Environmental Compliance Approval #315-S701, Issue Number 1

Prepared by: Stormwater Programs, Environment & Development Engineering

# 2025 ANNUAL PERFORMANCE REPORT

## Brampton Stormwater System

June 25, 2026

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| Environmental Compliance Approval Number | 315-S701, Issue Number 1 |
| System Owner | The Corporation of the City of Brampton |
| Name of Municipal Stormwater Management System | City of Brampton Stormwater System |
| Reporting Period | January 1, 2025 – December 31, 2025 |

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# 1. Introduction

This report has been prepared in accordance with the City of Brampton's Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA) to submit an annual performance report to the Ministry of Environment, Conservation and Parks (MECP) summarizing the status of the Brampton Stormwater System (hereafter "Stormwater System") for the reporting period of January 1, 2025 to December 31, 2025. Table 1 cross-references CLI ECA requirements in this report.

*Table 1. CLI ECA Compliance*

| CLI ECA Schedule E Requirements | Section in this Report |
|---|---|
| 5.2.2 | 2 |
| 5.2.3 | 2 |
| 5.2.4 | 3.2 |
| 5.2.5 | 3.1 & 3.3 |
| 5.2.6 | 4 |
| 5.2.7 | 3.4 |
| 5.2.8 | 3.5 |
| 5.2.9 | 5 |
| 5.2.10 | 3.6 |
| 5.2.11 | 3.7 |

The Stormwater System consists of approximately 180 stormwater management (SWM) ponds and an extensive network of conveyance infrastructure including ditches, culverts, outfalls, watercourses and 1,464 km of storm sewers and foundation and roof rain collector systems (third pipe collection system). The system also includes Low Impact Development (LID) facilities and water quality treatment units designed to support stormwater quantity and quality management across the city.

# 2. Monitoring Data & Environmental Trends

Appendix A summarizes monitoring data and environmental trends in Brampton's watersheds over the last five years, excerpted from the Draft Brampton Stormwater Monitoring Baseline Reference Report (Carman et al. 2026). The report established a summary of baseline water quality data collected by Credit Valley Conservation (CVC) and Toronto and Region Conservation Authority (TRCA). Surface water quality data from CVC and TRCA were reflective of 2020-2024, while benthic invertebrate data were reflective of 2020-2023 for TRCA stations and 1999-2023 from CVC stations.

Detailed analysis of existing monitoring data highlighted that each of Credit River, Mimico Creek, Etobicoke Creek and West Humber River watersheds within the City demonstrate exceedances of Provincial Water Quality Objective (PWQO) values in some of the key water quality indicators (TSS, chlorides, nutrients) due to anthropogenic factors (industrial activities and urbanization) and should generally be considered as Policy 2 receivers (i.e. impaired waters). Policy 2 receivers are watercourses that represent degraded environmental states and thus must be protected to ensure that water quality parameters remain consistent or trend towards reducing the frequency and magnitude of exceedances of PWQO[1]. There may be subwatersheds upstream of existing water quality stations that do not exceed PWQO values, but those locations cannot be determined until the new monitoring program provides more thorough baseline sampling. Degradation like this is expected in urban areas with gaps in stormwater management controls, as is the case in parts of Brampton which developed prior to modern stormwater management best practices.

Further review of existing data indicates that benthic macroinvertebrate (BMI) communities across these watersheds are typical of urbanized environments. Communities are generally low in richness and diversity and are dominated by tolerant taxa associated with lower-gradient habitats.

The baseline conditions described here provide a foundation for detecting chronic water quality changes, informing stormwater management decisions, and evaluating whether management actions are having the intended effect. The City plans to implement the new Monitoring Plan in 2027, pending approval, to further evaluate performance of the Stormwater System.

# 3. Operating, Inspection & Maintenance Programs

## 3.1. Summary of Programs

To support the effective operation and long-term performance of the Stormwater System, the City implements a range of preventative maintenance (operational) and inspection programs. These programs are designed to monitor asset condition, identify potential issues, and maintain the functionality of stormwater infrastructure. The frequency of program activities may vary based on operational requirements and changes to Levels of Service. A summary of the City's operating and inspection programs, along with the work completed during the 2025 reporting period, is provided in Table 2.

[1] MOE Procedure B-1-5: Deriving Receiving Water Based Point Source Effluent Requirements for Ontario Waters (MOE 1994).

*Table 2. Summary of Operating and Inspection Programs and Work Completed*

| Program Name | Type of Program | Frequency | Completed in 2025 | Contract v. Internal |
|---|---|---|---|---|
| Beaver Bafflers | Inspection | Biannual | 17 assets | Internal |
| Catchbasin Cleaning | Operating | Annual for Arterial & Industrial roads<br>Biennial for Collector & Local roads | Arterial, Industrial, Collector & Local roads | Internal |
| Culverts | Inspection | Biennial | 1,178 assets | Internal |
| Ditches | Inspection | New program | N/A | Internal |
| Outfalls | Inspection | Biennial | 541 assets | Internal |
| Outfall Flapgates | Inspection | Biannual | 10 assets | Internal |
| LIDs | Inspection | New program | N/A | Internal |
| Pond, Wetland and Lake Condition Assessments | Inspection | Every 15 Years | 185 assets | Contract |
| Sewer CCTV | Inspection | Every 10 years | 76 km | Contract |
| Sewer and Culvert Flushing | Operating | One index map of FDCs done annually, otherwise on demand | One index map | Contract |
| Street Sweeping | Operating | Biannual | Streets, island & medium sweeping | Contract |
| Watercourse Erosion | Inspection | Annual<br>(on a rotating basis) | 10 sites | Contract |
| Stream Restoration | Operating | Annual | 3 sites | Contract |
| Water Quality Units | Inspection | Per inspection | 128 assets | Contract |

The new LID inspection and ditch inspection programs are scheduled to begin in 2026 and 2027, respectively.

The condition of the City of Brampton's stormwater infrastructure is assessed through the City's Asset Management Program based on inspections or the age of assets. The City of Brampton's *2025 Stormwater Asset Management Plan* (AMP) found that the overall condition of the Stormwater System is "Good" and illustrated the distribution of asset condition grades by asset category in . Additional details regarding asset condition assessment methodologies and results are provided in the AMP.

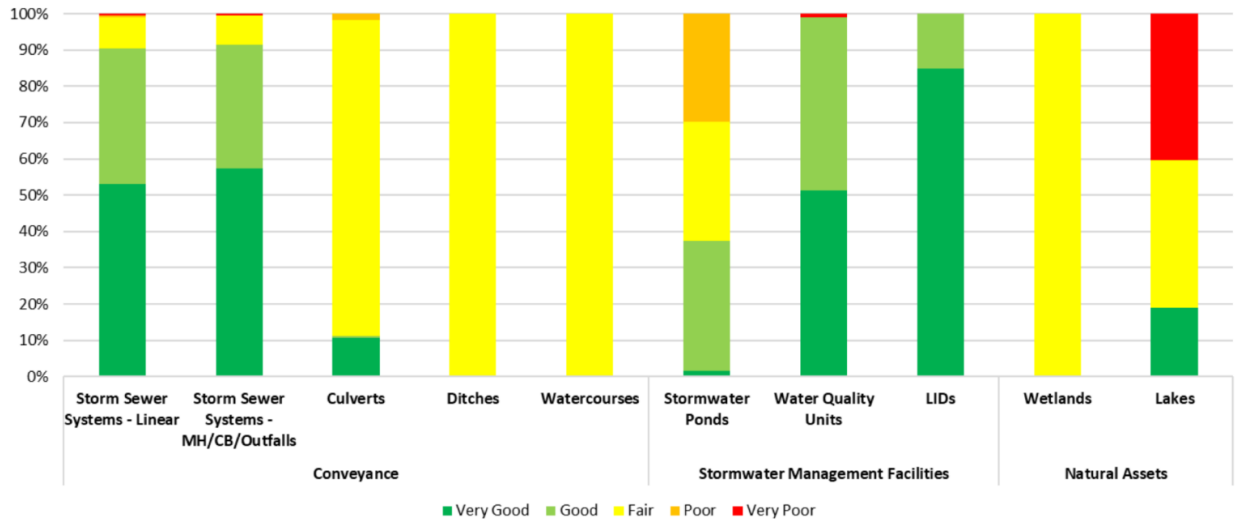


*Figure 1. Asset Condition Grade Profile by Percentage (by Asset Category)*

Deficiencies identified through inspections are addressed through the City's maintenance and repair programs, which are tracked through work orders and summarized in the following section.

## 3.2. Maintenance & Repairs

Deficiencies identified through inspection and monitoring programs, as well as through operational activities, are prioritized and addressed through maintenance and repair activities that are undertaken throughout the year. When more significant rehabilitation or infrastructure upgrades are required, projects may be incorporated into the City's capital improvement program to restore or improve system performance.

Maintenance activities are typically tracked through work orders within the City's asset management and operations system, *CityWorks*. Table 3 summarizes maintenance and repair work orders completed during the 2025 reporting period.

*Table 3. Completed work orders per maintenance activity in 2025*

| Maintenance Activity | Work Orders Completed | Corrective Actions |
|---|---|---|
| Outfall & Headwall Repairs | 13 | Parging cracks, debris removal, gate closure |
| Storm Sewer Repairs | 166 | Localized pipe repairs and debris removal |
| Baffler Maintenance | 4 | Reposition baffler, remove debris buildup |
| Sewer and Culvert Flushing | 166 | Asset flushing including FDC and storm mains |
| Street Sweeping | 4,074 km | 3,923 lane km and 124 km of island and medium sweeping |
| Catchbasin and Maintenance Hole Repairs | 15,606 | CB cleaning, frame repair, lid replacement |
| Water Quality Unit Cleaning | 32 | Cleanouts and repairs |

## 3.3. Rehabilitation of the Authorized System

Throughout the reporting period, several rehabilitation activities were undertaken to maintain the performance and functionality of the Stormwater System. These activities involve restoring existing infrastructure to its intended operating condition and addressing deficiencies identified through inspection programs, operational activities, or service requests.

The following projects in Table 4 represent significant repair or rehabilitation works completed during the reporting period.

*Table 4. Summary of repair and rehabilitation sites in 2025*

| Asset ID | Repair Site | Project Summary |
|---|---|---|
| T09 | Burrells Hollow Pond | Pond retrofit removing 2,550 $m^3$ of accumulated sediment and installing bottom draw outlet to reduce thermal pollution and protect the habitat of temperature sensitive species such as the Redside Dace |
| T31 | Donnelly Pond | Restoration project to remove accumulated sediment due to stormwater discharge, enhance wetland and shoreline function, improve wildlife habitat and ecological connectivity, and strengthen climate resilience and ecosystem health within the Brampton Esker |
| C44 | Drinkwater Pond | Pond remediation project to restore to original as-built conditions including restoration of the stormwater outfall overflow structure and replacement of the erosion control matting |
| T38 & T37 | Heath Pond to Simpson Pond | Pond dredging and ditch restoration project to restore the capacity and flow between the two ponds due to sediment buildup, overgrown vegetation and invasive phragmites |
| SL_50595 | Pipelining Project | Pipelining project to address a leak from a historic tap-in into a neighbouring underground parking garage |
| T58 | Upper Ridge Pond | Pond retrofit removing 500 $m^3$ of accumulated sediment and installing bottom draw outlet to reduce thermal pollution and protect the habitat of temperature sensitive species, including Redside Dace |

## 3.4. Summary of Complaints (Service Requests)

Service requests related to the Stormwater System were reviewed and categorized based on problem type using request descriptions and associated comments. These requests provide valuable information to support maintenance prioritization and identify areas requiring further inspection or operational attention. Figure 2 provides a summary of service request types responded to within the reporting period by inquiry type and a detailed listing of stormwater related service requests is provided in Appendix B.

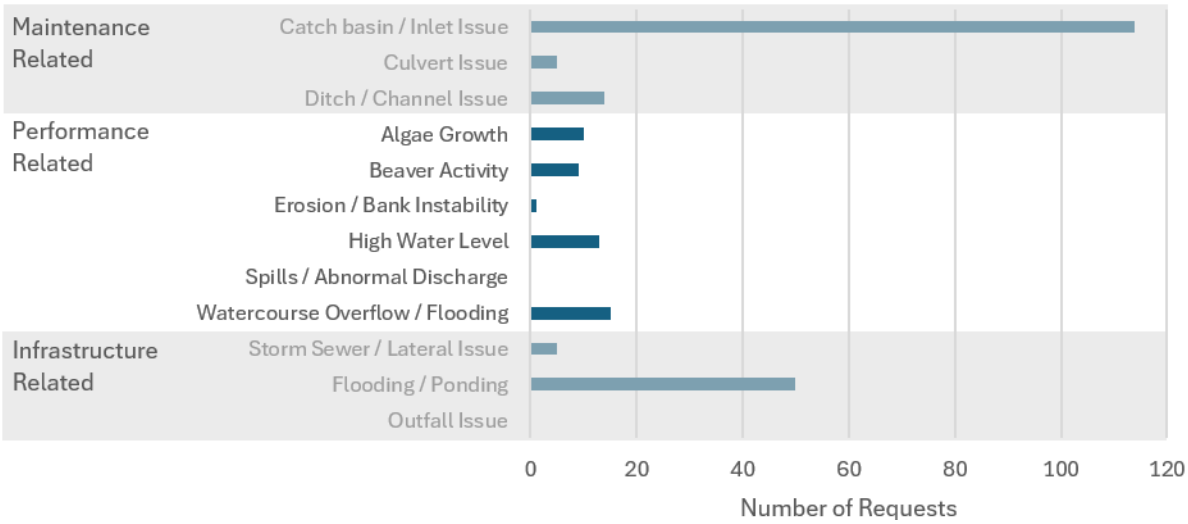


*Figure 2. Summary of Service Requests*

## 3.5. Alterations to the Authorized System

Alterations to the Authorized System include modifications, additions or extensions to existing stormwater infrastructure that result in a change to the approved Stormwater System. Such alterations may include the addition of new infrastructure, modification of existing facilities, or expansion of system capacity.

All alterations undertaken during the reporting period are summarized in Table 5. No alterations posed a Significant Drinking Water Threat.

*Table 5. Projects making alterations to the Authorized System in 2025*

| Facility Type | Project Summary | Form SW2 | Director's Notification | Date |
|---|---|---|---|---|
| Storm Sewer Pipe | Addition of a concrete storage pipe on Mill Lane of 900mm rise by 2100mm box culvert to attenuate 100-year flows; 375mm outlet pipe with a flapgate and a manhole with EF12 OGS, set of single and set of double catchbasins with Littatrap units | ☑ | ☑ | 2025/10/27 |

## 3.6. Proposed Corrective Actions

Proposed corrective actions are identified through inspection programs, operational monitoring, service requests, and findings from the City's asset management processes. These actions are intended to address infrastructure deficiencies, restore system functionality, and improve long-term performance and resilience of the Stormwater System. Depending on the nature and scale of

the issue, corrective actions may include targeted maintenance, rehabilitation works, or inclusion in the City's capital improvement program. The following initiatives in Table 6 represent corrective actions identified for future implementation pending the City's future budget and other necessary approvals.

*Table 6. Summary of proposed corrective actions for future implementation*

| Action | Estimated Construction Year* | Details |
|---|---|---|
| Storm Sewer Installation | 2027 | Flood conveyance of 100-year flows for flood mitigation of the Peachwood Place easement |
| LID Retrofit - Bioretention | 2027 | Retrofitting existing LID on County Court (Asset ID T201 & T202) with liner and piped outlet to mitigate design issues associated with prolonged ponding and insufficient outlet |
| Culvert Retrofit | 2029 | Retrofit of two existing concrete culverts at Queen St. (SL_153333) and Clark Blvd (SL_153457). and channel realignment to contain spill flows within the floodplain of the Spring Creek tributary at Bramalea City Centre |
| Culvert Retrofit | 2027 | Retrofit 600 mm culvert to address ongoing drainage issues near 2100 Embleton Road (SL_140367) |
| Culvert Retrofit | 2026 | Retrofit 600mm culvert to address drainage issues at wetland complex near 10753 Heart Lake Road (SL_154523) |
| Stormwater Pond Maintenance | 2026-2027 | Targeted maintenance/sediment cleanouts for 10 Ponds (T34, T50, T52, T72, T87, T89, T114, T115, C73, C19) |
| Stormwater Retrofits – LID Tree Trenches, OGSs and Outfall Retrofits | 2026-2028 | DBFP (Riverwalk) Project: Includes installation of 11 tree trenches and 8 OGS units to manage stormwater, and retrofitting approximately 19 storm sewer outfalls to improve function |
| Culvert Replacement | 2028 | Replacement of an existing closed bottom culvert (SL_153004) located along the future Brampton Orangeville Rail Trail (BORT), with an open bottom culvert to remove restriction of fish passage, including Redside Dace, due to existing perched elevation of culvert |
| Roadside Ditch Restoration | 2027 | Cleanout and restoration of 3,450m of existing ditches to address insufficient drainage, located on Finley Rd, portions of Hansen Road South and Hurontario Street |
| Goldcrest Park Drainage Improvement Works | 2027 | Grading works to address drainage concerns behind residential properties in northwest portion of Goldcrest Park |
| Storm Outlet Retrofit | 2027 | Install new stormwater management facility at existing Van Kirk storm outlet (OF_4646) located north of Bovaird Dr W and west of Mclaughlin Rd.N., and redirect contributing drainage to this |

| Action | Estimated Construction Year* | Details |
|---|---|---|
| | | new facility to provide stormwater quality treatment |
| Storm Outfall Rehabilitation | 2026 | Rehabilitation of 3 storm outfall sites, 2 located on Castlemore Rd (OF_4126 & OF_4125) and 1 on Kennedy Road (OF_1622), to restore function, prevent bank erosion, provide hydraulic stability, ecological benefit and mitigation of risk to infrastructure as well as alleviate issues of standing water backing up from outfalls into upstream Oil Grit Separators to restore their function |
| Watercourse Remediation | 2026-2027 | Dredging and restoration of 2,000m of watercourse, to address drainage issues, located within Evergreen Estates, Meadowview and Buldo Estates Subdivisions |
| Stormwater Ditch and Outlet Restoration | 2026 | Dredging and restoration of 300m of stormwater ditch and outlet structures between Transit Pond (T114) and Simpson Pond (T37), to remove sediment accumulation and excessive vegetation |
| Erosion Hazard Protection | 2027 | Erosion hazard protection works within Loafer's Lake Park |
| Erosion Hazard Protection | 2026-2027 | Erosion hazard protection works within Sandalwood Park |
| Roadside Ditch Restoration | 2026-2027 | Roadside ditch remediation and restoration works within Heritage Road ROW from Bovaird Dr to Embleton Rd, to address ongoing drainage and flooding issues |

*Timing subject to budget and permit approvals

### 3.7. Status of Actions for the Previous Reporting Year

This data is not applicable for the initial report as no actions have been previously reported.

# 4. Calibration and Maintenance of Monitoring Equipment

Refer to Appendix C for YSI factory calibration.

# 5. Spills Response Summary

Spill reports and abnormal discharge events are received and investigated by the Region of Peel Environmental Control Division, with support from City of Brampton staff as required. During the 2025 reporting period, a total of **214 spill of abnormal discharge reports** were received within the City of Brampton with potential impacts to the Stormwater System. Reported incidents were

assessed, investigated, and addressed in accordance with established response procedures to minimize potential impacts to the Stormwater System and receiving watercourses.

# 6. Conclusion

The 2025 reporting period on performance of the Brampton Stormwater System represents an important milestone in the implementation of the City's Asset Management Program. The City has gained valuable insight into the condition of key stormwater assets, including SWM ponds, water quality units, culverts, and outfalls through the inspection programs undertaken to date. These inspections have informed planning and implementation of our maintenance program ranging from typical pond restoration work to novel endeavours in Brampton, such as restoring outfall channel capacity so that upstream water quality units can function as intended.

As the City continues to advance its stormwater management programs, lessons learned from the initial inspection cycles will be used to strengthen maintenance planning, resource allocation, and operational workflows related to stormwater infrastructure. For example, the City is preparing to expand operational programs (i.e. routine maintenance) to avoid common issues found through recent inspections, such as recurring mowing around pond outlet structures and emergency overflow channels to control degradation due to woody vegetation. In addition, the City has begun working more closely with its call centre and operations staff to refine stormwater-related knowledge bases and improve how information is organized and tracked within the City's computerized maintenance management system (*CityWorks*). These improvements will help ensure that service requests, inspection findings, and maintenance activities are more effectively captured and managed, supporting improved coordination of stormwater operations and maintenance activities.

Looking ahead, the City will continue to expand and refine its inspection and monitoring programs, including implementation of Low Impact Development (LID) inspections, development of a ditch inspection program, and initiating the City's Stormwater Monitoring Program. These initiatives will further expand the City's understanding of system condition and support proactive asset management, helping to ensure the long-term performance, resilience, and regulatory compliance of the Stormwater System.

# Appendix A – Summary of Monitoring Data and Trends

Stormwater infrastructure is generally limited to controlling sediment loading and preventing erosive events within the receiving environment, with some buffering potential for nutrient/chloride loading. In this reporting, we included a wider range of response variables typically associated with freshwater watercourse health (TSS, Cl, conductivity, DO, pH, TP, ammonia, $NO_2$-N and $NO_3$-N). Existing monitoring locations within the City of Brampton do not allow for specific evaluation of the performance of SWM ponds and OGS units individually or evaluation of the stormwater management system as a whole. Analysis of watercourse health via water quality was applied to four watershed areas: Credit River, Etobicoke Creek and West Humber River. Water quality in watercourses within the City of Brampton was highly variable depending on the watershed. Many of the PWQO and CCME water quality guideline exceedances are likely independent of the performance of stormwater management ponds and/or OGS units. Water quality exceedances identified within the report are likely a result of a highly developed catchment area with relatively dense urbanization, reflecting that overall water quality is impaired in each subwatershed examined in this analysis.

Total Suspended Solids

Capture and retention of suspended solids is the main design goal for stormwater management facilities. Concentrations of TSS represent the primary water quality indicator for the performance of stormwater management infrastructure.

Concentrations of TSS at CVC monitoring stations were generally at or below 25 mg/L for samples collected during 2018-2024. This reflects low-turbidity watercourses but there appears to be some sediment-loading events observed, which may be indicative of natural erosion events or poor stormwater infrastructure performance. Interestingly, there was not an increasing trend from upstream to downstream for concentrations of TSS at CVC monitoring stations. Similar comparisons could not be examined in other watersheds since Mimico and West Humber do not have enough water quality monitoring stations currently in operation.

Similarly to CVC monitoring stations, concentrations of TSS at TRCA monitoring stations were generally at or below 25 mg/L for samples collected during 2018-2024. An increasing trend from upstream to downstream for concentrations of TSS at TRCA monitoring stations was not apparent. However, at the most upstream station (Mayfield) there were much less extreme concentrations of TSS compared to downstream locations likely due to less sediment-loading events. Collectively, this reflects a relatively low-turbidity watercourse that may be influenced by natural erosions events or poor stormwater infrastructure performance or lack of stormwater management controls.

Overall, no major trends in sediment loading were identified at TRCA or CVC monitoring stations that would require immediate remediation or urgent project maintenance works. Elevated concentrations of TSS were measured relative to the station median occasionally at all monitoring stations.

Chlorides

Chlorides in urban waterways are caused predominately by the application of road salts, and are not filtered readily by soil or plants (Haake and Knouft 2019). Stormwater management facilities, specifically wet ponds, can offer some buffering/dilution of peak concentrations of chloride in runoff during the colder months through dilution within the volume of the pond, but this is not the design intent of the facilities. Stormwater ponds can also detain chlorides into warmer months effectively creating a buffering effect that may cause higher chloride loading to the environment during spring/summer months where road salts are not actively applied to the contributing catchment areas (Lam et al. 2020). The best way to limit chlorides from entering watercourses is to limit their use as much as possible or use an alterative solution to winter road conditions such as sand, where possible. Measures to reducing the use of road salts and educating the public to reduce their use of de-icing salts are discussed in the Region of Peel's Salt Management Plan.

Concentrations of chlorides at CVC monitoring locations were relatively low at most sampling stations throughout the year as the CCME short-term value for protection of aquatic life was rarely exceeded. The most notable exception was during the winter months at Fletcher's Creek @ 2nd Line W and Fletcher's Creek @ Steeles monitoring stations. Elevated concentrations of chlorides were likely due to being positioned geographically lower in the subwatershed and highest amount of urbanization and development upstream. Notably, despite the elevated concentrations of chlorides at these monitoring stations during the winter, the remaining months demonstrated strong conformance with CCME short-term value for protection of aquatic life. Interestingly, Credit @ HWY 7 and Credit @ Meadowvale Conservation had the lowest measured concentrations of chlorides despite being positioned upstream and downstream in the catchment, respectively. This indicates anthropogenic stressors influencing concentrations of chlorides are not distributed equally throughout the catchment when comparing to these trends to the trends displayed along Fletcher's Creek.

Concentrations of chlorides at TRCA monitoring stations were elevated compared to CVC monitoring stations. The lowest concentrations of chlorides were measured at Mayfield while the highest concentrations of chlorides were measured at Tributary 3. The Mayfield monitoring station was the only station to not exceed the CCME short-term value for protection of aquatic life during the winter months. Interestingly, concentrations of chlorides at monitoring stations 80007 and Spring Creek were not as elevated as Tributary 3 despite being located lower in the watershed and in close proximity to Tributary 3. Similar to CVC monitoring stations, this indicates anthropogenic stressors are not distributed equally and should be prioritized by the City.

pH

Values of pH outside of the PWQO for the protection of aquatic life (6.5 – 8.5) may reduce habitat quality and cause biological impairments to freshwater biota. Stormwater management infrastructure has negligible effect on pH aside from a buffering/dilution effect of potentially acidic or alkaline inflows into the ponds similar to the interaction between chloride concentrations and stormwater management ponds. All values of pH at CVC monitoring stations were within the PWQO range except for one sample collected at Credit @ HWY 7, which was higher than 8.5. Similarly, for TRCA monitoring stations, there were no exceedances and demonstrated strong conformance with the PWQO. The local geology may exert strong control on values of pH, which may account for some higher values observed consistently at all monitoring stations.

Total Phosphorus

Although it is not always an explicit design intent, stormwater management ponds can reduce concentrations of total phosphorus in water as it moves through the facility (Nayeb Yazdi et al. 2021). Stormwater management strategies that use treatment-train approaches and maximize vegetation in the facilities (in-facility wetland cells, bioretention) can increase the efficacy of phosphorus retention within the facility. Phosphorus is the limiting nutrient to primary productivity in southern Ontario, and excess phosphorus can result in eutrophication, hypoxic conditions and potentially algae blooms in slower moving watercourses or ponds.

Most TRCA and CVC sampling locations demonstrated hyper-eutrophic concentrations of phosphorus during 2018-2024. Notably, the most upstream TRCA monitoring station at Mayfield displayed elevated concentrations of total phosphorus. In contrast to other monitoring parameters, the highest concentrations of TP were not measured at the Tributary 3 monitoring station. TP is typically driven by uncontrolled runoff from developed lands, and agricultural land uses typically represent a combination of rarely-SWM controlled areas that have high nutrient application and runoff loading. It is also important to note that there were not any stations in upper Mimico or West Humber River catchments in the City to provide comparative values for TP in Brampton's upper watershed areas.

Dissolved Oxygen

Dissolved oxygen is an essential component of freshwater ecosystems required to support fish and other aquatic biota, and the capacity for water to sustain higher concentrations of dissolved oxygen is dependent on water temperature (Harvey et al. 2011). Stormwater management ponds can have a significant impact on water temperature, as the wet ponds are typically fully exposed to the sun and effluent is skimmed historically from the top of the pond, though more modern stormwater management designs have integrated bottom-draw outlets and cooling trenches to combat the thermal impacts of stormwater management ponds.

Concentrations of DO at all monitoring stations were consistently well above the water temperature dependent PWQO for concentrations of DO. The lone exception was during the summer at Mayfield, median concentrations of DO were slightly below the cold-water threshold for DO. Low DO readings during summer months are often a result of hot, dry conditions with minimal groundwater contribution lowering the capacity for water to retain DO. Concentrations of DO across all watercourses continue to support both coldwater and warmwater fisheries.

Conductivity

Conductivity is a measure of inorganic dissolved solids in water and can be used as a proxy for the overall loading of dissolved ionic elements in water. Typical ions that contribute to conductivity levels are chloride, nitrate, sulfate, and phosphate anions, as well as sodium, magnesium, calcium, iron, and aluminum cations.

There are no CCME or PWQO guidelines for values of conductivity, which hampers comparison to a set threshold. In general, values of conductivity were highest during the winter at CVC and TRCA monitoring stations. The exception was at CVC monitoring stations Credit @ HWY 7 and Credit @ Meadowvale Conservation as values were consistent across all seasons. This is similar to the trend

observed for concentration of chlorides, which further indicates elevated values of conductivity was strongly associated with elevated concentrations of chlorides across the subwatersheds. Continued reduction of the use of road salts will further reduce values of conductivity.

Ammonia

Ammonia occurs naturally in water bodies because of the decomposition of nitrogenous compounds in organic material and is excreted by fish and other aquatic biota. Ammonia may also be discharged into surface water bodies from industrial and municipal wastewater sources. There are no CCME or PWQO for concentrations of total ammonia, which hinders the ability to compare the concentrations to a set threshold. Generally, concentrations of ammonia were consistent across each monitoring station with little season fluctuation. The lone exception was Levi Creek @ Westbridge Way. There were large seasonal differences observed at this monitoring station, which may be due to the river morphology upstream of the sampling location. Based on Google Earth, the river widens and flows through a wetland environment upstream of the sampling location. This subtle but distinct difference from other sampling locations may be altering nutrient cycling, specifically nitrogen products. There was a small increase in concentration of ammonia from upstream to downstream at TRCA monitoring stations. Similar to other nutrients, nitrogen product can be difficult to control through stormwater management infrastructure and should be controlled at the source.

Nitrite

Nitrogen is a critical nutrient for plants that cycles through many different chemical forms. Abundant in nature, it is also introduced into surface water through anthropogenic point sources including municipal and industrial wastewater, and non-point sources such as agricultural runoff (animal waste, fertilizer), septic beds, urban runoff and storm sewer overflow. Nitrite is an intermediate in the oxidation of ammonia to nitrate and can also be used as a nutrient source resulting in plant proliferation and oxygen depletion in aquatic habitats. Nitrite is directly toxic to aquatic life at relatively low concentrations. A CCME of 0.06 mg/L has been established for $NO_2$-N to protect aquatic life.

Concentrations of nitrite were well below the CCME guideline for $NO_2$-N at CVC monitoring stations except at Levi @ Westbridge Way. The elevated concentrations of nitrites are potentially due to the wetland environment upstream of the sampling station and not due to stormwater infrastructure performance. For TRCA monitoring stations, there were some individual samples that exceed occasionally the CCME guideline. Notably, there is an increasing trend from Mayfield to Tributary 3 that likely reflects anthropogenic inputs from non-point sources. It appears unlikely stormwater overflow would be responsible for elevated concentrations of nitrites.

Nitrates

Nitrate is the most oxidized and stable form of nitrogen in surface water. It is also the main form of nitrogen used by plants. Similar to phosphorus, high concentrations of nitrate can result in excessive macrophyte and plankton growth, depriving fish and other aquatic biota of oxygen. To protect aquatic life, surface water concentrations of $NO_3$-N should remain below 3.0 mg/L for long term exposure (CCME 2012). Consistent with concentrations of ammonia and nitrites, the only CVC

monitoring station with elevated concentrations of nitrate was Levi @ Westbridge Way. The change from flowing water to standing or still water is potentially a reason for elevated concentrations of nitrogen products at Levi @ Westbridge Way. There was no increase trend from upstream to downstream at CVC monitoring locations. Notably, for TRCA monitoring stations there a decreasing trend for concentrations of nitrates from upstream to downstream. Collectively, nitrogen products and phosphorus appear to be influenced strongly by non-point sources across the catchment.

# Appendix B – Summary of Completed Service Requests

## Completed Service Requests, 2025

| Internal Reference # | Request Date | Problem Type | General Solution |
|---|---|---|---|
| 86434 | 2023/07/10 | Flooding / Ponding | Investigated drainage conditions |
| 99448 | 2023/10/25 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 104773 | 2024/01/10 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 134195 | 2024/09/12 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 135335 | 2024/09/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 139546 | 2024/10/31 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 141445 | 2024/11/26 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 143195 | 2024/12/18 | Flooding / Ponding | Investigated drainage conditions |
| 145342 | 2025/01/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 145557 | 2025/01/22 | Storm Sewer / Lateral Issue | Storm sewer or lateral repaired/cleared |
| 145609 | 2025/01/23 | Flooding / Ponding | Investigated drainage conditions |
| 149672 | 2025/02/17 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 151974 | 2025/02/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152023 | 2025/02/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152273 | 2025/02/24 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152314 | 2025/02/24 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152396 | 2025/02/24 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152471 | 2025/02/24 | Flooding / Ponding | Investigated drainage conditions |
| 152545 | 2025/02/25 | Flooding / Ponding | Investigated drainage conditions |
| 152554 | 2025/02/25 | Flooding / Ponding | Investigated drainage conditions |
| 152582 | 2025/02/25 | Flooding / Ponding | Investigated drainage conditions |
| 152589 | 2025/02/25 | Flooding / Ponding | Investigated drainage conditions |
| 152593 | 2025/02/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152518 | 2025/02/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152529 | 2025/02/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152609 | 2025/02/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152834 | 2025/02/26 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 152842 | 2025/02/26 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 153096 | 2025/02/28 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 153481 | 2025/03/03 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 153502 | 2025/03/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 153524 | 2025/03/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 153646 | 2025/03/05 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |

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|---|---|---|---|
| 153816 | 2025/03/06 | Flooding / Ponding | Investigated drainage conditions |
| 153978 | 2025/03/07 | Flooding / Ponding | Investigated drainage conditions |
| 153994 | 2025/03/07 | Flooding / Ponding | Investigated drainage conditions |
| 154228 | 2025/03/11 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 154310 | 2025/03/11 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 154675 | 2025/03/14 | Ditch / Channel Issue | Ditch/channel cleared or regraded, Culvert cleared or repaired |
| 154789 | 2025/03/15 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 154896 | 2025/03/16 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 155104 | 2025/03/18 | Culvert Issue | Culvert cleared or repaired |
| 155506 | 2025/03/20 | Watercourse Overflow / Flooding | Beaver Management (Dam Removal / Baffler) |
| 155616 | 2025/03/21 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 156773 | 2025/04/02 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 156826 | 2025/04/02 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156851 | 2025/04/03 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 156878 | 2025/04/03 | Flooding / Ponding | Investigated drainage conditions |
| 156863 | 2025/04/03 | High Water Level | Inspection Completed / No Action Required |
| 156893 | 2025/04/03 | Watercourse Overflow / Flooding | Debris Removal / Clearing |
| 156926 | 2025/04/03 | Watercourse Overflow / Flooding | Inspection Completed / No Action Required |
| 156968 | 2025/04/03 | Watercourse Overflow / Flooding | Monitoring Ongoing |
| 157029 | 2025/04/03 | Watercourse Overflow / Flooding | Debris Removal / Clearing |
| 157034 | 2025/04/03 | High Water Level | Inspection Completed / Consultant Notified |
| 156847 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156854 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156856 | 2025/04/03 | Flooding / Ponding | Investigated drainage conditions |
| 156857 | 2025/04/03 | Flooding / Ponding | Investigated drainage conditions |
| 156861 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156866 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156882 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156895 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156898 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156903 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156908 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156925 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 156946 | 2025/04/03 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 157089 | 2025/04/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 157165 | 2025/04/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 157183 | 2025/04/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 157185 | 2025/04/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 157119 | 2025/04/04 | High Water Level | Inspection Completed / No Action Required |
| 157157 | 2025/04/04 | Beaver Activity | Debris Removal / Clearing |

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|---|---|---|---|---|
| | 157177 | 2025/04/04 | Watercourse Overflow / Flooding | Inspection Completed / No Action Required |
| | 157236 | 2025/04/05 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 157243 | 2025/04/05 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 157253 | 2025/04/05 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 157278 | 2025/04/06 | Flooding / Ponding | Investigated drainage conditions |
| | 157308 | 2025/04/06 | Flooding / Ponding | Investigated drainage conditions |
| | 157522 | 2025/04/08 | Flooding / Ponding | Investigated drainage conditions |
| | 157543 | 2025/04/08 | Storm Sewer / Lateral Issue | Storm sewer or lateral repaired/cleared |
| | 157585 | 2025/04/08 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 157515 | 2025/04/08 | Flooding / Ponding | Investigated drainage conditions |
| | 157682 | 2025/04/09 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 158389 | 2025/04/15 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 158484 | 2025/04/16 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 158487 | 2025/04/16 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 158817 | 2025/04/19 | Watercourse Overflow / Flooding | Debris Removal / Clearing |
| | 158907 | 2025/04/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 159165 | 2025/04/22 | Watercourse Overflow / Flooding | Monitoring Ongoing |
| | 159171 | 2025/04/22 | Beaver Activity | Inspection Completed / No Action Required |
| | 159238 | 2025/04/23 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 159265 | 2025/04/23 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 159273 | 2025/04/23 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 159838 | 2025/04/26 | Culvert Issue | Culvert cleared or repaired |
| | 160273 | 2025/04/29 | Erosion / Bank Instability | Inspection Completed / No Action Required |
| | 160547 | 2025/04/30 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 160633 | 2025/04/30 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 160670 | 2025/04/30 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 160775 | 2025/05/01 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 160835 | 2025/05/01 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 160858 | 2025/05/02 | Culvert Issue | Culvert cleared or repaired |
| | 161055 | 2025/05/03 | Watercourse Overflow / Flooding | Monitoring Ongoing |
| | 161125 | 2025/05/04 | High Water Level | Debris Removal / Clearing |
| | 161235 | 2025/05/05 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 161717 | 2025/05/07 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| | 161597 | 2025/05/07 | Beaver Activity | Beaver Management (Dam Removal / Baffler) |
| | 161985 | 2025/05/09 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 162052 | 2025/05/09 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 162168 | 2025/05/11 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| | 162278 | 2025/05/12 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 162308 | 2025/05/12 | Watercourse Overflow / Flooding | Debris Removal / Clearing |
| | 162460 | 2025/05/13 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| | 162518 | 2025/05/13 | Ditch / Channel Issue | Ditch/channel cleared or regraded |

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|---|---|---|---|
| 163206 | 2025/05/17 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 163234 | 2025/05/17 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 163343 | 2025/05/19 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 163390 | 2025/05/19 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 163619 | 2025/05/20 | Flooding / Ponding | Investigated drainage conditions |
| 163736 | 2025/05/21 | Flooding / Ponding | Investigated drainage conditions |
| 163800 | 2025/05/21 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 163889 | 2025/05/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 163969 | 2025/05/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 163940 | 2025/05/22 | Watercourse Overflow / Flooding | Inspection Completed / No Action Required |
| 164051 | 2025/05/23 | Culvert Issue | Culvert cleared or repaired |
| 164306 | 2025/05/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 164331 | 2025/05/25 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 164613 | 2025/05/26 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 164677 | 2025/05/27 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 164806 | 2025/05/27 | Flooding / Ponding | Investigated drainage conditions |
| 164901 | 2025/05/28 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 164914 | 2025/05/28 | Beaver Activity | Beaver Management (Dam Removal / Baffler) |
| 165221 | 2025/05/29 | Flooding / Ponding | Investigated drainage conditions |
| 165242 | 2025/05/29 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 165260 | 2025/05/29 | Flooding / Ponding | Investigated drainage conditions |
| 166147 | 2025/06/03 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 166501 | 2025/06/05 | Flooding / Ponding | Investigated drainage conditions |
| 167133 | 2025/06/09 | Algae Growth | Inspection Completed / No Action Required |
| 167693 | 2025/06/12 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 168174 | 2025/06/16 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 168256 | 2025/06/16 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 168815 | 2025/06/18 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 168828 | 2025/06/18 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 168753 | 2025/06/18 | Algae Growth | Inspection Completed / No Action Required |
| 168785 | 2025/06/18 | High Water Level | Debris Removal / Clearing |
| 168793 | 2025/06/18 | Watercourse Overflow / Flooding | Beaver Management (Dam Removal / Baffler) |
| 168801 | 2025/06/18 | Flooding / Ponding | Catch basin and lateral flushed |
| 168813 | 2025/06/18 | Flooding / Ponding | Investigated drainage conditions |
| 168936 | 2025/06/19 | Storm Sewer / Lateral Issue | Storm sewer or lateral repaired/cleared |
| 169010 | 2025/06/19 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 169227 | 2025/06/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 169578 | 2025/06/23 | Outfall / Headwall Issue | Outfall/headwall inspected or repaired |
| 169901 | 2025/06/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 169965 | 2025/06/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 170387 | 2025/06/27 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |

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|---|---|---|---|
| 170898 | 2025/07/02 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 171246 | 2025/07/03 | High Water Level | Inspection Completed / No Action Required |
| 171344 | 2025/07/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 171350 | 2025/07/04 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 171636 | 2025/07/07 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 171921 | 2025/07/08 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 172175 | 2025/07/09 | Beaver Activity | Debris Removal / Clearing |
| 172608 | 2025/07/10 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 172590 | 2025/07/10 | High Water Level | Inspection Completed / No Action Required |
| 172959 | 2025/07/13 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 173329 | 2025/07/15 | High Water Level | Debris Removal / Clearing |
| 173385 | 2025/07/15 | Algae Growth | Inspection Completed / No Action Required |
| 173788 | 2025/07/17 | Algae Growth | Inspection Completed / No Action Required |
| 174164 | 2025/07/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 174191 | 2025/07/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 174192 | 2025/07/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 174244 | 2025/07/21 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 174717 | 2025/07/23 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 174877 | 2025/07/24 | High Water Level | Inspection Completed / No Action Required |
| 175447 | 2025/07/28 | Algae Growth | Inspection Completed / No Action Required |
| 175919 | 2025/07/31 | Watercourse Overflow / Flooding | Monitoring Ongoing |
| 176165 | 2025/08/01 | High Water Level | Inspection Completed / No Action Required |
| 176350 | 2025/08/03 | Storm Sewer / Lateral Issue | Storm sewer or lateral repaired/cleared |
| 176394 | 2025/08/03 | Algae Growth | Monitoring Ongoing |
| 176691 | 2025/08/05 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 176593 | 2025/08/05 | High Water Level | Inspection Completed / No Action Required |
| 177154 | 2025/08/08 | High Water Level | Beaver Management (Dam Removal / Baffler) |
| 177465 | 2025/08/11 | Ditch / Channel Issue | Ditch/channel cleared or regraded |
| 177814 | 2025/08/12 | Algae Growth | Inspection Completed / No Action Required |
| 177877 | 2025/08/13 | Storm Sewer / Lateral Issue | Storm sewer or lateral repaired/cleared |
| 178147 | 2025/08/14 | Algae Growth | Inspection Completed / No Action Required |
| 178984 | 2025/08/20 | Flooding / Ponding | Investigated drainage conditions |
| 179651 | 2025/08/25 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 180833 | 2025/09/02 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 181809 | 2025/09/09 | Beaver Activity | Debris Removal / Clearing |
| 182214 | 2025/09/11 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 182280 | 2025/09/11 | Watercourse Overflow / Flooding | Flushing / Cleaning / Buried Outfall Restored |
| 182489 | 2025/09/12 | Algae Growth | Debris Removal / Clearing |
| 183094 | 2025/09/17 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 183497 | 2025/09/19 | Watercourse Overflow / Flooding | Beaver Management (Dam Removal / Baffler) |
| 183783 | 2025/09/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |

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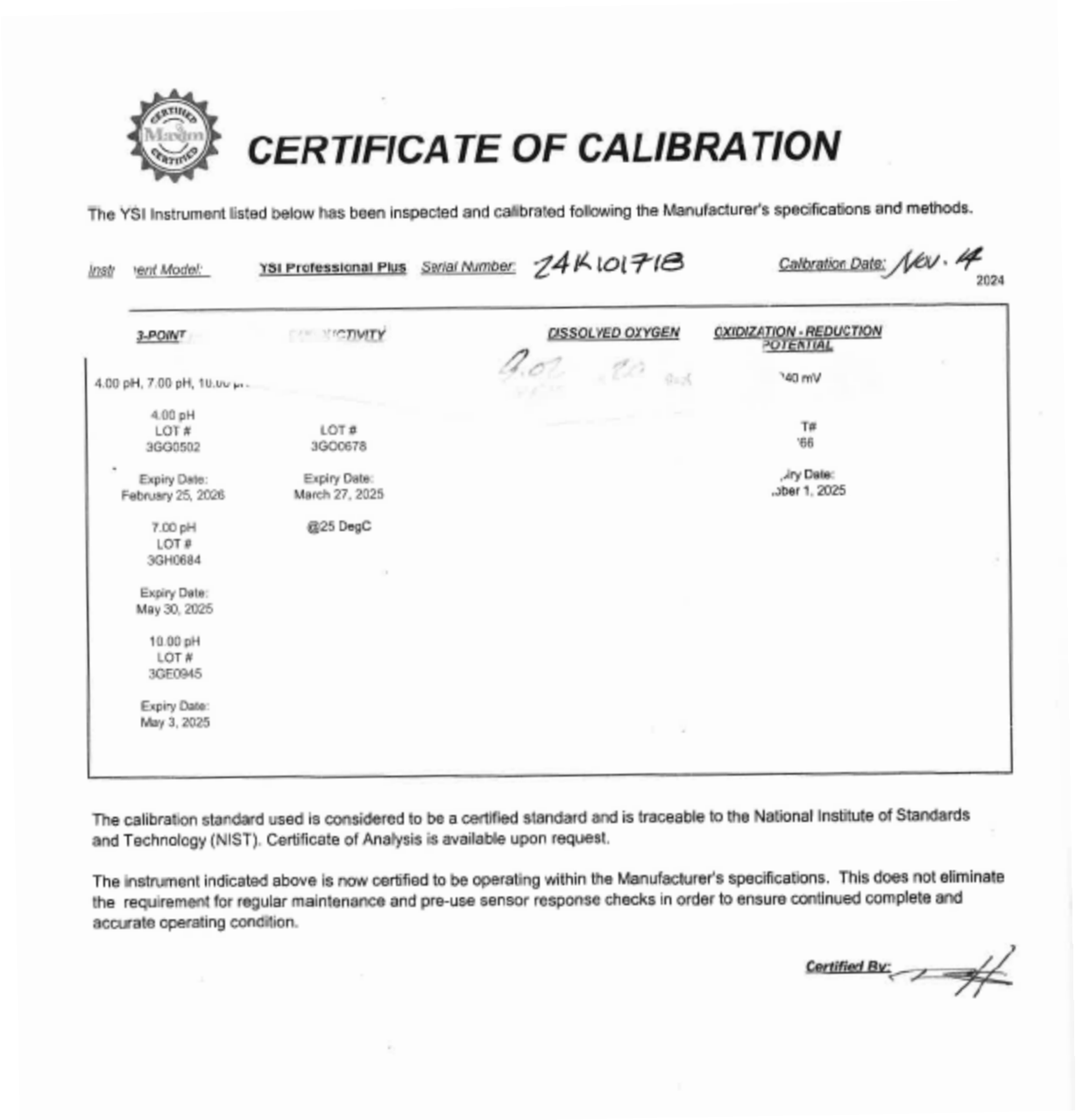
|---|---|---|---|
| 183792 | 2025/09/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 183814 | 2025/09/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 183794 | 2025/09/22 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 183797 | 2025/09/22 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 183842 | 2025/09/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 183947 | 2025/09/23 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 184078 | 2025/09/23 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 184081 | 2025/09/23 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 184171 | 2025/09/24 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 184210 | 2025/09/24 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 184571 | 2025/09/27 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 184902 | 2025/09/30 | Flooding / Ponding | Investigated drainage conditions |
| 184949 | 2025/09/30 | Algae Growth | Inspection Completed / No Action Required |
| 185305 | 2025/10/03 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 185319 | 2025/10/03 | Culvert Issue | Culvert cleared or repaired |
| 185308 | 2025/10/03 | Beaver Activity | Debris Removal / Clearing |
| 185992 | 2025/10/08 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 186314 | 2025/10/11 | Flooding / Ponding | Catch basin/inlet cleaned or repaired |
| 187302 | 2025/10/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 187405 | 2025/10/23 | Flooding / Ponding | Investigated drainage conditions |
| 187373 | 2025/10/23 | High Water Level | Inspection Completed / No Action Required |
| 188015 | 2025/10/30 | Beaver Activity | Beaver Management (Dam Removal / Baffler) |
| 188713 | 2025/11/07 | Flooding / Ponding | Investigated drainage conditions |
| 188920 | 2025/11/10 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189213 | 2025/11/14 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189322 | 2025/11/15 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189333 | 2025/11/15 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189335 | 2025/11/15 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189457 | 2025/11/17 | Beaver Activity | Beaver Management (Dam Removal / Baffler) |
| 189565 | 2025/11/18 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189586 | 2025/11/18 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189756 | 2025/11/20 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 189982 | 2025/11/22 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 190142 | 2025/11/24 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 190447 | 2025/11/27 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 190494 | 2025/11/27 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 191037 | 2025/12/04 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 191225 | 2025/12/07 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 191425 | 2025/12/09 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 192702 | 2025/12/17 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |
| 193678 | 2025/12/27 | Catch Basin / Inlet Issue | Catch basin/inlet cleaned or repaired |

# Appendix C – YSI Factory Calibration



## CERTIFICATE OF CALIBRATION

The YSI Instrument listed below has been inspected and calibrated following the Manufacturer's specifications and methods.

Instrument Model: **YSI Professional Plus** Serial Number: 24K101718 Calibration Date: Nov. 4 2024

| 3-POINT | CONDUCTIVITY | DISSOLVED OXYGEN | OXIDIZATION - REDUCTION POTENTIAL |
|---|---|---|---|
| 4.00 pH, 7.00 pH, 10.00 pH | | | 240 mV |
| 4.00 pH<br>LOT #<br>3GG0502 | LOT #<br>3GC0678 | | T#<br>'66 |
| Expiry Date:<br>February 25, 2026 | Expiry Date:<br>March 27, 2025 | | Expiry Date:<br>October 1, 2025 |
| 7.00 pH<br>LOT #<br>3GH0684 | @25 DegC | | |
| Expiry Date:<br>May 30, 2025 | | | |
| 10.00 pH<br>LOT #<br>3GE0945 | | | |
| Expiry Date:<br>May 3, 2025 | | | |

The calibration standard used is considered to be a certified standard and is traceable to the National Institute of Standards and Technology (NIST). Certificate of Analysis is available upon request.

The instrument indicated above is now certified to be operating within the Manufacturer's specifications. This does not eliminate the requirement for regular maintenance and pre-use sensor response checks in order to ensure continued complete and accurate operating condition.

Certified By: