

2024 ANNUAL REPORT

APDES Permit No. AKS-052558

Submitted by:
Municipality of Anchorage



Alaska Department of Transportation and Public Facilities



Prepared for:
Alaska Department of Environmental Conservation

Prepared by:
Watershed Management Services
Project Management and Engineering Department
Municipality of Anchorage



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Acronyms

ACGP	Alaska Construction General Permit
ADEC	Alaska Department of Environmental Conservation
ADNR	Alaska Department of Natural Resources
AK-CESL	Certified Erosion and Sediment Control Lead
AMC	Anchorage Municipal Code
APDES	Alaska Pollutant Discharge Elimination System
ARDSA	Anchorage Road and Drainage Service Area
AWC	Anchorage Waterways Council
BMP	Best Management Practice
CBERRRSA	Chugiak Birchwood Eagle River Rural Road Service Area
CGP	Construction General Permit
CO	Certificate of Occupancy
CR	DOT&PF Central Region
DCM	Design Criteria Manual
D&ES	DOT&PF Statewide Design & Engineering Services
DOT&PF	Alaska Department of Transportation and Public Facilities
EPA	Environmental Protection Agency
ESCP	Erosion Sediment Control Plan
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
GIS	Geographic Information System
GPS	Global Positioning System
GRSA	Girdwood Road Service Area
HMCP	Hazardous Material Control Plan
HGDB	Hydrogeodatabase
IPM	DOT&PF Integrated Pest Management Plan
LID	Low Impact Development
M&O	DOT&PF Central Region Division Maintenance and Operation
MASS	Municipality of Anchorage Standard Specifications
MEP	Maximum Extent Practicable
MOA	Municipality of Anchorage

MS4	Municipal Separate Storm Sewer System
MS4GDB	MS4 Geodatabase
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OGS	Oil and Grit or Oil and Grease Separator
PS&E	Plans, Specification, and Estimate
QA	Quality Assurance
QAP	Quality Assurance Plan
ROW	Municipal Rights of Way
SEO	DOT&PF Statewide Environmental Office
SOP	Standard Operating Procedures
SPCC	Spill Prevention, Control, and Countermeasure
SSAC	DOT&PF Standard Specification for Airport Construction
SSHC	DOT&PF Standard Specification for Highway Construction
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWTPRGM	Storm Water Treatment Plan Review Guidance Manual
TMDL	Total Maximum Daily Loads
WMS	Watershed Management Services

Introduction

The Municipality of Anchorage (MOA) and the State of Alaska Department of Transportation and Public Facilities (DOT&PF) submit this report in fulfillment of the annual reporting requirements of Alaska Pollutant Discharge Elimination System (APDES) Permit No. AKS052558, “*Authorization to Discharge Under the National Pollutant Discharge Elimination System*” (Permit), effective date August 1, 2020. This report satisfies the criteria outlined in Permit Section 4.4 and is organized by program to demonstrate compliance with the *Storm Water Management Plan* developed to meet the requirements in Permit Section 2. Documents produced in compliance with this report are included in associated Appendices A through H.

The permittees’ responsibilities are both joint and individual; they are laid out in their Inter-jurisdictional Agreement which describes their respective roles and responsibilities related to this Permit. Coordination between groups within the permittees’ organizations is laid out in their Program Coordination Plans.

Responsibilities for specific requirements have been shared with the Anchorage Waterways Council (AWC). The delegated activities are in Public Education for General Audiences, located in Permit Part 3.6, and Program Evaluation of Animal Facilities, located in Part 3.3.3.

1. Program Organization

1.1 Storm Water Management Plan

The actions and activities of the Anchorage Municipal Separate Storm Sewer System (MS4) program have been documented in its Storm Water Management Plan (SWMP). The SWMP is intended to reduce the discharge of pollutants from the MS4 into receiving waters to the maximum extent practicable (MEP). The permittees have identified the prescribed best management practices (BMP), including control measures, system design, engineering methods, and other provisions appropriate to controlling and minimizing pollutants and addressing the Permit requirements described in Sections 3 and 4 of the Permit.

The annual report documents the compliance measures taken during the year in fulfillment of the SWMP. Both documents are consistent with Sections 3 and 4 of the Permit. Activities are identified in the appropriate program summaries along with results of information collected, summaries of activities, appendix references, and web links to associated supporting materials. Also, in each program section are self-assessments of performance and summaries of planned activities for future reporting cycles.

The SWMP was updated for the fourth permit term and provided in the 2020 Annual Report. It was reviewed and updated in 2024 for consistency with progress in compliance activities. The updated plan is provided in Appendix A1.

1.2 Program Effectiveness

The February reporting date for the 2024 Annual Report falls mid-way through the fifth year of the permit, running from August 1, 2024 through July 31, 2025. The annual report presents the work the Permittees accomplished during the calendar year.

Each of the monitoring program reports presented with this submittal provides a detailed description of the results from the current monitoring year. These reports indicate what follow-up actions are shown from the program findings.

The Quality Assurance Plan (QAP) was updated in the first year of the Permit term to reflect changes in program activities.

Pollutant load allocations, in the form of total maximum daily loads (TMDL), are assigned by the state to several creeks and lakes in Anchorage based on the State's *Primary Use* designation as drinking water sources. Dry and wet weather screening provided indicators of bacterial impacts from stormwater to the identified receiving systems. Wet weather bacteria continue to be occasionally high at some outfalls. To address the sources of most bacteria, the permittees are continuing to provide public education about pet waste management with the 'Scoop the Poop' message. They are also continuing to participate in efforts to manage waterfowl population impacts.

Dry weather screening identified one outfall with test levels requiring further investigation for fecal coliform and detergents. Investigators performed sampling on multiple days throughout the drainage area connected with the outfall and determined the two pollutants were not from one source but rather two or more unrelated sources. The detergents appeared to be the result of vehicle washing outside of designated wash bays. Municipal Watershed Management Services (WMS) notified the commercial businesses that could cause the problem in July 2024 and educated them about the impact of soap on the receiving system. Detergents were not detected in the 2024 sampling; therefore, the letters are believed to be useful for awareness to help mitigate detergent contamination. The fecal coliform was not traced to a single source; it appeared to be related to non-point sources and potential homeless activities in the area. Both pollutants will be monitored next year for additional follow-up needs.

Street sweeping assessment activities were continued annually to assist with improving sweeping operations. The real-time assessment provides qualitative feedback to help operators adjust practices for the development of a visually clean standard.

The operations of the storm sewer system were implemented by primary coordinating groups. Coordination is managed through agreements between WMS and each of the participating MS4 operators; these plans were updated as operations changed and for the new permit term. The DOT&PF Central Region Maintenance and Operation (M&O) staff have provided 2024 MS4 Summaries for their areas of permit compliance. They are provided in Appendix A2.

1.3 Program Resources

The permittees have broken their program costs into two functional categories: Maintenance & Operations and Program Management/Project Administration. The maintenance costs are summarized from the program breakdowns contained in the MS4 Summaries. The 2024 costs from DOT&PF, Anchorage Road and Drainage Service Area (ARDSA), Chugiak Birchwood Rural Road Service Area (CBRRSA), and Girdwood Road Service Area (GRSA) are presented in Table 1.

Table 1 – 2024 SWMP Program Costs

	DOT&PF	ARDSA	CBERRSA	GRSA	Total
Maintenance & Operations	\$3.4M	\$2.18M	\$0.74M	\$0.067M	\$6.4M
Program Management/ Administration	\$0.4M	\$0.78M	-	-	\$1.18M
Total	\$3.8M	\$2.96M	\$0.74M	\$0.067M	\$7.6M

1.4 Watershed Planning

The permittees have two existing watershed plans. The *Little Campbell Creek Watershed Plan* and the *Chester Creek Watershed Plan* were developed under the guidance of working groups composed of diverse agency interests and supported by staff from WMS, the U.S. Fish and Wildlife Service, and the Anchorage Waterways Council.

In the third term, the permittees completed a scoping document for a Campbell Creek watershed plan. The scoping document identified whether activities in the watershed are beneficial in accomplishing site-based low-impact development (LID) practices and recommended future actions to obtain identified goals. The scoping document identified Campbell Creek for developing a watershed plan, which is currently under development.

Prior to the end of the permit term, a scoping document will be completed considering the benefits of existing watershed plans toward accomplishing site-based LID practices. It will also identify and guide the direction for additional watershed plans.

2. Construction Site Management

2.1 Regulatory Mechanisms and Standards

DOT&PF Projects: The DOT&PF Statewide Design & Engineering Services' (D&ES) mission is to provide technical services to DOT&PF and other state and federal agencies. They develop, publish, and manage standard construction contract specifications, standard modifications for highways, and statewide special provisions for highways and airports, as well as coordinate with and advise others in the development and use of specifications for buildings, marine highways, and harbors. The DOT&PF Chief Engineer issues directives informing DOT&PF staff of new specifications, manuals, and other standards to administer DOT&PF projects.

In 2024, the DOT&PF Chief Engineer issued one stormwater-related directive to the DOT&PF regions incorporating revisions to the Alaska Standard Plans Manual, HSM20-47 and HSM20-48.

- February 28, 2024, Chief Engineers Directive: The 2024 Alaska Environmental Procedures Manual is adopted effective March 1, 2024. This Manual update incorporates changes to federal regulations and provides updated guidance on environmental procedures. The Directive can be found at:

https://dot.alaska.gov/stwddes/dcspubs/assets/pdf/directives/24/022824_epm.pdf

The current addition of the 2024 Alaska Environmental Procedures Manual can be found at:

<https://dot.alaska.gov/stwddes/desenviron/resources/enviromanual.shtml>

2.1.1 Ordinance and/or Regulatory Mechanism

DOT&PF Projects: The DOT&PF regulates storm water management of their highway, aviation, and public facility construction projects through its Statewide and Regional Standard Specifications:

- Section 641 Erosion, Sediment and Pollution Control for Highway Construction
- Item P-641 Erosion, Sediment and Pollution Control for Airport Construction
- Section 01 57 10 Erosion, Sediment, and Pollution Control for Statewide Public Facilities Construction

DOT&PF reviews and may update these standard specifications every two years; they are part of the biennial statewide standard specification re-publication. Regional special specification modifications are developed on a project-specific basis. DOT&PF reviews the DOT&PF SWPPP construction forms each year and updates and/or modifies individual forms, as necessary.

In 2021, these Erosion, Sediment, and Pollution Control specifications were revised to reflect the regulatory changes brought forth by the Alaska Department of Environmental Conservation (ADEC) reissuing the Alaska Construction General Permit (ACGP) in 2021.

- The final version of the 641 Specification for Highway Construction was accepted by the Federal Highway Administration (FHWA) and made ready for use by the September 27, 2021, Chief Engineer's Directive.
- The final version of the P-641 Specification for Airport Construction was accepted by the FAA and made ready for use by the December 22, 2021, Chief Engineer's Directive.
- The final version of the 01 57 10 Specification for DOT&PF Public Facility Construction was accepted and made ready for use on November 15, 2021.

In 2022, the Erosion, Sediment, and Pollution Control specifications were revised to allow the use of SWPPPTrack for SWPPP documentation.

- The 641 Specification for Highway Construction was made ready for use by the February 10, 2022 Chief Engineer Directive HSP20-5.
- The P-641 Specification for Aviation Construction was made ready for use by the March 9, 2022 Chief Engineer Directive ASP-9.

In 2023, DOT&PF:

- Issued the April 18, 2023 Chief Engineer Directive HSP20-5A to replace the February 10, 2022 Chief Engineer Directive HSP20-5 and revised the SWPPPTrack special provisions in their 641 Specification for Highway Construction.
- Issued the April 18, 2023 Chief Engineer Directive ASP-9A to replace the February 9, 2022 Chief Engineer Directive ASP-9 and revised the SWPPPTrack special provisions in their P-641 Specification for Aviation Construction.
- Updated the Liquidated Damage Table in their 641 Specification for Highway Construction, P-641 Specification for Airport Construction, and 01 57 10 Specification for DOT&PF Public Facility Construction.
- Updated the Erosion, Sediment Control Liquidated Damages Table in their standard construction forms 25D-146H (for Highway projects), 25D-146F (for Statewide Public Facilities projects), and 25D-146A (for Aviation projects).

In 2024, DOT&PF did not revise the Standard Specification Section 641, Item P-641, and Section 01 57 10.

The Standard Specification Section 641, Item P-641, Section 01 57 10, and the DOT&PF SWPPP construction forms are construction contract requirements used to document permit compliance. DOT&PF personnel enforce the storm water specifications on each construction project.

DOT&PF Central Region Construction provides guidance on contract stormwater administration to its project staff through three mechanisms:

- The Alaska Construction Manual, Chapter 3.11, 9.9, 9.10 and 9.17;
- DOT&PF Chief Engineer's directives; and
- Having storm water specialists dedicated solely to storm water guidance and education.

These three mechanisms are required to be used on all DOT&PF highway, aviation, and public facility construction projects; they outline the procedures for implementing and monitoring construction SWPPPs.

The latest edition of the Alaska Construction Manual became effective on March 10, 2023. Minor modifications concerning stormwater were made to the Alaska Construction Manual in February of 2021 in sections 3.11 and 9.9. The Alaska Construction Manual link is:

https://dot.alaska.gov/stwddes/dcsconst/assets/pdf/constman/2023/acm_all.pdf

Highway Standard Modification for Section 641 for Highways Erosion, Sedimentation, and Pollution Control (identified as Special Provision HSP20-5A) link is:

https://dot.alaska.gov/stwddes/dcspubs/assets/pdf/directives/attach/23/041823_hsp20_5a.pdf

Aviation Standard Specification for Section P-641 for Airports Erosion, Sedimentation, and Pollution Control (identified as Statewide Airport Special Provision ASP-9A) link is:

https://dot.alaska.gov/stwddes/dcspubs/assets/pdf/directives/attach/23/041823_asp_9a.pdf

Links for Section 01 57 10 for Public Facility Construction are not currently available.

DOT&PF Construction SWPPP Forms link is:

<https://dot.alaska.gov/stwddes/dcsconst/index.shtml> (under the Forms heading, Construction Forms bullet)

DOT&PF Chief Engineer's Directives link is:

<https://dot.alaska.gov/stwddes/dcspubs/directives.shtml>

Private Development: The MOA regulates stormwater management at private construction sites through Anchorage Municipal Code (AMC) Title 21. It can be found in AMC 21.07.04.E. This code is available at:

https://www.municode.com/library/ak/anchorage/codes/code_of_ordinances?nodeId=TIT21LAUSPLNECOFFJA12014_CH21.07DEDESTNECOFFJA12014_21.07.040DRSTWATRERCOPRDI

Municipal Projects: The MOA regulates stormwater management during the construction of its own (public) projects through Municipality of Anchorage Standard Specifications (MASS), Division 20 (MASS Section 20.02). These standard specifications are periodically updated and contractually enforced. A link to the MASS is found at:

https://www.muni.org/Departments/project_management/Pages/MASS.aspx

2.1.2 Construction Storm Water Manual

DOT&PF Projects: Use of the SWPPP Guide and other related materials is directed by the DOT&PF Chief Engineer. These materials are available for download on a dedicated Storm Water and Water Quality webpage managed and maintained by the DOT&PF Statewide Environmental Office (SEO).

DOT&PF revised its SWPPP Guide in March of 2021 to reflect changes made in the 2021 Alaska Construction General Permit. The SWPPP Guide, 2017 Edition was made an official reference document and authorized for use on March 31, 2017, after receiving approval from the FHWA and FAA.

DOT&PF Statewide Environmental Office Storm Water and Water Quality Website link is:

<https://dot.alaska.gov/stwddes/desenviron/resources/stormwater.shtml>

The Alaska SWPPP Guide, 2021 Edition (entire guide with appendices) link is:

<https://dot.alaska.gov/stwddes/desenviron/resources/stormwater.shtml> (under the Construction Storm Water Resources heading, Storm Water Pollution Prevention Guide (SWPPP) Guide bullet)

Private and Municipal Projects: The MOA updated its Storm Water Plan Review and Treatment Guidance Manual (SWTPRGM) in 2017 to reflect the current regulatory program based on the APDES permit and the current ACGP. A document review during the fourth term combined with regular use and community feedback demonstrates it continues to be aligned with current regulations and did not require further updating. It is incorporated as Volume 2 of the Anchorage Stormwater Manual recently adopted by the Anchorage Assembly. It is available at:

https://anchoragewatershed.com/Documents/DCM/ASM_Volume2_Final_December2017.pdf

2.2 Plan Review and Approval

DOT&PF Projects: Sometimes, DOT&PF takes two or more projects and combines them into a single Construction Contract. DOT&PF normally files one Notice of Intent (NOI) per Construction Contract unless the projects are disconnected from each other and have vastly different site conditions/SWPPP requirements. DOT&PF will report on the number of active or carryover Construction Contracts or NOIs filed with the ADEC. These DOT&PF contracts/NOIs are hereafter known as projects in this report.

Below is a list of DOT&PF Construction Contracts/NOIs that have multiple projects:

DOT&PF 2024 Construction Contracts with Multiple Projects and one NOI:

- 1 Project No. CFHWY00213 – Seward Highway: Road and Bridge Rehabilitation – Phase II, and CFHWY00308 Portage Curve Multimodal Connector (Carry over)
- 2 Project No. CFHWY00132 – Minnesota Dr: Tudor to 15th Ave. Pavement Preservation, and Project No. CFHWY00366 – HSIP: Anchorage Pedestrian Lighting, Ph II (Carry over)
- 3 Project No. CFHWY00731 – AMATS: Eagle River Loop Rd – Eagle River Rd to Old Glen Highway Pavement Preservation, and CFHWY00621 – North Eagle River Access Pavement Preservation (New Project)

Eight (8) projects (i.e., Construction Contracts) were carried over from the 2023 construction season in the Municipality of Anchorage MS4 permit area. During 2024, DOT&PF reviewed and approved SWPPPs for five (5) projects eligible to discharge construction stormwater under the requirements of the 2021 ACGP within the MS4 permit area. All five projects filed for and received an NOI. All 13 projects were contracted and administered by DOT&PF. A list of these 13 projects is provided in Appendix B1.

Since 2011, DOT&PF Central Region (CR) has maintained a renewable term contract with STANTEC, Inc. to perform Quality Assurance (QA) document review for required Specification Section 641, Item P-641, and Specification Section 01 57 10 prior to project certification and field implementation. In 2016, DOT&PF Statewide Public Facilities began using the services provided by STANTEC Inc. QA review is performed by the Water and Wastewater group within STANTEC for all projects requesting the service. On average,

between 40 and 50 DOT&PF CR Construction and Statewide Public Facilities projects with an NOI take advantage of this service.

Before projects apply for an NOI, STANTEC reviews the initial SWPPP and provides comments for the project to incorporate, considering all pertinent environmental permits. During construction, STANTEC reviews the project-site inspection reports prior to certification, including all other documentation generated by the inspection, and provides comments to edit and correct documentation with the intent of preventing any permit non-compliance caused by paperwork errors. DOT&PF CR Construction and Statewide Public Facilities will continue using this QA contract for the foreseeable future and have no plans to terminate the service.

The DOT&PF Highway Preconstruction Manual and the DOT&PF Aviation Preconstruction Manual require Erosion and Sediment Control Plans (ESCP) to be developed for each project owned, designed, or administered by the DOT&PF. The ESCP provides sufficient information and guidance in the contract documents so that the Construction Contractors can prepare a well-conceived, cost effective SWPPP as required by the CGP. The DOT&PF assigns design and environmental staff, and the DOT&PF CR Storm Water Specialist to review the ESCP.

The review process for highway projects is as follows:

- The ESCP writer develops a project specific ESCP “early” and in collaboration with the DOT&PF Construction Section and the DOT&PF Environmental Analyst. The DOT&PF Highway Preconstruction Manual does not specify when the ESCP is reviewed. However, the ESCP needs to show permanent erosion and sediment control features, including final stabilization, on the roadway plan and detailed drawings. For small and simple projects, the ESCP may be reviewed at the Plans-in-Hand (PIH) phase (representing when the plans, specifications, and estimate are approximately 75 percent complete). For large and complex projects, the ESCP is reviewed at the Plans, Specifications, and Estimate (PS&E) phase (representing when the plans, specifications, and estimate are approximately 95 percent complete).
- Individuals submit their written comments to the Design Project Manager or give the ESCP writer red-lined edits of the ESCP.
- The ESCP writer can discuss comments or the red-lined edits with the individual who wrote the comments. DOT&PF enters a response to all comments.
- The Design Project Manager checks and verifies that the ESCP review comments are incorporated at the time bid documents receive FHWA project certification. FHWA requires DOT&PF certification stating that the Final PS&E (representing when the plans, specifications, and estimate are 100 percent complete and ready for bid) is complete and has been developed in accordance with applicable design standards and the Title 23 USC responsibilities assumed by DOT&PF in the Stewardship and Oversight Agreement dated December 21, 2012.
- The Design Project Manager files the ESCP comments after certification.

The review process for aviation projects is as follows:

- The ESCP writer develops a project-specific ESCP for all projects. The ESCP is reviewed at the Plans-in-Hand (PIH) phase (representing when the plans, specifications, and estimate are approximately 75 percent complete). The PIH documents ensure conformity with project scope and design standards, verify environmental commitments, review design details and coordinate technical recommendations, assess the cost-effective constructability of the project, and evaluate the quality of the product.

- Individuals enter their review comments into the Design Review Comment web page or give the ESCP writer red-lined edits of the ESCP.
- ESCP writer may discuss comments or the red-lined edits with the individual who wrote the comments. DOT&PF enters all comment responses on the comment web page.
- Individuals review the Revised ESCP at the Plans, Specification, and Estimate (PS&E) phase (representing when the plans, specifications, and estimate are approximately 95 percent complete).
- Individuals review the PS&E ESCP and follow the same process as the PIH ESCP.
- The DOT&PF Design Project Manager checks and verifies the ESCP review comments are incorporated at the time bid documents receive FAA project certification. The FAA requires DOT&PF Certifications stating that they will comply/have complied with statutory and FAA-imposed administrative requirements.
- The Design Project Manager files the ESCP comments after certification.

In addition, on large projects, a separate ESCP-focused meeting occurs after the PS&E review. This meeting discusses the ESCP comments from above and project-specific stormwater issues. The Design Project Manager follows the same process as described above to check and verify ESCP review comments and then files the comments after certification.

DOT&PF is a co-operator on projects with the Construction Contractor performing the work. After construction activities begin, most DOT&PF projects with an active NOI are subject to a documentation audit and field review performed by a CR Storm Water Specialist. After the initial SWPPP Documentation audit and field review are completed, the projects are usually visited monthly to perform an informal check on documentation and field conditions. The review is based on the ADEC Inspection Checklist – Construction General Permit AKR10. Four (4) projects operating within the MS4 permit area participated in a documentation and field review prior to 2024. Two (2) projects operating within the MS4 permit area participated in this documentation and field audit in 2024:

1. CFHWY00132 – Minnesota Dr: Tudor to 15th Ave. Pavement Preservation: June 5, 2023
2. CFHWY00551 – Anchorage Area Drainage Improvements FY2019: June 14, 2024
3. CFAPT01064 – ANC RON 3 & 4 Rehabilitation: May 16 2024
4. CHHWY00568 – AMATS: Hiland Rd MP 0 to 3.2 Pavement Preservation: August 31, 2024

Private and Municipal Projects: The WMS continues to review construction SWPPPs for projects conducting ground disturbance greater than 10,000 square feet. The types of projects reviewed include any work requiring a building permit, utility work, new subdivisions, and road projects.

In 2024, WMS reviewed and approved approximately 264 residential permits, 84 commercial buildings, and several commercial and government building additions. WMS also conducted SWPPP reviews of 24 Municipal Projects. The Municipal Development Services Division computer-based building permit administration system continues to track and document plan reviews and approvals in 2024. It also handles documentation for Construction Site Inspections and Enforcement.

2.2.1 Inspection and Enforcement Tracking

DOT&PF Projects: A summary of inspection activities shows that DOT&PF conducted 215 site inspections on 13 projects within the MS4 permit area in 2024. DOT&PF performed:

- 152 site inspections on nine (9) highway projects ranging from major highway realignment to repaving arterial roads, and permanent 2018 earthquake repairs.

- 63 site inspections on four (4) aviation projects at the Ted Stevens Anchorage International Airport that include major taxiway and taxi lane reconstruction and facility support projects.

For each of these inspections, DOT&PF reviewed the SWPPP or other site documentation and performed a physical inspection of the site to confirm there were no illicit discharges or incidents of permit noncompliance. After each visit, DOT&PF prepared an inspection report and included the report in the SWPPP. Any required corrections were given to the site representative. In 2024, no stop work orders were issued to any DOT&PF construction project within the MS4 permit area. The records for site inspections, along with associated compliance follow-up, are available for review at individual project offices.

Private and Municipal Projects: A summary of inspection activities reveals that 185 commercial site inspections and 206 residential site inspections were conducted during 2024, including 10 construction-related inspections from the illicit discharge reporting website located at:

<https://www.muni.org/Departments/OCPD/development-services/report-problem/Pages/default.aspx>

For each of these inspections, the SWPPP or other site documentation was reviewed, and a physical inspection of the site was performed to confirm there were no illicit discharges. After the visit, an inspection report of findings and any required corrections were given to the site representative. Where corrections were indicated, a re-inspection was scheduled to confirm compliance. When compliance isn't achieved within the specified period, a stop work order is issued until compliance is achieved. In 2024, no stop work orders were given. The records for site inspections, along with associated compliance follow-up, are available for review at WMS.

2.2.2 Enforcement Response Policy

DOT&PF Projects: DOT&PF's Enforcement Response Policy is contained in the following documents:

- Alaska Construction Manual, March 10, 2023 Edition, Chapter 9.9 SWPPP & HMCP Implementation and Monitoring, the most current edition is dated February 16, 2021
- Standard Specification Item 641 Erosion, Sediment, and Pollution Control for Highway Construction (identified as Standard Modification HSM20-38), the most current edition is dated December 31, 2021
- Item P-641 for Erosion Sediment and Pollution Control Airport Construction, most current edition is dated December 31, 2021
- Standard Specification Item 01 57 10 Erosion, Sediment, and Pollution Control for Public Facilities Construction, most current edition is dated November 15, 2021

The Alaska Construction Manual spells out the inspector's qualifications and duties, non-compliance reporting, and monitoring paperwork. The standard specifications provide project and administration requirements relating to the control of erosion, sedimentation, and the discharge of pollutants. The work must follow applicable local, state, and federal requirements, including the CGP and the MS4 Permit. DOT&PF personnel contractually enforce the stormwater specifications on each construction project.

These specifications authorize DOT&PF personnel to verbally warn and provide written notices to the construction project after each inspection. The SWPPP Construction Inspection Report and the Corrective Action Log document the timely maintenance or corrective actions required.

DOT&PF revised Section 641 Statewide and Regional Highway Specifications and Item P-641 Statewide and Regional Aviation Specifications in 2019, because of an initiative implemented by the DOT&PF

Statewide Design and Engineering Services Office to review all DOT&PF manuals biennially and revise them as needed.

DOT&PF has revised Specification 641, Item P-641, and Section 01 57 10 - the Statewide and Regional Highway, Aviation, and Public Facility Specifications respectively, to conform with the reissuance of the CGP in 2021. Specification 641 received final approval in September 2021. Item P-641 received final approval in December 2021. Section 01 57 10 received final approval in November 2021.

Escalation enforcement measures include:

- Orally suspending the work if the suspension is to protect workers, the public, or the environment from imminent harm
- Written suspension of work explaining the defects, reasons, corrective actions, and time allowed to complete the corrective actions.
- Withhold monies from the construction contractor until corrective action is completed.
- Assessing damages or equitable adjustments against the contract amount
- Employing others to perform corrective actions and deduct the costs from the contract amount.

Alaska Construction Manual link is:

https://dot.alaska.gov/stwddes/dcsconst/assets/pdf/constman/2023/acm_all.pdf

Highway Standard Modification for Section 641 for Highways Erosion, Sedimentation, and Pollution Control (identified as Special Provision HSP20-5A) link is:

https://dot.alaska.gov/stwddes/dcspubs/assets/pdf/directives/attach/23/041823_hsp20_5a.pdf

Aviation Standard Specification for Section P-641 for Airports Erosion, Sedimentation, and Pollution Control (identified as Statewide Airport Special Provision ASP-9A) link is:

https://dot.alaska.gov/stwddes/dcspubs/assets/pdf/directives/attach/23/041823_asp_9a.pdf

Links for Section 01 57 10 for Public Facility Construction are not currently available.

Private and MOA Projects: The MOA updated its escalating enforcement policy for the fourth permit term. It was provided with the 2020 Annual Report.

2.2.3 Construction General Permit Violation Referrals

DOT&PF Projects: DOT&PF Erosion and Sediment Control Advisors provide guidance to project staff on reporting noncompliance in the Alaska Construction Manual, Chapter 9.9. In 2024, DOT&PF had one (1) non-compliant storm water discharge to report to ADEC within the MOA.

- Project No. CFHWY00213 – Seward Highway: MP 75-90 Road & Bridge Rehabilitation – Phase II / Project No. CFWHY00308 – Portage Curve Multimodal Connector. These projects had a non-allowable discharge on May 24, 2024, see Appendix B2 for a copy of the discharge report. The project Tracking No. is AKR10GM40.

ADEC visited two (2) DOT&PF projects located in the MS4 permit area for CGP compliance inspections in 2024. The findings of these inspections did not result in any notices of violation being issued to the DOT&PF. See Appendix B3 for a copy of these reports.

- Project No. CFHWY00551 Anchorage Area Drainage Improvements was visited by ADEC for a compliance inspection on April 23, 2024. The project NOI Tracking No. is AKR10H0DN &.
- Project No. CFAPT00465 ANC Taxiway Z West Improvements was visited by ADEC for a compliance inspection on June 19, 2024. The project NOI Tracking No. is AKR10H0H.

Private and MOA Projects: The Permit requires the MOA to report to ADEC when they find projects that failed to comply with the CGP prior to breaking ground. In 2024, MOA did not file any reports of non-compliance to the ADEC.

2.3 Construction Program Education and Training

During the second term of the permit, agencies and interest groups agreed on a standardized training course targeted at construction site owners and operators and their key personnel. In 2012, the Memorandum of Understanding to establish Certified Erosion and Sediment Control Leads in Alaska (AK-CESCL) was updated by eight governing members comprised of the ADEC, the Alaska Department of Natural Resources (ADNR), the DOT&PF, the Alaska Railroad Corporation, the Associated General Contractors, the MOA, the US Army Corp of Engineers, and the Associated Builders and Contractors of Alaska. The original agreement, training requirements, and course elements for the AK-CESCL program were provided in the 2010 Annual Report. The updated agreement, provided in the 2013 Annual Report, made some minor revisions to clarify the procedures of the training program. In 2015, the Alaska Storm Water Steering Committee approved a one-day, eight-hour Refresher Course to satisfy the AK-CESCL renewal requirements. In 2017, the agreement was updated to continue the program as laid out in the 2012 amendment. It was provided in the corresponding annual report.

The refresher course is a summary of the two-day initial AK-CESCL class. To be eligible to take this training, you must have an active AK-CESCL number and have taken the two-day (16-hour) class or refresher class within the last three years. It thoroughly examines concepts of erosion and sediment pollution control and design procedures as they apply to construction projects. The refresher course is a training and certification program to comply with the ACGP and the MOA's SWTPRGM. The refresher course stresses risk management, reviews proper best management practices, and provides guidance. Upon passing the 8-hour refresher course, the applicant is granted an AK-CESCL certificate. Applicants not passing the (8-hour) refresher course must retake the two-day (16-hour) class.

In 2020, due to COVID-19, the Steering Committee gave current holders of CESCL cards a one-year extension to accommodate the unavailability of in-person training. In 2021, the group developed online training. Ongoing training is additionally available through Alaska General Contractors and Alaska Safety Alliance.

Agencies met in 2024 to discuss training needs, and the program was updated and recertified in 2024. The website for the program is:

<https://AK-CESCL.com>

For DOT&PF: DOT&PF participated in the following trainings:

- AK-CESCL Certification and AK-CESCL Recertification Courses: The DOT&PF CR Construction section sponsored two (2) AK-CESCL Certification classes, one (1) online and one (1) in-person, and five (5) AK-CESCL Recertification classes on-line in 2024. The classes were taught by the DOT&PF CR Storm Water Specialist, Joshua James. AK-CESCL instruction sponsored by DOT&PF is for internal staff. A total of 126 certifications were issued to DOT&PF staff in 2024.

- International Erosion Control Association 2024 Annual Conference and Expo (IECA 2024 AC&E): DOT&PF enrolled regional stormwater specialist Athena Marinkovic and Project Manager Joshua James in the IECA 2024 AC&E to further their knowledge and training. The event took place in Spokane, WA on February 25-28, 2024. The event is the largest stormwater event and exposition in the world and attracts participants from around the globe. The four-day event has had over 220 technical and training sessions taught by industry experts.
- Spring Fling: DOT&PF CR Construction Section holds an annual 16-hour training event for their entire construction staff. This training includes updates on preferred BMPs, control measures, innovative approaches, regulation changes, permit updates, and policy or standards updates. DOT&PF held Spring Fling in person on March 19-20, 2024. The event lasted eight hours each day.
- 2024 Watershed Update/APDES Annual Meeting: March 27, 2024. This half-day meeting reviewed the findings of monitoring, assessments, mapping, and new programs associated with the permit.

For the MOA: The MOA conducted or participated in the following training:

- 2024 Watershed Update/APDES Annual Meeting: March 6, 2024. This half-day meeting reviewed the findings of monitoring, assessments, mapping, and new programs associated with the permit. It was attended by members of MOA, DOT&PF, and the private sector.
- AK-CESCL Recertification Course, March 12, 2024, is an 8-hour course conducted by Creative Courses. It was attended by 23 municipal staff. Other staff who did not meet the qualifications for recertification attended the initial training course conducted by Crouse Environmental Compliance. Their certification is good until the spring of 2027.
- AK-CESCL Initial Course, April 30 – May 1, 2024, 16-hour course conducted by Crouse Environmental Compliance. It was attended by 15 municipal staff. Their certification is good until the spring of 2027.
- Nine staff participated in Introduction to Hydrologic Design in Urban Areas and EPA Storm Water Management Modeling (SWMM).
- WMS has identified an inventory of videos covering relevant topics related to stormwater management. They range from regulatory practice to updated technical practice and current events. A list of the videos is available on the MOA Stormwater YouTube Channel:

https://www.youtube.com/channel/UCdr0yQY12_mDVHTMaRVBFVw

3. Storm Water Management for Areas of New and Redevelopment

3.1 Regulatory Mechanisms and Standards

3.1.1 Ordinance and/or Regulatory Mechanism

DOT&PF Projects: DOT&PF regulates project development through the Alaska Highway Preconstruction Manual and Alaska Aviation Preconstruction Manual. Both manuals require DOT&PF to comply with local ordinances, therefore, all projects within the MOA follow the Municipal Design Criteria Manual (DCM).

Alaska Highway Preconstruction Manual link:

<https://dot.alaska.gov/stwddes/dcsprecon/preconmanual.shtml>

Alaska Aviation Preconstruction Manual link:

<https://dot.alaska.gov/stwddes/dcsprecon/> (under the Airport heading)

MOA Projects: The MOA regulates permanent stormwater controls on its projects through the Municipal DCM. The DCM has been updated by a committee of local community experts to guide better drainage management and to reflect the goals of Permit Section 3.1.2.

Private Projects: The MOA regulates private sector permanent stormwater controls through Anchorage Municipal Code Title 21, which refers to the DCM for policy and technical details. The DCM is discussed in the following section.

3.1.2 Storm Water Design Criteria Manual

DOT&PF Projects: Effective August 1, 2016, it is the policy of DOT&PF CR to apply the guidance contained within the latest approved version of the *MOA Anchorage Stormwater Manual* to projects located within the boundaries of the MOA. This policy was revised on May 9, 2018, to include relevant information specific to DOT&PF CR. The latest version of this policy, effective August 28, 2018, applies the guidance contained within version 1.0 of the MOA, *Anchorage Stormwater Manual, Volume 1* dated December 2017 to projects located within the boundaries of the MOA, with several exceptions laid out in the policy provided in the 2018 annual report.

Private and MOA Projects: The MOA establishes design criteria for permanent stormwater controls through Chapter 2 of its DCM, referenced from AMC Title 21. The manual's *Volume I, Management and Design Criteria*, provides guidance for new development. This manual was rewritten in 2017 to reflect current regulations and stormwater management practices. A document review during the fourth term combined with regular use and community feedback demonstrates it continues to be current with regard to regulation. Minor administrative edits are postponed until a substantial update is warranted. The design criteria may be found on the WMS website at: <https://anchoragewatershed.com/>

3.2 Green Infrastructure/LID Strategy and Demonstration Projects

3.2.1 LID Incentives Strategy

Incentives for the use of LID are established for the MOA by the DCM and stormwater manuals. They include:

- **20% Area Allowance**: This provision allows runoff from up to 20% of a site to be untreated, provided an equivalent volume of water is treated from somewhere else on the site using Green Infrastructure techniques. This provision is helpful for areas with unique grading challenges or roadway projects with super-elevated curves.
- **Utilizing Landscape**: Provisions and design criteria are provided for incorporating stormwater treatment facilities into site landscaping and grading. This helps maximize the utilization of space on a site.
- **Detention and Downstream Analysis Modification**: The detention and downstream analysis requirements have been modified to allow more flexibility in designing on-site stormwater controls. Designers can now choose from two options to meet these requirements. The first option remains the same as the old criteria, where designers provide on-site detention and ensure adequate capacity in the receiving system. The second option offers a pathway for increased on-site detention with no analysis of downstream capacity.

- **Local Criteria for Storm Water Controls:** The new DCM offers detailed design criteria for a menu of stormwater “tools” tailored to Anchorage’s site-specific development challenges. These criteria demonstrate how to incorporate green infrastructure efficiently, even on challenging sites.
- **Streamlined Reporting Requirements:** The new DCM has streamlined drainage reporting requirements. For small and mid-size projects, full drainage reports have been replaced with drainage certification forms to help guide the designer through necessary considerations. For large projects, the report format has been updated and simplified.
- **Alternative Compliance:** The new DCM offers a pathway forward for projects that may have difficulty incorporating Green Infrastructure based on other conflicting municipal requirements. The Alternative Compliance route may waive conflicting requirements to encourage the use of Green Infrastructure at the discretion of the MOA.

Additionally, the MOA continues to encourage residential rain gardens and LID projects. This program encourages all types of vegetated LID techniques. Incentive support includes but is not limited to, technical guidance, manuals, brochures, websites, tours, hands-on workshops, private consultations, ongoing classroom support for school projects, and ongoing maintenance for public rain gardens.

3.2.2 LID/Green Infrastructure Projects

The DOT&PF and the MOA must collectively construct four projects or evaluate existing projects as required by Part 3.2.3 of the Permit for incorporation of LID.

DOT&PF Projects: In 2024, DOT&PF substantially completed construction on two projects that are candidates for LID evaluation under the Term IV permit.

- 1) **AMATS: O’Malley Rd Reconstruction: Phase II, Livingston-Hillside:** This reconstruction project added a two-way center left turn lane and a pathway on O’Malley Road from Livingston Street to Hillside Drive. The project constructed a 12,500 square foot infiltration basin northwest of the Anchorage Golf Course driveway intersection. A new 6-foot diameter oil and grit separator was installed upstream of the basin as part of the new storm drain system, which collects runoff from approximately 300 feet east of Cange Street to 900 feet east of Elmore Road. In the summer of 2024, DOT&PF Construction staff observed that the new infiltration basin was not performing as intended and was not fully draining during dry conditions. The project issued a change order to the construction contract to excavate 5 feet of the basin’s bottom and backfill with Porous Backfill material. This work was completed in the fall of 2024 and the basin appeared to adequately infiltrate runoff after completion.
- 2) **Dowling Rd/Seward Hwy Interchange Reconstruction:** This project reconstructed the Dowling Road and Seward Highway interchange, including construction a new bridge and realignment of existing roundabouts at the eastern and western ramp intersections. The project constructed a series of grass lined swales to collect, infiltrate, and convey runoff from impervious surfaces. Four infiltration basins were constructed that include a 3,800 square foot basin near the northbound exit ramp, a 5,200 square foot basin near the northbound entrance ramp, a 9,700 square foot basin near the southbound exit ramp, and a 7,700 square foot basin near the southbound ramp. All swales and basins were grass lined. Underdrain pipes wrapped in Porous Backfill material were installed in each basin that flow into field inlet manholes. Field inlets were raised 8 inches over the basin bottom to convey excess volume into the storm drain system.

Municipal Projects: In 2024, the Municipality of Anchorage implemented green infrastructure along Greenbelt Drive. Stormwater runoff for the Greenbelt Drive Area Reconstruction project will outfall to

designated Park Land adjacent to the project area. Disturbance to the existing vegetation will be minimized and revegetated with native trees, shrubs, and grasses. The stormwater discharge will flow through existing vegetation which will provide natural treatment prior to reaching wetlands and eventually Campbell Creek.

During the past year, several subdivisions also incorporated LID/Green Infrastructure measures in road and drainage infrastructure to reduce stormwater runoff. These include:

- 22-001 Alpine View Estates - vegetated ditches and infiltration
- 22-007 Hightower Road - vegetated ditches and infiltration
- 23-002 Basecamp 907 – infiltration and Stormceptor SC740 chambers
- 24-002 Sonoma Glen Phase V – on-property soakaway pits
- 24-003 South Gambell IPP – infiltration and Stormceptor SC740 chambers, retention ponds and vegetated ditches
- 24-004 Carol Creek Lots 1-7 - vegetated ditches and infiltration

3.2.2.1 LID EVALUATION

The Permittees are required to quantitatively evaluate the effectiveness of select LIDs by the fourth year of the Permit. This requirement is met through evaluating new projects or revisiting projects constructed in the second and third terms of the permit. The report in Appendix C1 is on the effectiveness of recently constructed systems.

Criteria for LID application will be revised based on the evaluation findings by the end of the fifth year.

3.3 Permanent Storm Water Controls Plan Review and Approval

DOT&PF Projects: DOT&PF continues to review all projects during the two phases of project development:

- Plans-In-Hand Review (approximately 75 percent complete)
- Plans, Specification, and Estimate (PS&E) Review (approximately 95 percent complete)

The CR Hydraulics Engineer reviews permanent drainage and erosion control features for projects at all three design phases for conformance to the design criteria stated in Section 3.1.2.

Municipal Projects: The MOA performs a regulatory review of all municipal projects 10,000 sf and greater in compliance with the MS4 Permit requirement under Section 3.2.4. The reviews encompass construction erosion control measures and permanent stormwater management practices. Reviews are documented through the MOA's online tracking system and are a requirement for development project permit issuance. The MOA will continue coordinating with ADEC to ensure that our projects meet the ADEC wastewater regulations.

3.4 Permanent Storm Water Management Controls Tracking & Enforcement

3.4.1 Inventory and Tracking

The Municipal Street Maintenance Division uses an asset management database to inventory and track municipal- and state-owned stormwater controls. This inventory and tracking database allow Street Maintenance to access information about the condition and maintenance requirements of the stormwater controls owned by the permittees.

The DOT&PF and CBERRSA worked with WMS to capture information about state-owned and area-wide controls. They make regular updates to incorporate MS4 public improvements and new information from construction record drawings.

Private Storm Water Controls: During the second term of the permit, WMS developed a database for new and existing stormwater controls and has since updated it annually to include new developments. As-built drawings of private stormwater controls are required before closing a Municipal Building Permit for new and redeveloped properties. These as-builts are scanned and recorded into the database. The MOA also requires the submittal of an Operations and Maintenance (O&M) agreement for private stormwater controls. During 2024, WMS continued to update information along with the functionality and accessibility of this database using web-based GIS. The goal is to try and better integrate data input, data recall, and site inspection.

3.4.2 O&M Agreements

WMS requires commercial development projects to provide a legally enforceable and transferable O&M agreement for private stormwater controls on new and redeveloped properties to document regular maintenance on private stormwater controls and demonstrate it to the MOA. The location and other relevant property information for the O&M agreements are entered into a municipal database created to assist in tracking and inspection of the permanent controls. Copies of the recorded agreements are kept on file by the MOA.

In 2024, the MOA received 15 legally recorded O&M agreements and performed post-construction permanent control inspections.

3.4.3 Inspection and Enforcement

The Permittees must ensure proper long-term operation and maintenance of permanent stormwater management practices through an inspection program.

DOT&PF and Municipal Storm Water Infrastructure: See Section 5 for details on the inspection and maintenance of DOT&PF and municipal stormwater management controls and infrastructure.

Private Stormwater Management Controls: Under the updated SWTPRGM, the MOA requires as-built (record) drawings of all constructed stormwater controls approved under a municipal permit for projects 10,000 sf and larger. The drawings are scanned into a tracking database.

Projects falling under this new requirement must request a permanent control inspection to obtain a conditional certificate of occupancy. As part of this process, projects must provide surveyed as-built permanent stormwater controls and a recorded maintenance agreement with the MOA for the upkeep of these controls. The MOA manages installed permanent stormwater controls as a “use permit” and will require periodic re-certification and inspections based on site sensitivity and past compliance. Maintenance records will be required from the owner/operator before renewal. High-priority sites requiring annual inspections will be identified based on Checklist #3 of Building Safety Handout AG 21.

During 2024, 15 new properties with private permanent stormwater controls were inspected, and 14 properties were reinspected, including sensitive sites that require annual inspection.

3.5 Permanent Storm Water Controls Training

DOT&PF: M&O headquarters staff completed the following online trainings in 2024:

- *Non-structural BMPs on February 7, 2024*
- *LID the Basics of Bioretention on February 8, 2024*
- *Industrial Storm Water Management on August 13, 2024*
- *The Evolution of Inspections: From Pencil and Paper to Data-Driven Compliance on December 18, 2024*
- *Non-Structural BMPs on December 19, 2024*
- *How to Choose the Correct BMPs for Your Construction Site on December 19, 2024*
- *Common Stormwater Violations and Tips to Avoid Them on December 19, 2024*

MOA: The MOA conducted and/or participated in the following trainings:

- 2024 Watershed Update/APDES Annual Meeting: March 6, 2024. This half-day meeting reviewed the findings of monitoring, assessments, mapping, and new programs associated with the permit. It was attended by members of MOA, DOT&PF, and the private sector.
- Additionally, a two-day training was conducted for nine MOA review staff and permit specialists on Introduction to Hydrologic Design in Urban Areas. It worked through a number of applications using SWMM Modeling with a focus on the DCM requirements. It was held on June 11 & 12, 2024.
- Staff participated in one or more of the online trainings listed below:
 - *Low Impact Development and Green Infrastructure Practices for Enhanced Stormwater Management, Presto Geosystems*
 - *PFAS Treatment Solutions Part 1: Conventional Technologies and Innovative Approaches for Implementing Such Technologies, GeoSynTec*
 - *PFAS Treatment Solutions Part 2: Destructive Technologies and a Lines of Evidence Approach to Confirm Treatment Efficacy, GeoSynTec*
 - *Predicting and Mapping the effects of the Sackett Decision, NAWM WMC*
 - *The Vital Role of Hydrometric Data in the Okanagan, Aquatic Informatics*
 - *PFAS Measurement Part 1: Where are we today, SGS Webinar*
 - *Combining Green and gray Infrastructure for Stormwater Management and Flood Risk Reduction, Stormwater University*
- WMS maintains a YouTube site with training and selected videos covering relevant topics related to stormwater management. They range from regulatory practice to updated technical practice and current events. A list of the videos is available on the MOA Stormwater YouTube Channel:

https://www.youtube.com/channel/UCdr0yQY12_mDVHTMaRVBFVw

4. Industrial and Commercial Discharge Management

4.1 Inventory of Industrial and Commercial Facilities

An inventory and map of facilities discharging to the MS4 must be updated during the second and fourth years of the Permit. It must include industrial sectors listed in 40 CFR 122.26(b)(14), facilities subject to section 313 of the Emergency Planning and Community Right to Know Act, 42 U.S.C. 11023, municipal landfills, maintenance yards and facilities, hazardous waste recovery, treatment, storage, and disposal facilities; private and public snow disposal sites; large commercial parking lots (two acres and larger) that use deicer chemicals; vehicle or equipment wash systems; animal facilities as discussed in Part 3.3.3, and any other industrial or commercial facility with the potential to impact the MS4 negatively. The Industrial Inventory and Map were completed in 2024 and submitted in Appendix D1.

4.1.1 Performance Standards

Permit part 3.3.1.3 requires the permittees to identify a stormwater discharge that is not adequately addressed and develop performance standards for the activity. This requirement is due by the end of the permit term. The permittees have identified Mobile Food Operations and Special Outdoor Events as the focus. These operations require the use of fuel generators, and it was identified that spills could occur while refueling generators, thus causing illicit discharges to the stormwater system. MOA is in the process of developing educational material and a policy for the operation of generators. The policy proposal can be found in Appendix D2. Implementation of this policy is planned to start in the spring of 2025.

4.2 Snow Disposal Sites

Part 3.3.2 requires permittees within four years to “update the inventory and map locations of all permittee-owned and privately-owned snow disposal sites that discharge directly to the MS4 or to receiving waters.” This inventory is included in Section 4.1 and its associated appendix, Inventory of Industrial and Commercial Facilities and Activities.

During the fourth year of the permit term, the permittees “must evaluate whether the current snow disposal ordinance and design criteria protect surface water quality by explicitly regulating the operation of private snow disposal sites within the MOA.” The 2024 Snow Disposal Evaluation Report is submitted in Appendix D3.

4.3 Animal Facilities

The MOA continues to track animal control facilities under the current program, based on Permit Part 3.3.3. An evaluation of the animal facilities program was submitted with the 2023 annual report. It addresses the permitted areas, including “kennels, pens, recreational facilities, stables, show facilities or other commercial animal facilities currently regulated by the MOA, dog parks, and the zoo.”

5. Storm Water Infrastructure and Street Management

5.1 Storm Sewer System Inventory and Mapping

The MOA and DOT&PF annually update their MS4 inventory from construction record drawings, as required under Permit part 3.4.1. This inventory includes:

- Pipe systems;

- Inlets, catch basins, and outfalls;
- Structural stormwater treatment controls;
- Receiving waters of the MS4;
- Sub-basins of each outfall;
- MS4 roads and parking lots; and
- MS4 maintenance and storage facilities and snow disposal sites.

These maps show the combined DOT&PF and MOA infrastructure, are updated regularly, and are available at:

<https://anchoragewatershed.com/maps.html>

5.2 Catch Basin and Inlet Inspections and Maintenance

In compliance with Permit part 3.4.2, the permittees must maintain a program to evaluate all permittee-owned or operated catch basins and inlets and take appropriate maintenance action based on these inspections.

Central Region M&O, the maintenance arm for DOT&PF's Anchorage MS4 jurisdiction, is continuing mapping efforts to correct existing DOT&PF pipe mapping as well as capture new pipe features for inclusion in maintenance mapping sets. In 2024, DOT&PF inspected 3,264 structures and cleaned 1,968 catch basins. In addition, they inspected and cleaned 46 Oil-Grit Separators (OGS).

The MOA's authorized MS4 maintenance agency for the Chugiak-Birchwood-Eagle River Rural Road Service Area (CBERRRSA) continued implementing a comprehensive catch basin and inlet inspection and maintenance program for their service area. In 2024, 13 OGS structures, 1,146 catch basins/manholes, and other drainage management structures were inspected and cleaned.

The MOA's authorized MS4 maintenance agency for the Girdwood Road Service Area (GRSA) implemented a comprehensive catch basin and inlet inspection and maintenance program for their service area. Their systems are on a bi-annual cleaning schedule based on previous fill rates. In 2024, 91 catch basins/manholes and other drainage management structures were inspected and cleaned. Another cleaning will take place in 2025 to determine annual measurements and to decide to switch from biannual to annual cleaning.

The MOA's Anchorage Road and Drainage Service Area (ARDSA), comprising most of the roads in Anchorage not maintained by road service areas or owned by DOT&PF, continued its ongoing OGS and catch basin inspection and maintenance program. During 2024, 272 OGS units were inspected and cleaned. Based on Fill rate data from previous years, 950 catch basins and manholes were cleaned annually and bi-annually. Also, 1,340 catch basins and manholes were cleaned on a 4-year cycle. A total of 2,290 catch basins & manholes were cleaned out of the total inventory of 9,983 units.

The Permittees collected fill rate data for their catch basins during the third permit term, and they updated their respective cleaning schedules considering both effectiveness and efficiency and implemented them for the 2024 cleaning season. The cleaning schedules for DOT&PF and ARDSA were provided in the 2020 annual report. The remaining operators, CBERRRSA and GRSA, continued to inspect and clean their systems annually or biannually.

5.3 Street and Road Maintenance

5.3.1 Standard operating procedures

The permittees must update and submit the Street Maintenance Standard Operating Procedures within four years of the permit's effective date. Standard Operating Procedures (SOPs) are reviewed annually by MOA and DOT&PF street maintenance agencies. When they are made, updates are submitted with the corresponding annual report. The complete updated sets are provided in Appendix E1.

5.3.2 Inventory of materials

Part 3.4.3.2 of the Permit requires permittees to "...maintain an inventory of street/road maintenance material, including use of sand and salt..." and report the inventory in the annual report. Road maintenance materials used by all MOA MS4 operators include primarily winter traction-enhancing materials. The types of materials used vary somewhat from agency to agency and street to street but mainly include applications of traction-enhancing sands and a variety of deicers and anti-icers. MOA operators add deicers to the sand before its application to the road surface to maintain sand fluidity in sanding vehicles and to help embed the sand particles in road ice. The DOT&PF applies liquid deicer directly to road surfaces or sand prior to the road surface application. Sand gradations vary by agency, with DOT&PF operators typically using a somewhat finer gradation for their mostly higher-speed roads than MOA operators, both for safety reasons and to improve the stability of the sand on the road surface. Inventory tables of these materials are summarized in Table 2 below.

Table 2 – Anchorage MS4 Street Materials Inventory, 2024

Item	Type	Units	Amt. Stored	Amt. Ordered	Amt. Used	Storage Location
DOT&PF						
Sand	M&O spec.	ton	7,000	9,000	9,000	Anchorage
Sand	M&O spec.	ton	3,500	0	2,000	Birchwood
Sand	M&O spec.	ton	800	5,000	4,000	Girdwood
NaCl	granular	ton	1,600	2,000	2,000	Anchorage
NaCl	granular	ton	4,000	400	400	Birchwood
NaCl	granular	ton	0	800	800	Girdwood
MgCl ₂	brine	gal	-	-	-	Girdwood
CaCl ₂	brine	tons			-	Anchorage
MOA-CBERRRSA						
Sand	ARDSA spec.	ton	17,500	8,000	6,800	Hiland
NaCl	granular	ton	100.96	100.96	0	Hiland
MgCl ₂	brine	gal	7,000	7,000	3,600	Hiland
MOA-ARDSA						
Sand	E-Chips	ton	15,000		8,000	Anchorage
NaCl	Granular	Ton	150		101	Anchorage
MgCl ₂	brine	gal	30,000		5,000	Anchorage
MOA-GRSA						
Sand	E-chips	Ton	738	846	1,250	Girdwood
NaCl	Granular	Ton	47.16	54	80	Girdwood
MgCl ₂	brine	gal	0	0	0	Girdwood

5.4 Street and Road Sweeping

5.4.1 Sweeping Management Plan

The permittees updated their Street Sweeping Management Plans based on the Visually Clean Standard. The permittees each developed individual sweeping plans, as required by Permit Part 3.4.4., to accommodate differences in their respective sweeping operations. These were provided in the 2020 annual report.

A list of roads where sweeping is technically infeasible was provided in the plans, and it includes alternative control measures, as required by Permit Part 3.4.4.3. A visual inspection is performed to identify trash or other pollutant issues, which are addressed and documented in ditch cleaning and catch basin cleaning. Additional measures may be determined for these roads as needed.

5.4.2 Sweeping Assessment

Permit Part 3.4.4.4 requires the permittees to "...perform annual assessments of street sweeping effectiveness to minimize pollutant discharges to storm drains and creeks..." following permit-defined performance factors. The permittees have provided their 2024 summaries of street sweeping activities in their sweeping reports in Appendices E2 and E3.

5.5 Pesticide, Herbicide, and Fertilizer Applications

DOT&PF: During 2024, pesticides were applied to control invasive weeds at specific locations within the DOT&PF Right-of-Way. A full list of the locations where pesticides were applied and the pesticides that were used are available upon request or available on the department's Integrated Pest Management plan website at:

<https://dot.alaska.gov/stwdmno/ipm/>

To reduce the discharge of pollutants associated with the applications, herbicide applications by certified applicators were in accordance with the ADEC-approved DOT&PF Integrated Pest Management (IPM) plan, ADEC pesticide control regulations 18 AAC 90, and the MOA pesticide code.

MOA: The pesticide code was updated during the second term to strengthen application restrictions, notifications, and certification requirements. These code requirements are enforced at municipal facilities, and an application log is maintained.

The MOA pesticide code Title 15.75 link:

https://library.municode.com/ak/anchorage/codes/code_of_ordinances?nodeId=TIT15ENPR_CH15.75PECO

During 2024, permittees used pesticides in the MOA greenhouses to control insects. A complete list of pesticides used is available upon request.

5.6 Storm Water Pollution Prevention Plans

Storm Water Pollution Prevention Plans for certain permittee-owned activities are required by Part 3.4.6 of the Permit. Permittees have existing plans for their material storage facilities, maintenance yards, and snow disposal sites. They are updated regularly and available at the *italicized facilities* for each owner in Table 3 and where practical at each facility site.

5.6.1 Inspections

In 2024, inspections indicated by SWPPP were performed at the facilities shown in Table 3. Corrections were made as needed. The inspection reports are on file at each facility office, and annual inspection reports are provided in Appendix E4 & E5.

Table 3 – MS4 Facilities with Storm Water Pollution Prevention Plans

Facility	Location	Activities
DOT&PF		
Anchorage Maintenance Station	5300 E. Tudor Rd., Anchorage	Equipment & Materials Storage, Maintenance
Birchwood Maintenance Station and Birchwood Airport	20651 Birchwood Spur Rd., Birchwood; SWPPP located at 5300 E. Tudor Rd., Anchorage	Equipment & Materials Storage
Girdwood Maintenance Station and Girdwood Airport	MP 90 Seward Hwy./ 888 Toad Stool Drive, Girdwood	Equipment & Materials Storage, Maintenance
O'Malley Snow Disposal Site	10675 Old Seward Hwy, Anchorage; SWPPP located at 5300 E. Tudor Rd., Anchorage	Snow Storage
Tudor Snow Disposal	6110 Tudor Road, Anchorage	Snow Storage (operating under ARDSA SWPPP)
Hiland Road Snow Disposal Site	8500 Hiland Road, Eagle River; SWPPP located at 5300 E. Tudor Rd., Anchorage	Snow Storage
CBERRRSA		
<i>Eagle River Maintenance</i>	VFW Road, Eagle River	Equipment & Materials Storage
Chugiak Maintenance Facility	19200 Kerbow Ln., Chugiak	Equipment & Materials Storage
Eagle River Snow Disposal	Eklutna Park Drive, Eagle River	Snow Storage
ARDSA		
<i>Kloep Maintenance Facility</i>	5701 Northwood Drive, Anchorage	Equipment Maintenance, Materials Storage & Snow Storage

Muldoon Maintenance & Storage Facility	7909 Boundary Ave., Anchorage	Equipment Maintenance & Materials Storage
Native Heritage Snow Disposal	8902 Heritage Center Drive, Anchorage	Snow Storage
Commercial Dr. Snow Disposal	2941 Commercial Drive, Anchorage	Snow Storage
Mountain View Snow Disposal	5100 Mountain View Drive, Anchorage	Snow Storage
Sitka Street Snow Disposal	1525 Sitka Street, Anchorage	Snow Storage
Tudor Snow Disposal	5300 Tudor Road, Anchorage	Snow Storage
C Street Snow Disposal	395 W 100 th Avenue, Anchorage	Snow Storage
Dowling Snow Disposal Site	6531 Spruce Street, Anchorage	Snow Storage

5.7 Training

The MOA and DOT&PF coordinated monthly during 2024 to discuss their respective activities and operational issues. Street managers from DOT&PF and MOA participated in the 2024 APDES Annual Meeting held on March 6, 2024, and the semi-annual meetings held on March 27, 2024, and October 23, 2024.

DOT&PF crew members and MOA Maintenance crews participate in regular staff meetings. They are given information regarding APDES permit requirements in various presentations and staff meetings to assist their understanding, decisions, and record-keeping about activities associated with Permit compliance.

DOT&PF: DOT&PF M&O staff at facilities within the Permit boundaries are required to attend SWPPP and Spill Prevention, Control, and Countermeasure (SPCC) training annually. Training is provided by the DOT&PF CR M&O environmental analyst. For 2024, this training took place online on April 25, 2024.

In addition, CR DOT&PF M&O requires that all station managers and ditch crew leads be AK-CESCL certified. In 2024, five operators from Anchorage and Girdwood stations and the Central Region DOT&PF M&O contracts engineer took and passed the AK-CESCL Refresher course; no staff needed to take the AK-CESCL full two-day class.

MOA: The MOA conducted or participated in the following training:

- The initial AK-CESCL training had 15 staff members participate.
- Recertification AK-CESCL had 23 staff participate.
- CBERRRSA provided in-house training covering safety, productivity, and operations in the spring and fall of 2024.
- Online webinar by Stormwater University: *Combining Green and Gray Infrastructure for Stormwater Management and Flood Risk Reduction*.

- ARDSA held a training session conducted by Professional Technical Services (PTS) to familiarize all staff with construction and facility SWPPP requirements for 48 crew members.
- The MOA maintains a YouTube channel for MOA Storm Water training. Playlists are available for various training topics, including Cold Weather/Climate, LID, Storm Water Management, Storm Water Construction Practices, Illicit Discharges, Inspection, Maintenance, and Rain Gardens. MOA YouTube channel for MOA Storm Water training:

https://www.youtube.com/channel/UCdr0yQY12_mDVHTMaRVBFVw

6. Illicit Discharge Management

6.1 Illicit Discharge Regulatory Strategy

The MOA regulatory authority for stormwater pollution control is in AMC Title 21.07.040. This code provides the basis for managing discharges to the storm sewer system and waters of the U.S. It conforms to Permit requirements consistent with Part 3.5.1.1, provides a stormwater permit for discharges not covered under building permits, and accommodates CGP review authorities. It is up to date with current Permit requirements.

MOA Illicit Discharge code link:

https://library.municode.com/ak/anchorage/codes/code_of_ordinances?nodeId=TIT21LAUSPLNECOFFJA12014_CH21.07DEDESTNECOFFJA12014_21.07.040DRSTWATERERCOPRDI

6.2 Illicit Discharge Reporting and Response

The Pollution Hotline, (907)343-4141, continues to operate with staff taking calls during regular business hours and retrieving messages from callers with complaints during non-business times. These hotline complaints are recorded in the MOA's Infor (Hansen) Complaint Management System and forwarded to the appropriate department for response.

The online complaint portal #ANCWorks is available to community members on the Muni.org website for complaints recording and tracking.

Online complaint submittal link:

<https://www.muni.org/anchorageworks/CRM/ServiceRequest/ServiceRequestCategory>

Table 4 tallies complaints recorded through the online tracking system. Complaints were followed up within the required two working days and, when possible, resolved within a week. *Storm Water – Construction* complaints were handled through inspections in the construction site management program. *Prohibited Discharge* complaints were handled as *Illicit Discharge* complaints.

Table 4 – Service Requests by Complaint Type, 2024

Department	Complaint Type	Number of Requests	Number Resolved
Private Development	Storm Water – Construction	19	19
WMS	Prohibited Discharges – Private property	49	49
WMS	Prohibited Discharges – ROW/Public Property	75	74

6.2.1 Illicit Discharge Mapping

Appendix F1 contains a location map of 2024 Anchorage prohibited discharge complaints. Inspectors visited all the sites and, where appropriate, initiated clean-up. There were no recurrences associated with any of the other discharges.

6.3 Dry Weather Screening

The permittees continued to implement the dry weather screening program in compliance with Permit requirements. The 2024 report is provided in Appendix F2. In 2024, one of the outfalls chosen for screening exceeded thresholds for program parameters. It is discussed in Section 1.1.

6.4 Spill Prevention and Response

The permittees must prevent, respond to, contain, and clean up all sewage and other spills that may discharge into the MS4. The Spill Response Plan Update describing MOA and DOT&PF was provided in the 2021 report.

6.4.1 2024 Spill Response

Spills that enter the MOA MS4 or receiving waters are reported to and archived by MOA staff via Infor computer software. Spills that WMS staff responded to were contained and isolated to ground surfaces but did not enter the storm drain system and are not included.

In 2024, WMS Staff responded to three spills. The first occurred on July 19, 2024, when MOA Street Maintenance visually noticed a chemical substance puddled along the roadway at the 5200 block of Juneau Street (between International Airport Road & E. 54th Ave). The MOA immediately initiated an investigation and determined that the storage yard at GCR Tires & Service was the source. GCR Tires & Service had a spill of approximately 200 gallons of Tyr-Fill due to a tote getting punctured during offloading the previous day (July 7, 2024). At the time of the spill, GCR tried to contain it with a boom and most of the substance was absorbed by their leche field system, but it was actively raining, and that contributed to the release of the spill down the gravel alleyway to the south of the GCR property and traveled West to Juneau St. and then North, stopping at a driveway culvert. US Ecology/Republic Services was contacted, and clean-up efforts were launched. ADEC requested expanded inspection of OGS structures and catch basins

downstream to the North and the West. MOA Street Maintenance inspected all requested assets, and they did not see any trace of the spill, which made it further downstream. The OGS Structures and the outfalls to Campbell Creek were visually free of this substance. GCR took full responsibility for the spill and followed ADEC's clean-up requirements.

The second spill occurred near University Lake and was reported on August 10, 2024. MOA staff responded and initially placed booms around 3 pm at the outfall of Tudor Centre into University Lake. Alaska Native Medical Center (ANMC) was contacted, and they initiated a spill response with Republic Services. MOA investigated the area and found the source of the contamination, which was a piece of heavy equipment with a hydraulic fluid leak in a South Central Foundation parking lot. There was evidence of rags and kitty litter cleaning it up, but an unknown portion escaped into the parking lot storm drain. Republic Services placed booms in the OGS, around the outfall, along the shoreline heading west, and at the mouth of the creek. The area of the lake that was contaminated was closed to the public. Republic Services started using a vac-truck to remove sheen at the outfall into the lake and the mouth of the creek. ADF&G issued wildlife hazing permits to help prevent waterfowl from entering the sheens. On August 14, 2024, MOA was issued a Letter of State Interest from ADEC. South Central Foundation took responsibility for the spill, so the MOA was not financially responsible for the clean-up.

A similar spill response occurred at the same location at University Lake in the summer of 2023. Due to two significant spills in the area, MOA developed a project to evaluate the storm drain system within Tudor Centre. The project is intended to identify and analyze possible upgrades and alternatives to the system to prevent future illicit discharges from getting into University Lake and Chester Creek. This project is planned to start in the summer of 2025.

The third spill was found at Northwood Park on December 16, 2024. On December 12, 2024, WMS received a call from ADEC about finding ducks covered in what seemed to be vegetable oil in Chester Creek near Chanshtnu Park on Muldoon Rd. No source for the contaminant was found in the area. Therefore, this triggered a multiagency city-wide search of open water with a contaminant. The agencies involved were ADFG, ADEC, USFWS, DOT&PF, WMS, and MOA Street Maintenance. On December 16, 2024, the source was found at the northern storm drain outfall in the sedimentation pond at Northwood Park. MOA Street Maintenance investigated the OGS upstream of the outfall and observed the contaminant collected there. Booms and sorbent pads were placed at the outfall to help contain the sheen and prevent ducks from entering the contaminated area. Republic Services was contacted to start the OGS and outfall cleanup. On December 20th, Republic confirmed that the substance was vegetable oil, then removed 330 gallons of contaminants from the OGS and the outfall. It appeared that all material was removed from the OGS and outfall. The boom and pads were left over the weekend at the outfall. WMS visited the site on December 23rd and found more sheen in the outfall and product in the OGS. They continued pulling storm drain lids upstream of the OGS and found a curb catch basin along W 48th Ave. with the same contaminant. No other observations were made upstream. Republic Services was called out again to clean the outfall, OGS, and the catch basin on December 26th and removed 900 gallons of contaminated water.

6.5 Used Oil and Toxic Materials

The permittees have an ongoing program for accepting hazardous materials, including used oil and toxic waste, at the Anchorage Regional Landfill and Central Transfer Station. Those locations will take up to five gallons of household hazardous waste for no cost. Information and public education materials for this program are found on the Municipal Solid Waste Services homepage at:

<http://www.muni.org/departments/sws/pages/default.aspx>

6.6 Training

Training for identifying and eliminating illicit discharges, spills, and illicit connections to the MS4 was performed with the implementation of the Dry Weather Screening Monitoring as outlined in the Monitoring Plan.

Staff training was supported by:

- 2024 Watershed Update/APDES Annual Meeting: March 6, 2024. This half-day meeting reviewed the findings of monitoring, assessments, mapping, and new programs associated with the permit. It was attended by members of the MOA, DOT&PF, and the private sector.
- A variety of online courses covering stormwater issues were taken; refer to Section 3.5.
- WMS meets for regular staff meetings where members share information about watershed activities and discuss relevant topics and videos related to stormwater management. They include illicit discharge identification, cleanup, and education. A list of the videos on WMS's YouTube Training Channel is located at:

https://www.youtube.com/channel/UCdr0yQY12_mDVHTMaRVBFVw

7. Public Education and Involvement

7.1 Public Education and Involvement

The MOA, on behalf of the permittees, agreed with the Anchorage Waterways Council (AWC) to conduct the ongoing public education required by the Permit. A complete account of education activities for 2024 is provided in Appendix G1.

In addition to the AWC activities, the MOA conducted these additional activities:

- Scoop the Poop Day: The traditional Anchorage Scoop the Poop Day was held on April 20, 2024. AWC, in conjunction with MOA WMS, hosted in-person Scoop the Poop Day events at the University Lake and Connors Bog dog parks, as well as encouraging other DIY events. WMS staffed tables at University Lake and Connors Bog and assisted in handing out trash bags, trowels, shovels, different equipment, snacks, and dog treats to members of the public to facilitate dog poop cleanup. Overall, the event was very successful, with many volunteers participating and hundreds of pounds of dog poop collected and properly disposed of at the landfill.

7.2 Targeted Education and Training

See the following sections of this Annual Report regarding targeted training for permittee staff:

- Construction - Section 2.3
- New and Redevelopment Areas - Section 3.5
- Storm Water Infrastructure - Section 5.7
- Illicit Discharge - Section 6.6

7.3 Annual Meeting

The 2024 Annual Meeting provided information to participants about the activities related to the MS4 Permit. The meeting was held on the morning of March 6, 2024, at the BP Energy Center and was attended

by over 50 people with an interest in stormwater management. Information was presented about relevant topics, including illicit discharge, dry and wet weather monitoring, and the changes to wetland delineations within the Clean Water Act. A look ahead at the planned 2024 activities was provided. The MOA, DOT&PF, and contractors participated in the meeting and answered questions from attendees. The presentation slides, program agenda, and poster summary are available in Appendix G2.

7.4 Bi-Annual Meetings

Bi-annual meetings between the permittees and ADEC were conducted in 2024 to provide a forum for discussion regarding permit activities and issues. These meeting summaries are available in Appendix G3.

7.5 Storm Water Website

In 2024, the permittees provided access to their website, found at:

<https://anchoragewatershed.com>

<https://anchoragestormwater.com>

This homepage contains all program information including draft and final project reports, data, map products, forms, permit applications, Storm Water Pollution Prevention Plan (SWPPP) guidance, and watershed plans.

8. Monitoring and Assessment

8.1 Discharges to Water Quality Impaired Waters

As listed in the Permit, pollutants of concern in the MOA receiving waters include fecal coliform bacteria, petroleum products, and, for one lake, dissolved oxygen. The MOA, acting on behalf of the permittees, will measure and evaluate the effectiveness of activities to control these pollutants of concern through the following means:

- Stormwater outfall monitoring
- Controls effectiveness monitoring
- Dry weather screening and follow-up
- Public education and involvement program

8.2 Monitoring Plan

The MOA, on behalf of the permittees, updated the “Quality Assurance Project Plan” (QAP) containing the monitoring program plan for fourth-term activities. The MOA, on behalf of the permittees, conducts monitoring for various purposes as summarized in Table 5. The Updated QAP was presented in the 2020 Annual Report.

Table 5 – Storm and Surface Water Monitoring Program Schedule

Monitoring Program Component	Proposed Sampling Dates				
	2021	2022	2023	2024	2025
Pesticide Screening	None	Aug-Sept	none	Aug-Sept	None
Dry Weather Screening	Jun-Aug	Jun-Aug	Jun-Aug	Jun-Aug	Jun-Aug
Control Measure Effectiveness	April-Nov	April-Nov	April-Nov	April-Nov	April-Nov
Stormwater Outfalls	Apr-Nov	Apr-Nov	Apr-Nov	Apr-Nov	Apr-Nov
LID Monitoring	May-Oct	May-Oct	May-Oct	May-Oct	May-Oct

8.2.1 Pesticide Screening

This sampling program is a continuation of the program started in the first permit term. Sampling is to be conducted in the second and fourth years of the permit term. Pesticide screening was performed in 2024; the report is provided in Appendix H1.

8.2.2 Storm Water Outfall Monitoring

Stormwater Outfall Monitoring was continued in 2024 according to the plan approved for the fourth term. Results are provided in Appendix H2.

8.2.2.1 Storm Water Outfall Monitoring Evaluation

An evaluation of monitoring results is required in year four of the Permit term with results provided with the applicable annual report. The 2024 Stormwater Outfall Monitoring Report (Appendix H2), Section 3.0 evaluates the results of the monitoring program. It discusses the effectiveness of street sweeping to reduce turbidity and fecal coliform bacteria in outfalls and public education to reduce fecal coliform bacteria and other relevant control measures.