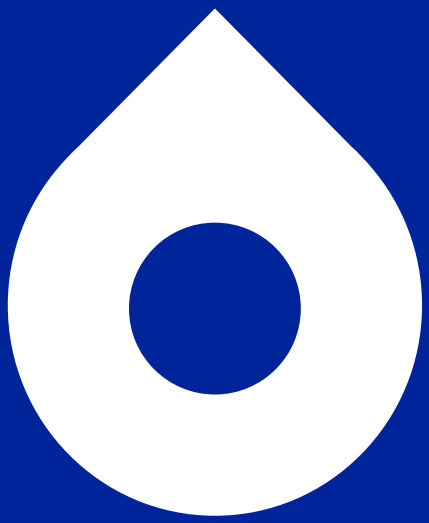
COMMENTS

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Millstream Overflow Performance Reporting

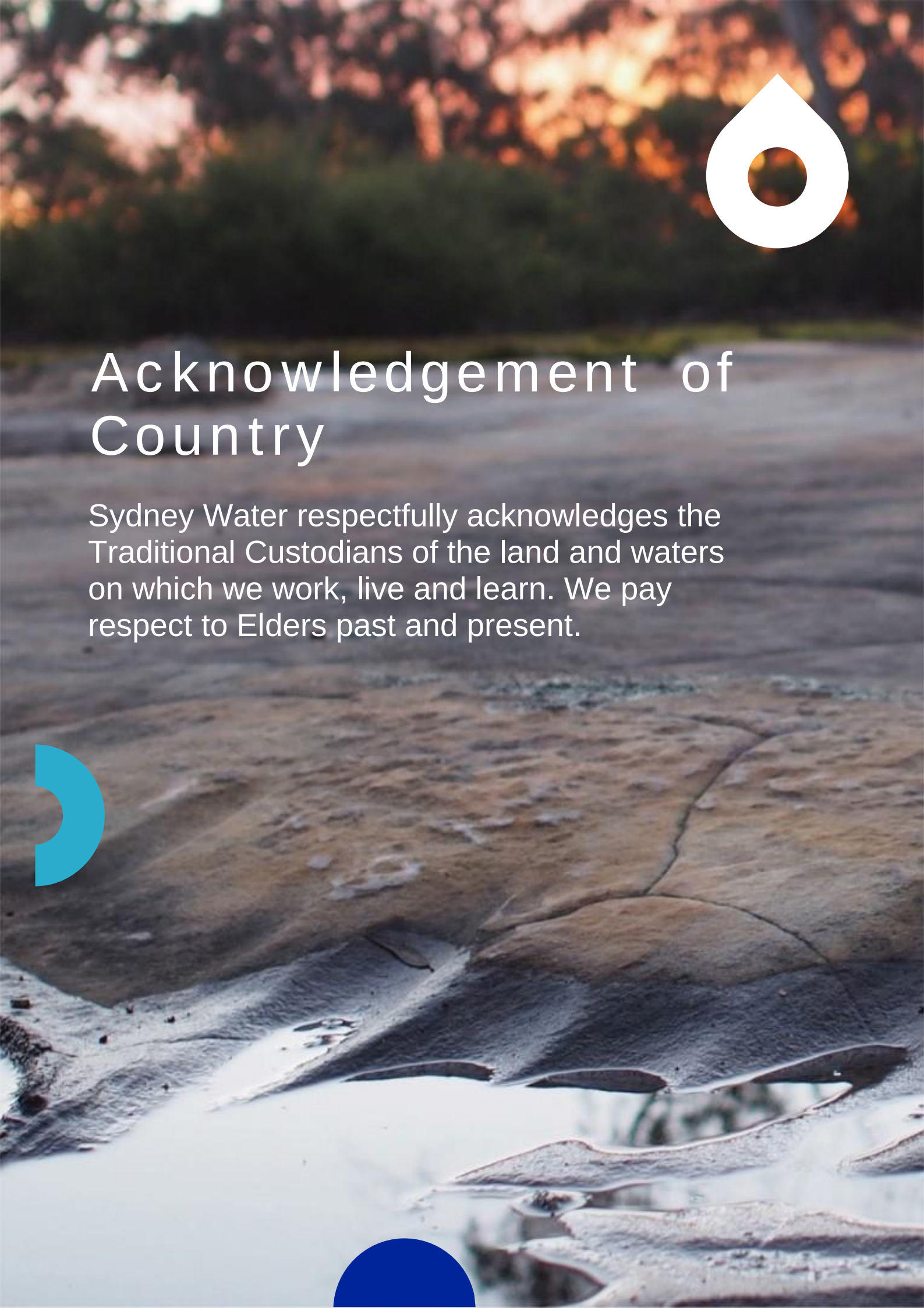
June 2024 to Dec 2024



sydneywater.com.au

xx/2023

Sydney WATER



Acknowledgement of Country

Sydney Water respectfully acknowledges the Traditional Custodians of the land and waters on which we work, live and learn. We pay respect to Elders past and present.

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1. Introduction

1.1 Background

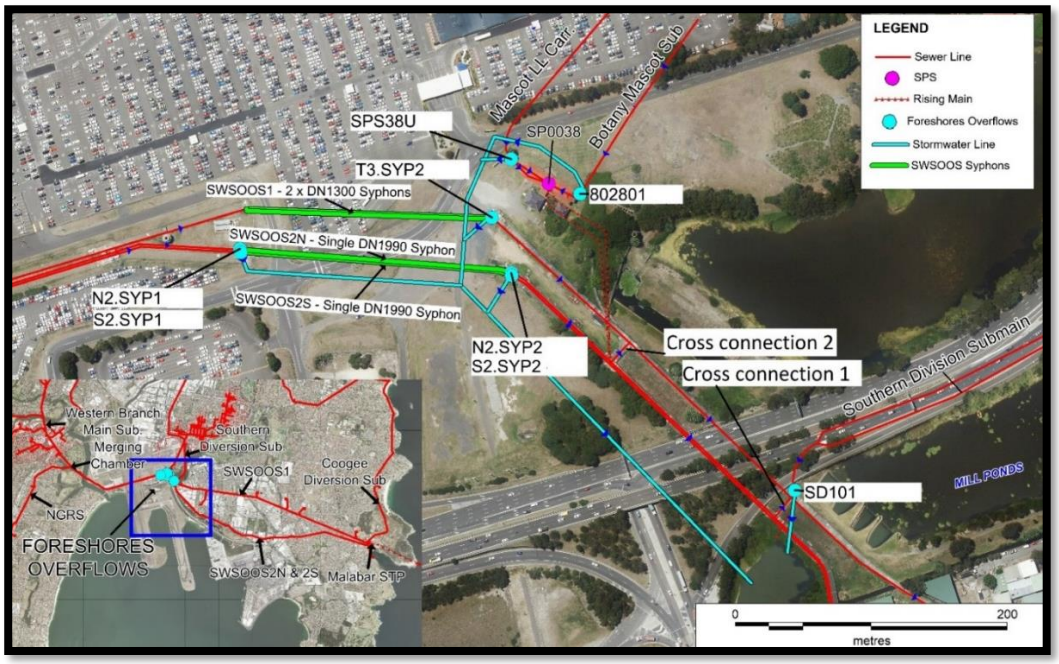
The Mill Stream ERS discharge is located on and potentially impacts air, land and waters of the Kingsford Smith Airport Site. Given this, it requires authorisation (Licencing) under Federal Legislation (Airport Act) and Airport Environment Protection Regulations. The Licence has a period of 3 years. At the end of 3 years a further Licence must be requested.

There are currently eight sewer overflows from SWSOOS1, SWSOOS2N, SWSOOS2S and SP0038 that discharge wet weather overflow into Mill Stream via stormwater channels. These overflow discharge frequency and volumes are causing issues where the Environment Protection Authority (EPA) and the Airport Authority are expressing great concerns.

The ERSs are located on federally owned land at Sydney Airport and has potential air and water impacts. This requires Sydney Water to gain an authorisation under the Airports (Environment Protection) Regulation (AEPR) 1997, issued by the Department of Infrastructure, Transport, Regional Development and Communications (DITRC) to operate this ERS.

The locations of the eight overflows designed to discharge to Mill Stream are shown in **Figure 1**.

Figure 1 - Mill Stream overflow location map



1.1 Millstream Overflow performance

The modelled overflow performance is an average, calculated against an existing time series of rainfall that represents a range of weather conditions (10 years, 1985 – 1994). This time series is used by Sydney Water to provide a consistent and comparable assessment of the wastewater system performance as the system is changed through maintenance activities, upgrades, and ongoing development/population growth. The model is also calibrated with data sourced from flow gauges, level and pressure sensors, that continually monitor the network. This method is consistent with the process Sydney Water uses for reporting compliance with our Environment Protection Licences regulated and assessed by the NSW EPA. However, it is an averaged metric and cannot be used to compare to overflow activity observed during smaller weather periods, particularly more extreme periods such as flooding or drought. To address that Figure 1-3, represents how that average performance sits within the seasonal variability accounted for in the modelled time series, and as could be directly observed year to year at Mill Stream.

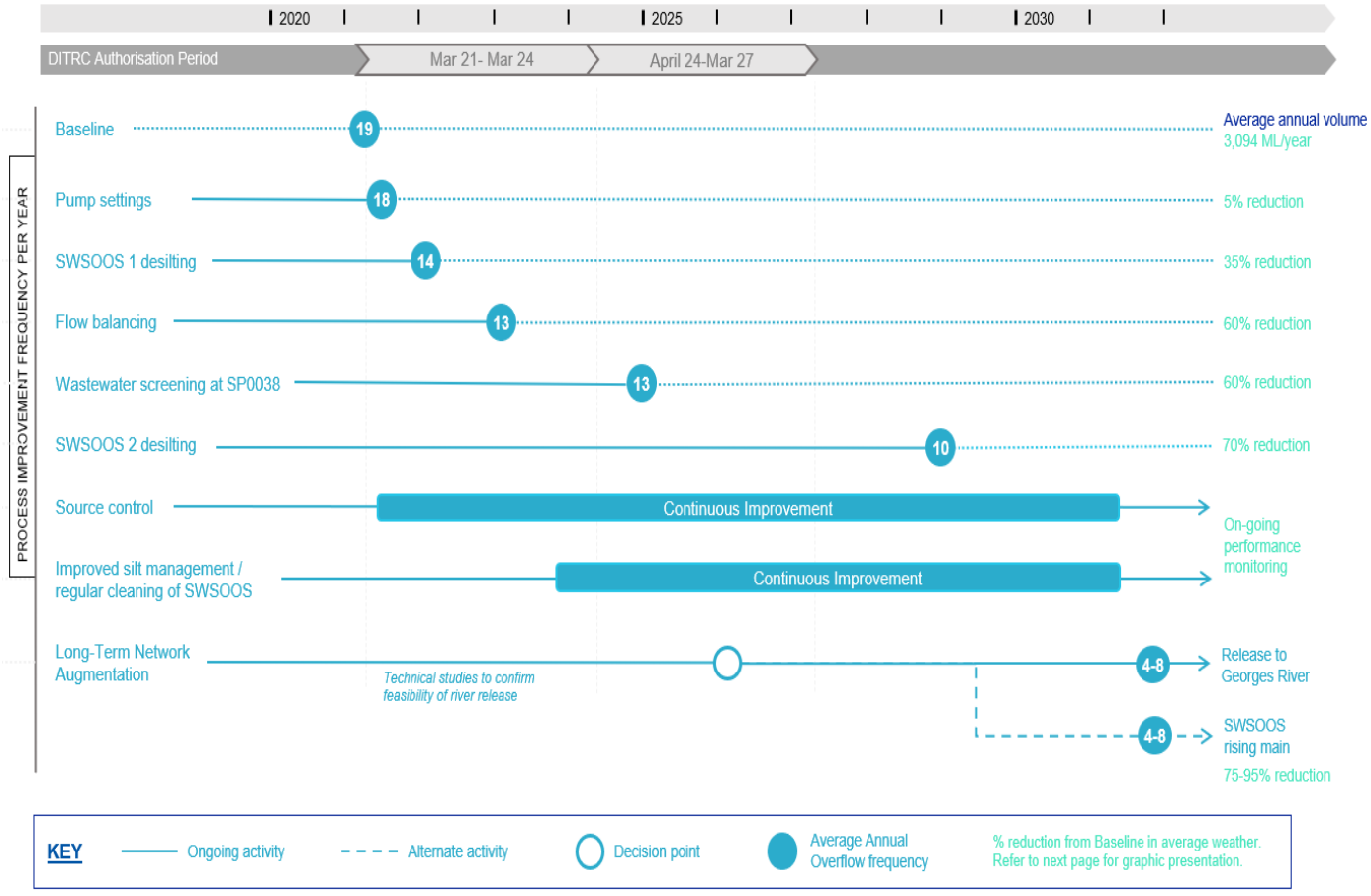


Figure 2 Millstream plan on a page (1), indicating overflow performance from asset works

Please note: performance beyond 2023 is an estimate based on assumed benefit from future works



Figure 3 Mill Stream plan on page (2) indicating seasonal variability in performance

2. Hydraulic modelling

The Malabar network model run code (MALHNG) was used for recalibration to assess the performance of the Millstream overflow for the period June 2024 to Dec 2024.

2.1 Flow Monitoring

A list of flow gauges used are provided in **Table 2-1**. A location plan of the gauging network is **Figure 2-1** and schematic diagrams showing the required network are provided in **Error! R eference source not found.** and **Figure 2-3.**

Table 1 - SWSOOS Flow Gauges List

Gauge	Conduit	Data Recorded		
		Level	Velocity	Flow
802310	Southern Division Submain End	Yes		
802065	SWSOOS 1 Syphon Upper leg	Yes		
802001	SWSOOS 1	Yes	Yes	Yes
802051S	SWSOOS 2S	Yes	Yes	Yes
802051N	SWSOOS 2N	Yes	Yes	Yes
802064	SWSOOS 2N upper leg	Yes		

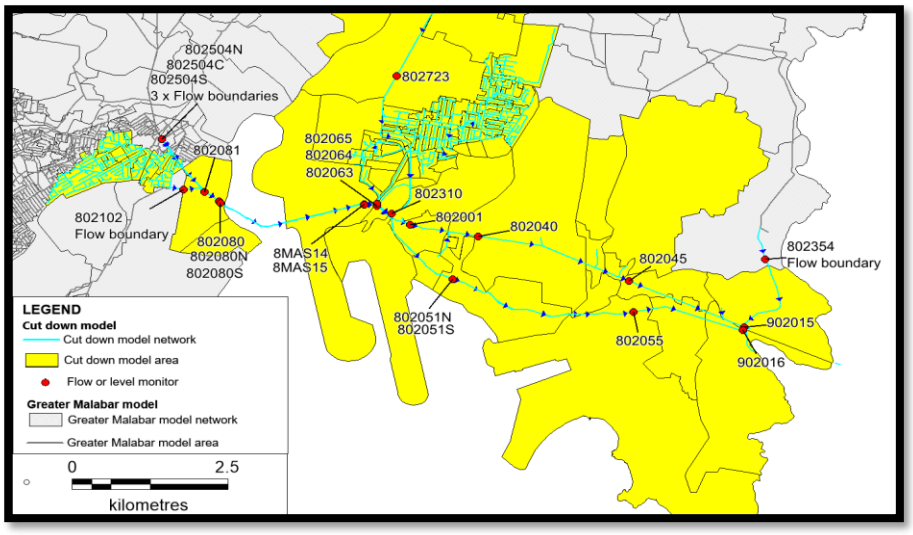


Figure 4 SWSOOS Gauge Location Plan

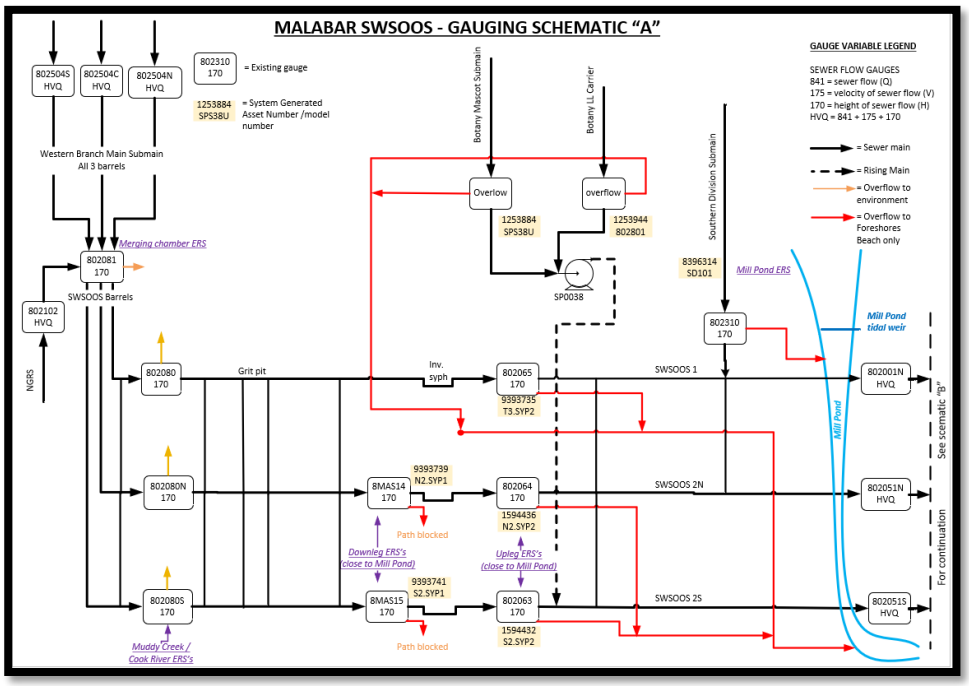


Figure 5 SWSOOS Flow Gauging Schematic A

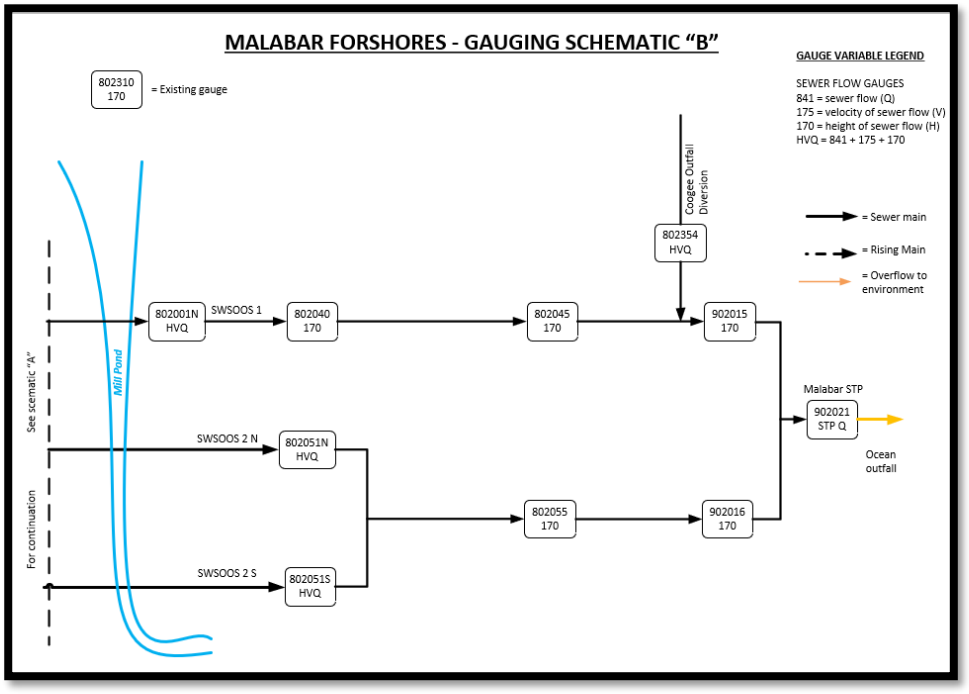


Figure 6 SWSOOS Flow Gauging Schematic B

2.2 Model calibration

The model was calibrated for the period Jan 2024 to Dec 2024. The calibration plots are in **Attachment A**.

2.3 Millstream Overflow Performance

The baseline set in the March 2021 authorisation under the Airports (Environment Protection) Regulation (AEPR) 1997, issued by the Department of Infrastructure, Transport, Regional Development and Communications (DITRC) is overflow frequency/year of 19 and overflow volume of 3094 ML/year.

The following short-term options are currently in progress in the period June 2024 to Dec 2024:

1. De-silting of SWSOOS 2
2. Source control work.
3. Wastewater screening

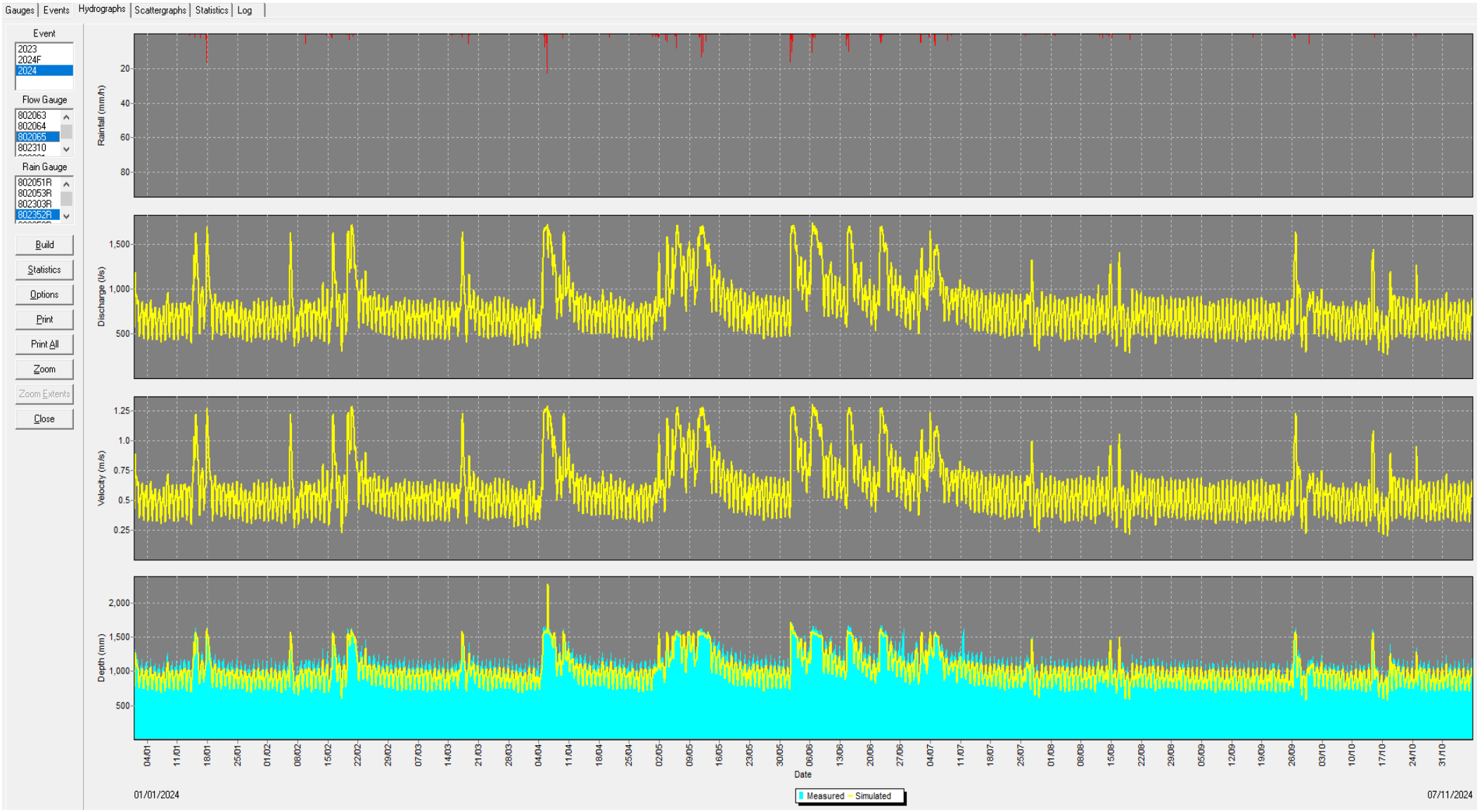
The recalibrated model was simulated using the rainfall time series 1985 to 1994 used for Environmental Protection Licence (EPL). **Table 2-2** provides the comparison of the overflow performance of all 8 Emergency Relief Structures (ERS) discharging into Millstream against the 2021 baseline.

Table 2 Millstream overflow performance comparison between Baseline and December 2024

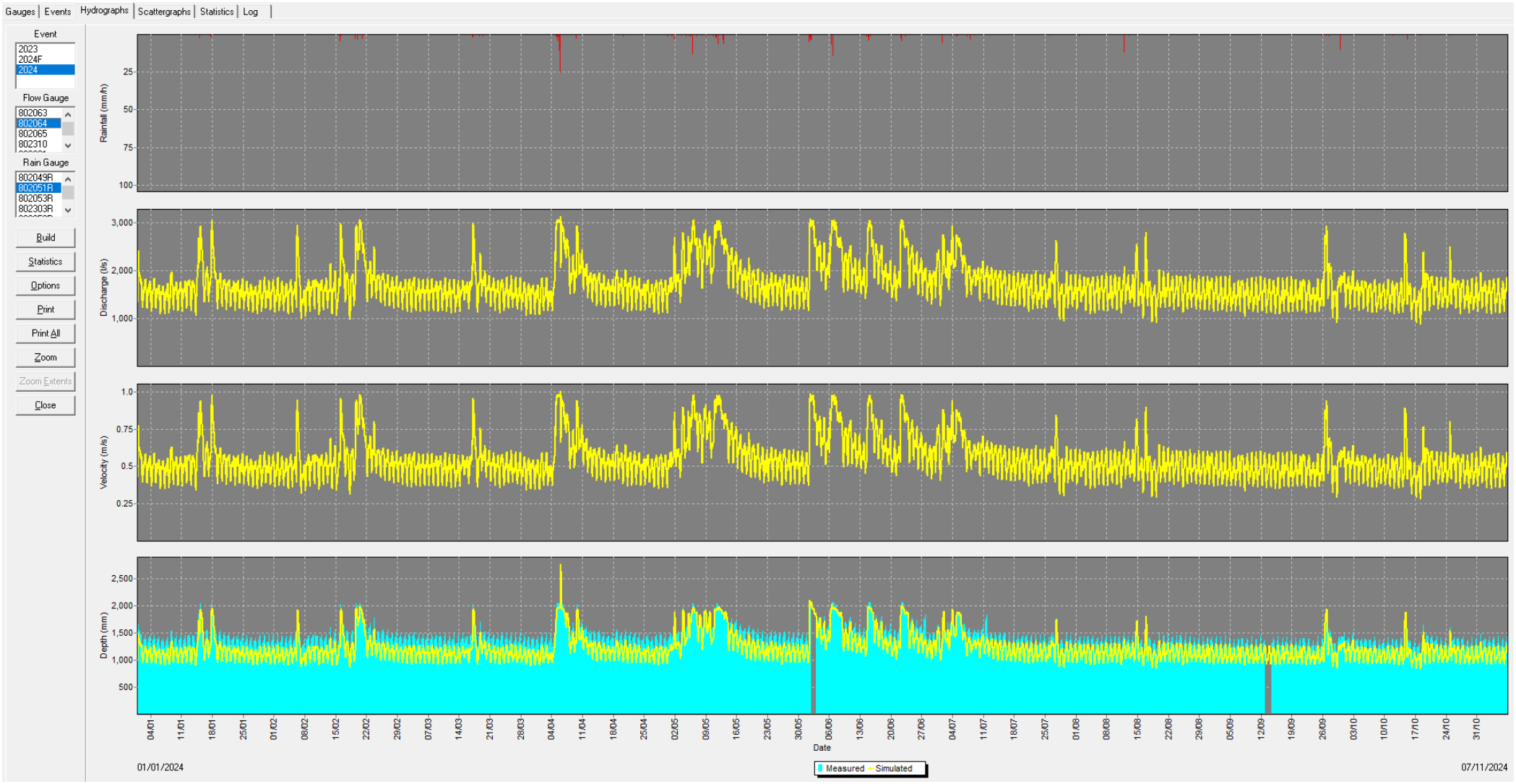
Overflow Location	Conduit	Baseline		December 2024 Performance	
		Frequency/year	Volume (ML/Year)	Frequency	Volume (ML/Year)
N2.SYP1	SWSOOS 2N (Syphon Upper leg)	7	0.2	7	0.2
S2.SYP1	SWSOOS 2S (Syphon Upper leg)	9	0.3	9	0.3
T3.SYP2	SWSOOS 1	18	771	13	76.9
N2.SYP2	SWSOOS 2N (Syphon Lower leg)	7	119	12	306.1
S2.SYP2	SWSOOS 2S (Syphon Lower leg)	8	133	12	335.0
SD101	Southern Branch weir	19	34	13	5.8
SD101	Southern Brach Syphon	16	2037	10	514.3
SPS38U	Botany Low Level Carrier	0	0	0	0
802801	Botany Mascot Submain	0	0	0	0
Total		**19**	**3094**	**13**	**1238**

Attachment A

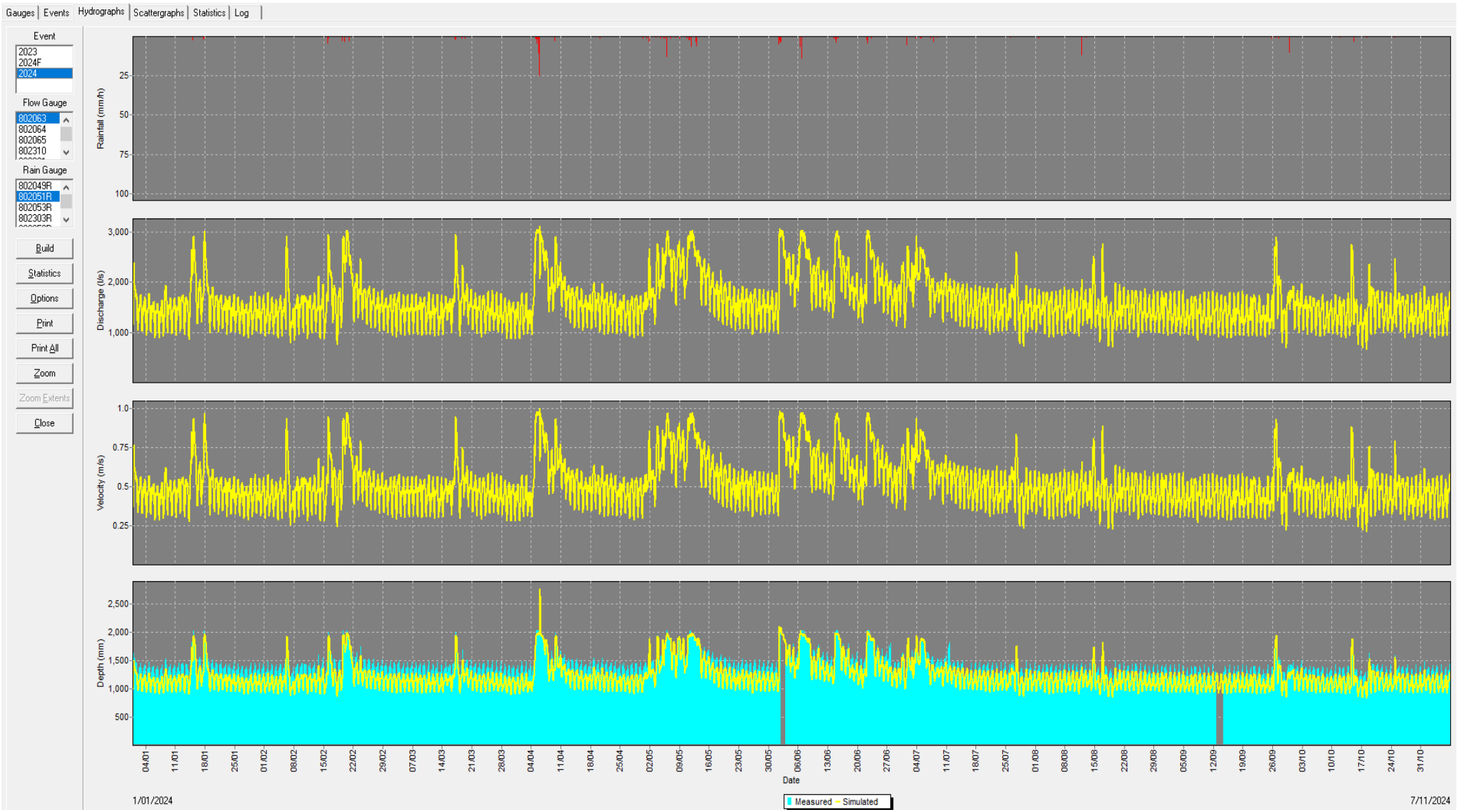
Gauge 802065



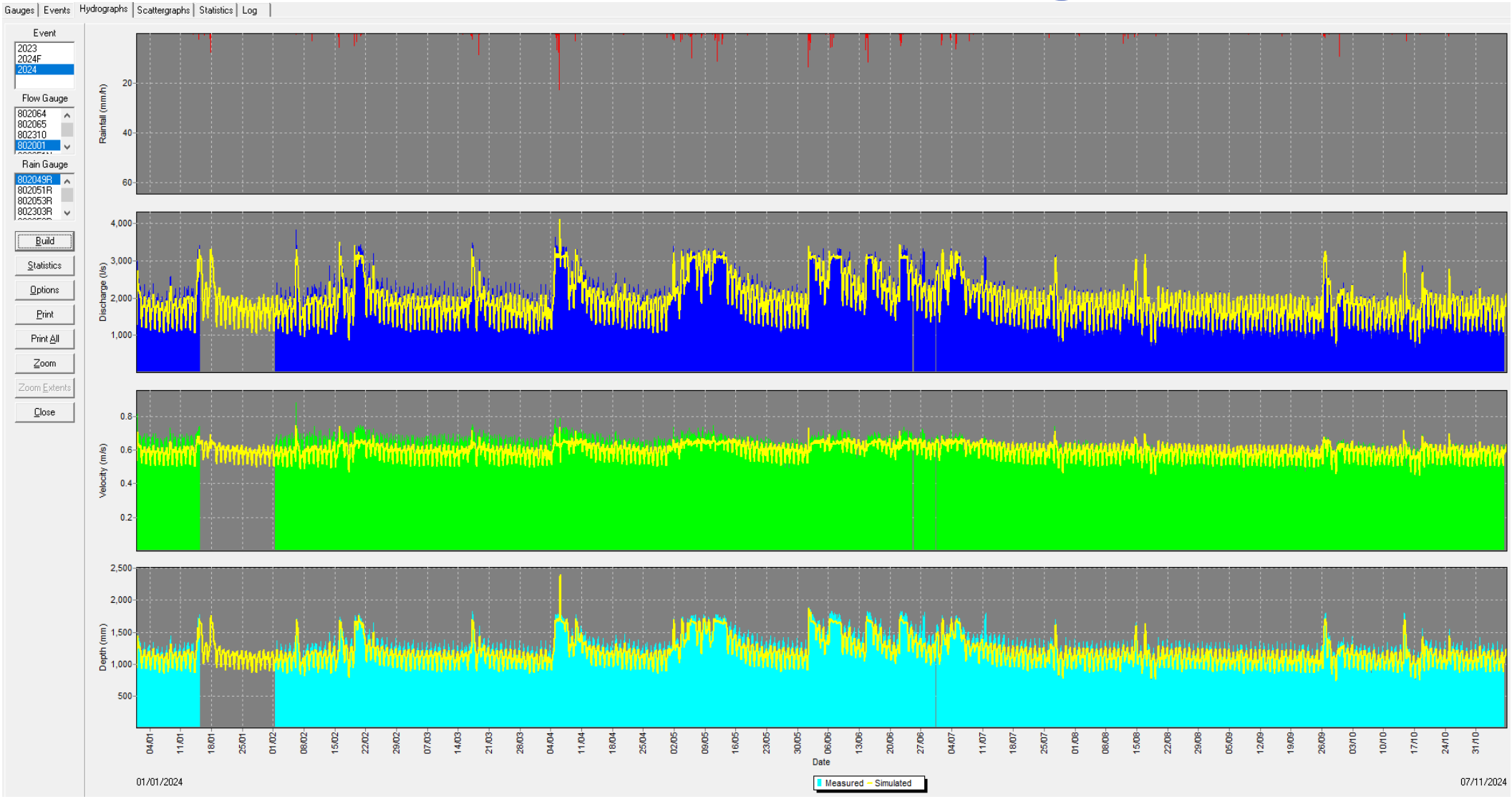
Gauge 802064



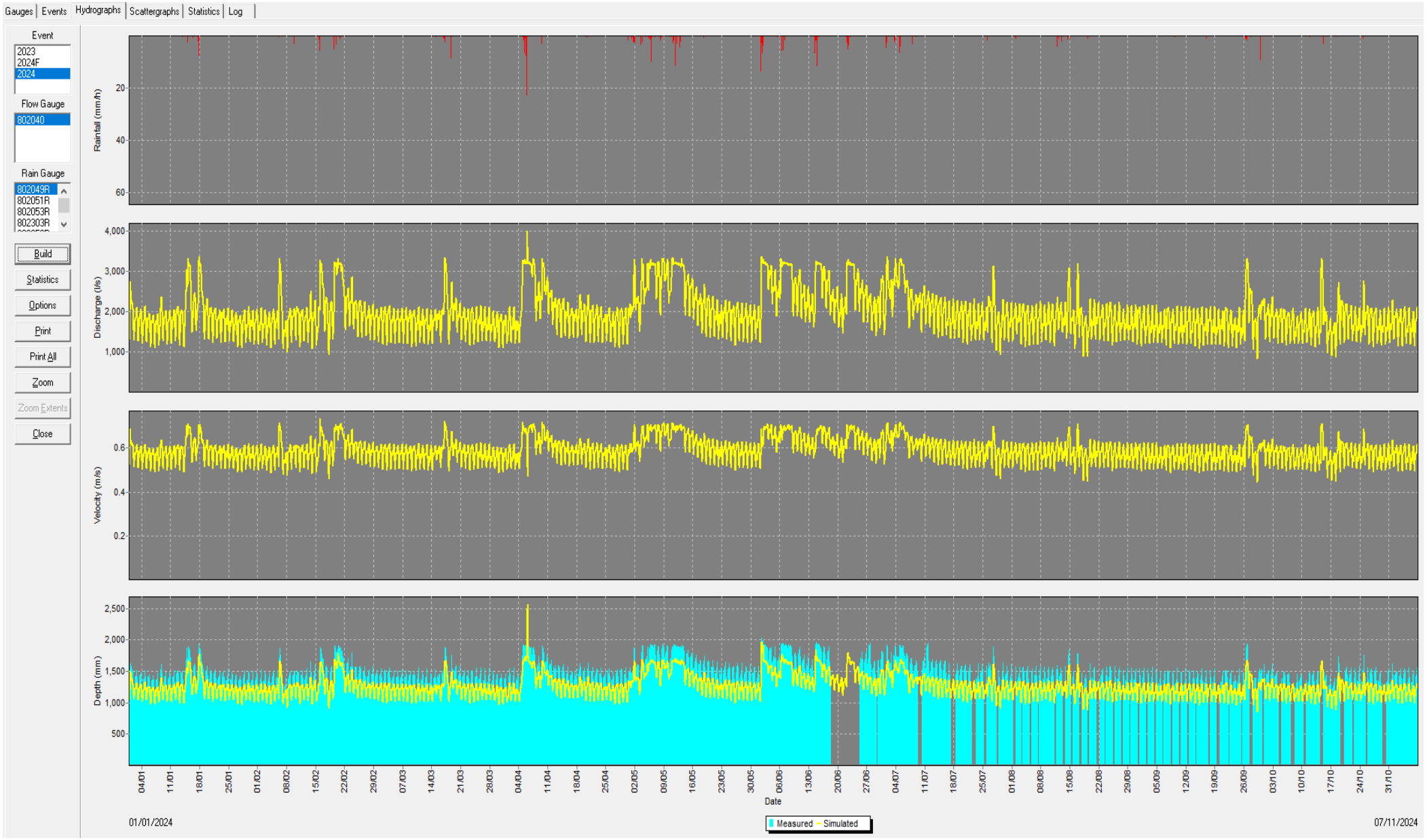
Gauge 802063



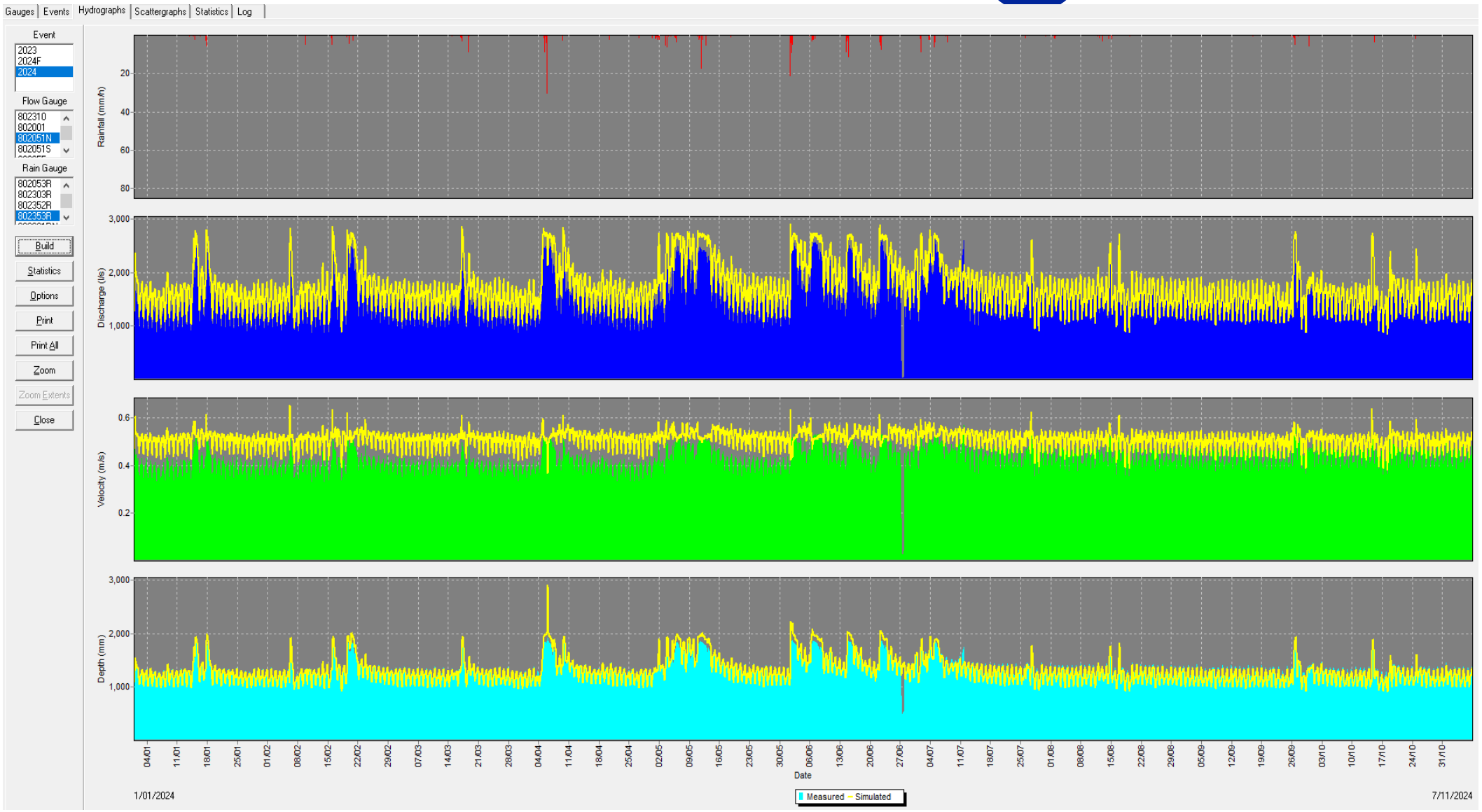
Gauge 802001



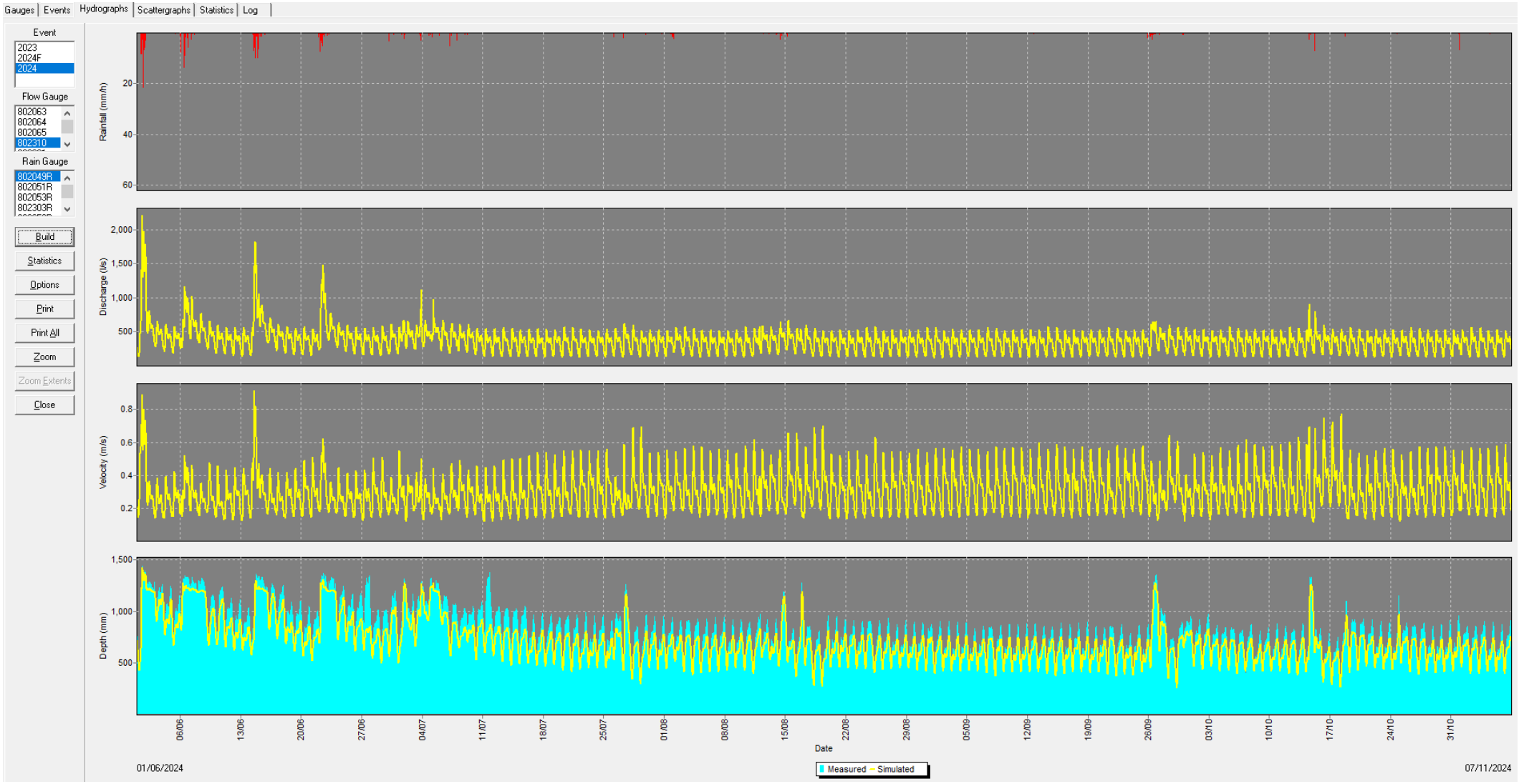
Gauge 802040



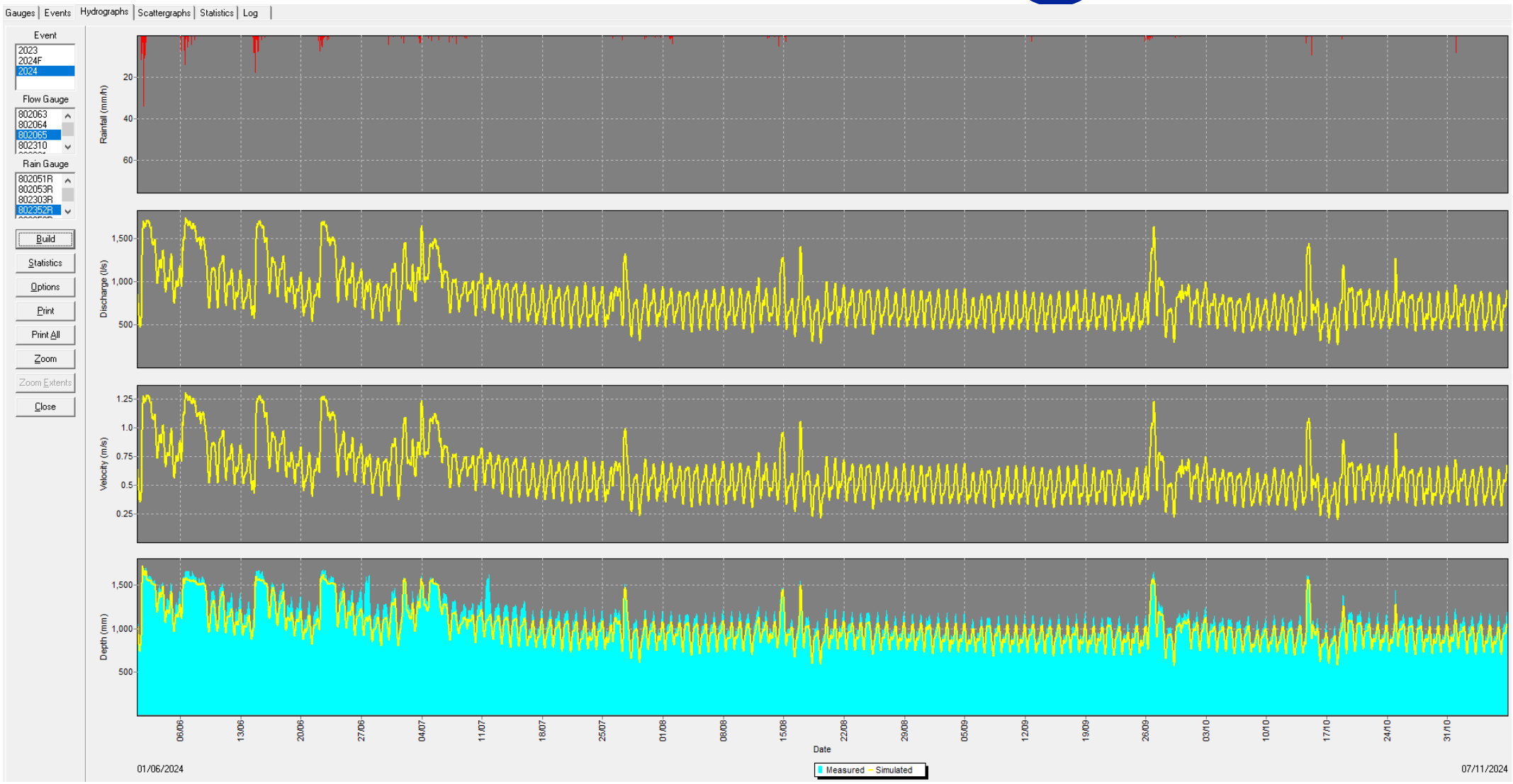
Gauge 802051N



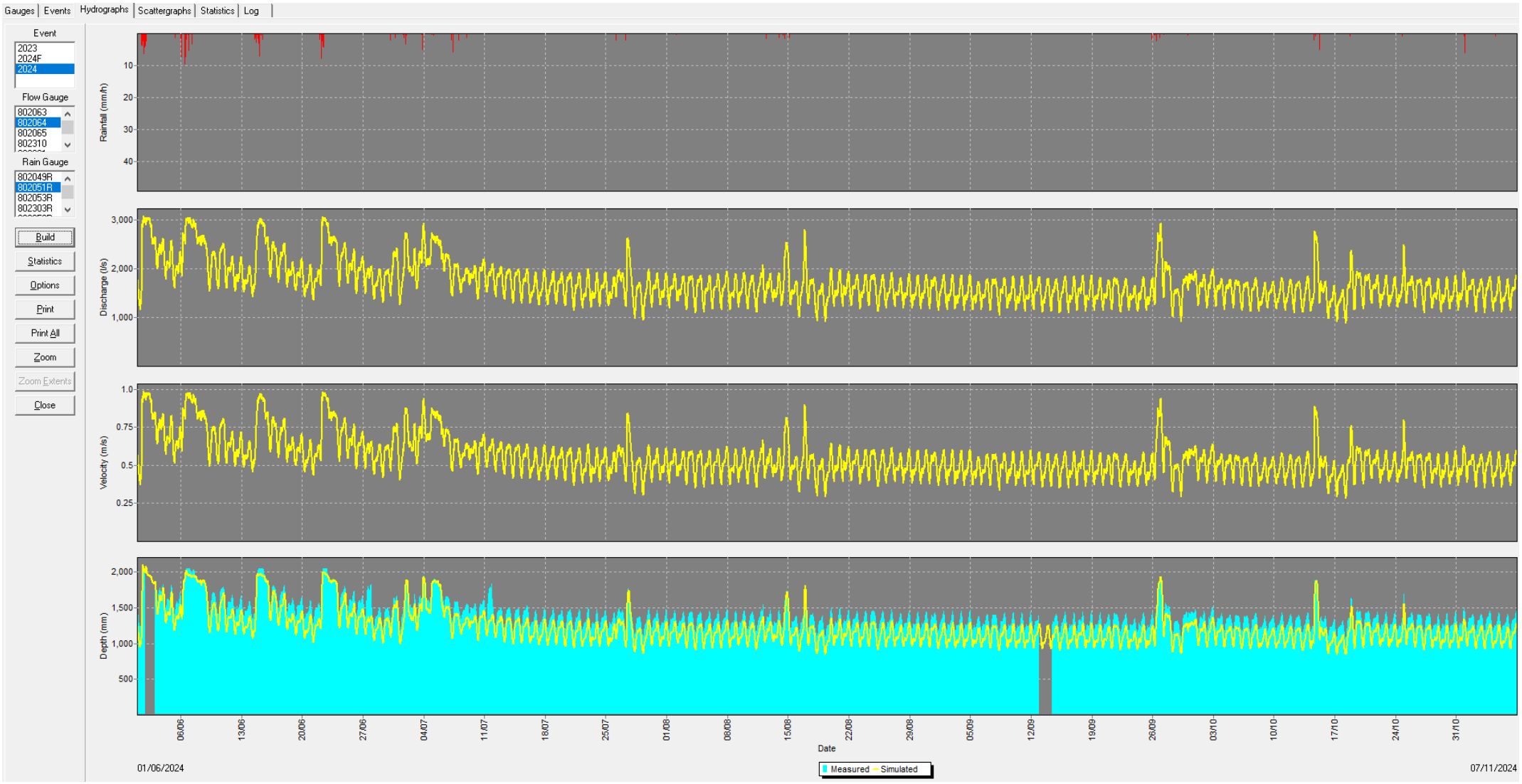
Gauge 802310



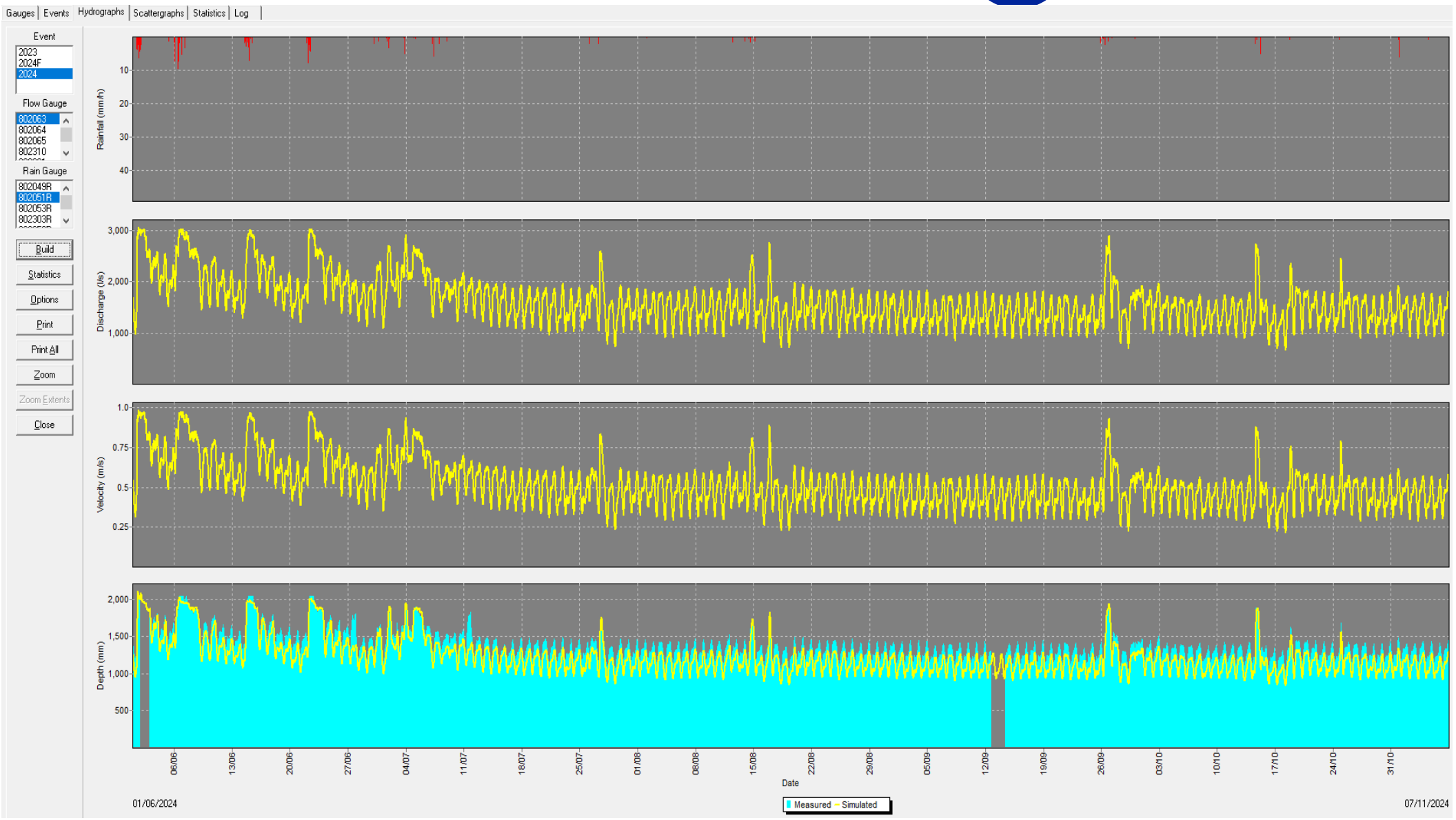
Gauge 802065



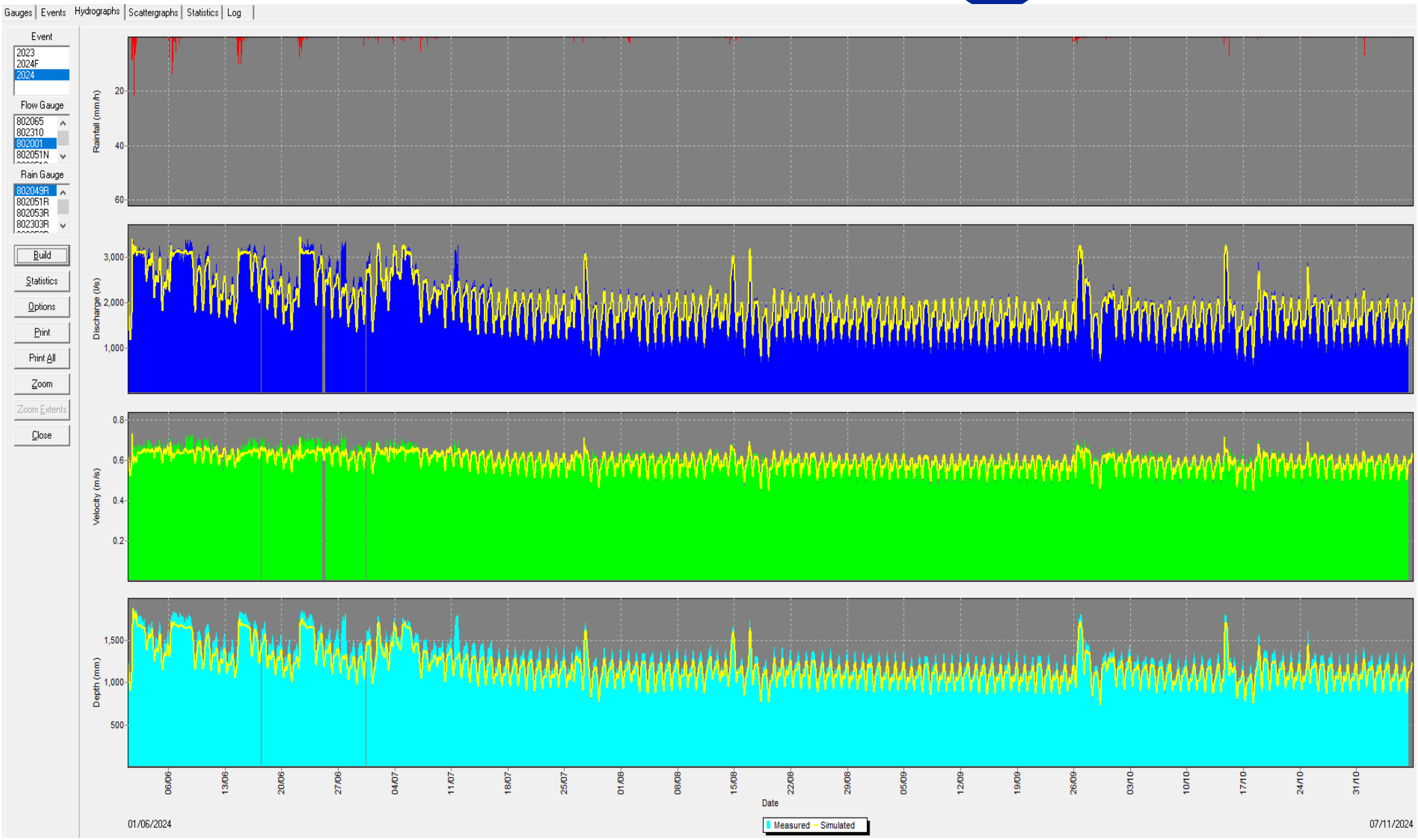
Gauge 802064



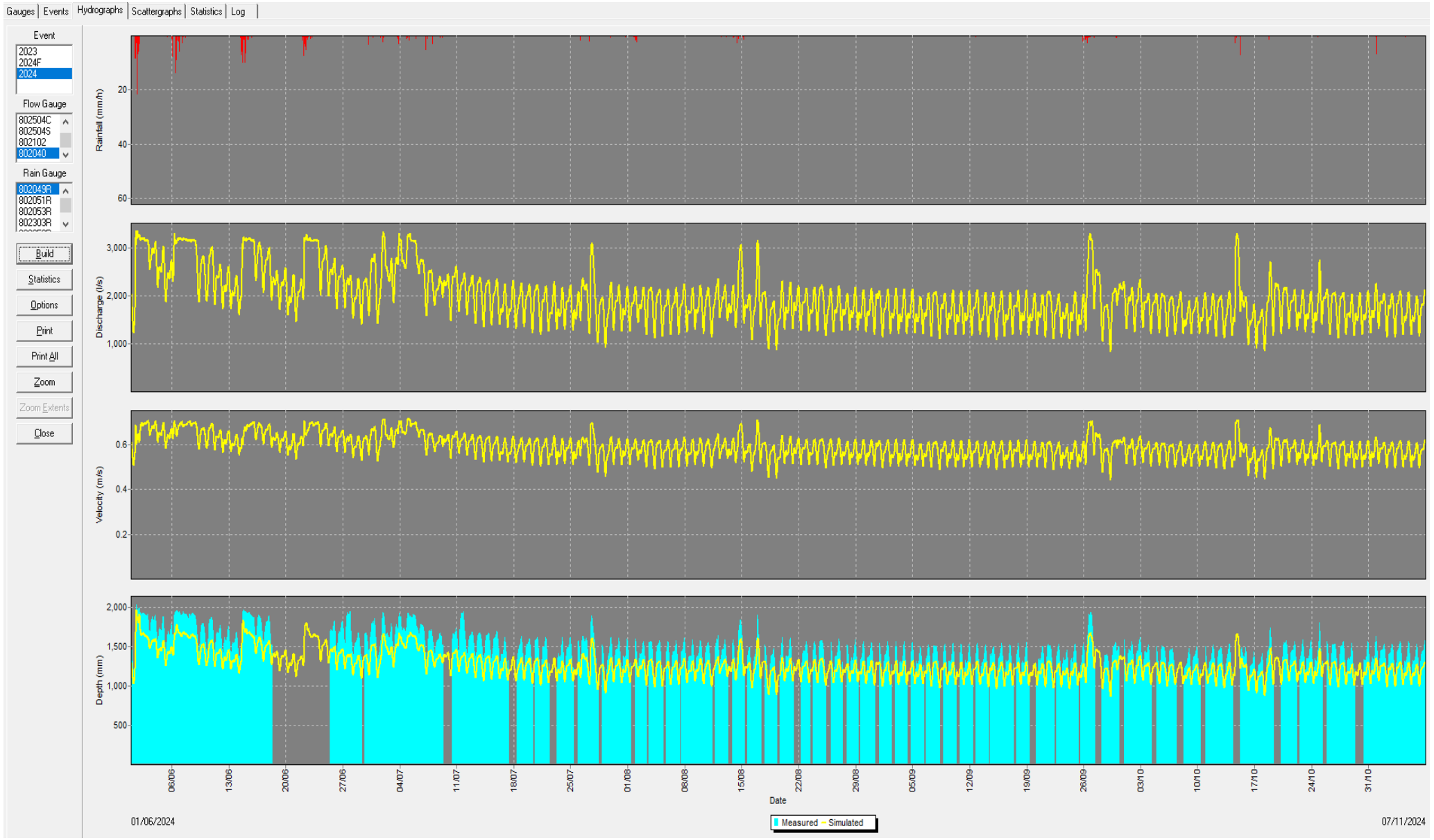
Gauge 802063



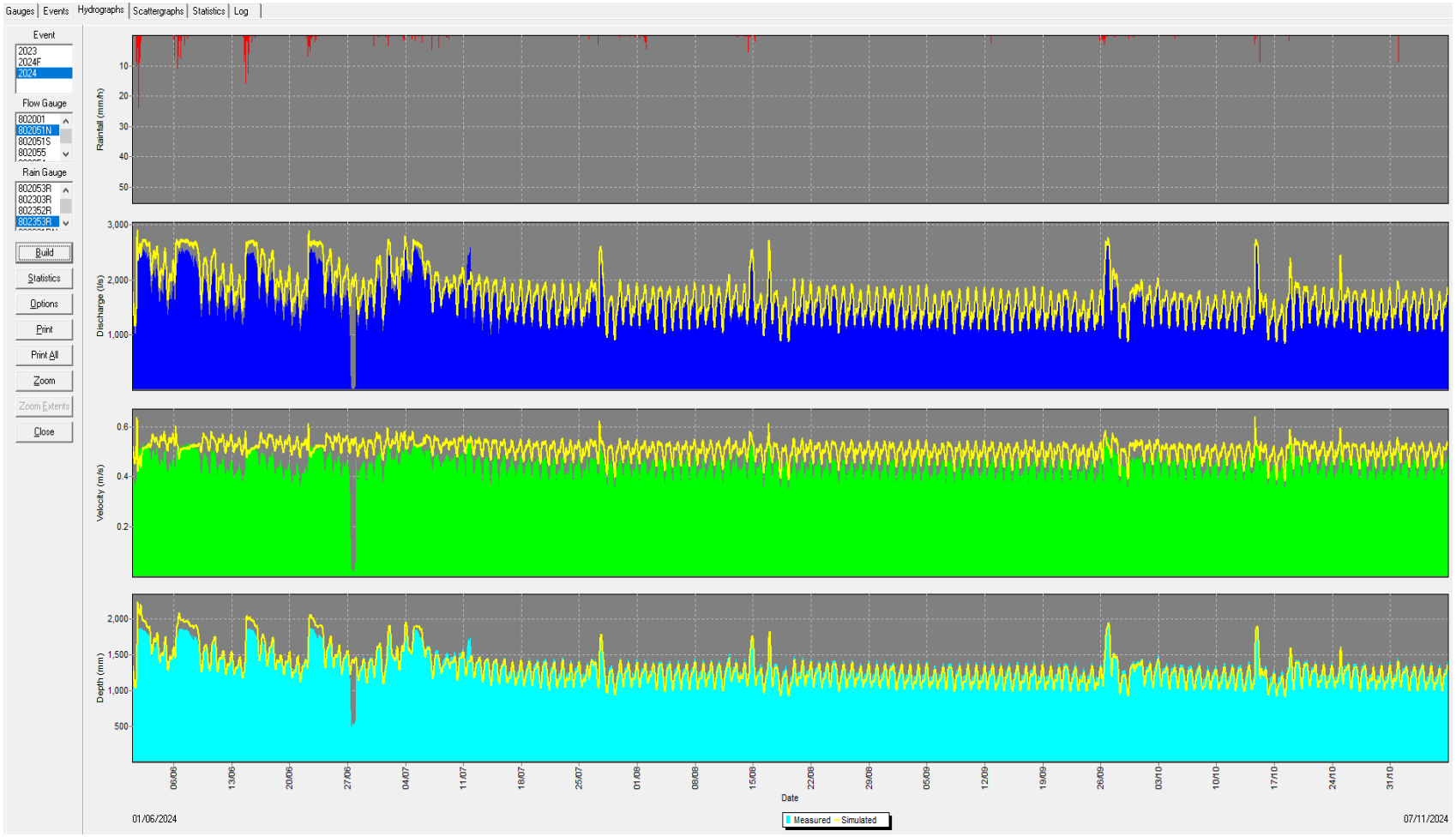
Gauge 802001



Gauge 802040



Gauge 802051N



Gauge 802051S

