ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM

ANCHORAGE MUNICIPAL SEPARATE STORM SEWER SYSTEM
INDIVIDUAL PERMIT - PROPOSED FINAL PERMIT

Permit Number: **AKS052558**

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. '1251 *et seq*., as amended by the Water Quality Act of 1987, P.L. 100-4; this permit is issued under provisions of Alaska Statutes 46.03; the Alaska Administrative Code (AAC) as amended; and other State laws and regulations. The

The MUNICIPALITY OF ANCHORAGE and
The ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
(hereafter "permittees")

is authorized to discharge from all municipal separate storm sewer system (MS4) outfalls existing as of the effective date of this permit to receiving waters of the United States which include Cook Inlet, Eklutna River, Edmonds Creek, Mink Creek, Mirror Creek, Peters Creek, Fire Creek, Eagle River, Meadow Creek, South Fork Eagle River, Ship Creek, Chester Creek, North Fork Chester Creek, Middle Fork Chester Creek, South Fork Chester Creek, Fish Creek, Campbell Creek, North Fork Campbell Creek, South Fork Campbell Creek, Little Campbell Creek, Craig Creek, Furrow Creek, Hood Creek, Little Survival Creek, Rabbit Creek, Little Rabbit Creek, Potter Creek, Bird Creek, Indian Creek, and Glacier Creek, their tributaries, associated lake systems, and wetlands located within the corporate boundary of the Municipality of Anchorage, in accordance with the conditions set forth herein.

This permit shall become effective on _____

This permit and the authorization to discharge shall expire after _____

The Permittee must reapply for permit reissuance on or before _____, 180 days before the expiration of this permit if the Permittee intends to continue operation and discharges from the MS4 beyond the term of this permit.

DRAFT	DRAFT
Signature	Date
Wade Strickland	Program Manager
Printed Name	Title

TABLE OF CONTENTS

SCHEDULE OF SUBMISSIONS 4

1.0 APPLICABILITY 6

1.1 Permit Coverage Area 6
1.2 Discharges Authorized Under this Permit 6
1.3 Permittee's Responsibilities 6
1.4 Limitations on Permit Coverage 7

2.0 STORM WATER MANAGEMENT PROGRAM REQUIREMENTS 10

2.1 Storm Water Management Program Document 10
2.2 General Requirements 10
2.3 Reviewing and Updating the Storm Water Management Program 11
2.4 Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation. 12
2.5 Reduce Pollutants To The Maximum Extent Practicable. 12
2.6 Shared Implementation with outside entities. 12
2.7 Watershed Planning. 13
2.8 Storm Water Management Program Resources 13

3.0 MINIMUM CONTROL MEASURES 14

3.1 Construction Site Runoff Control Program. 14
3.2 Storm Water Management for Areas of New Development and Redevelopment. 19
3.3 Industrial and Commercial Storm Water Discharge Management. 25
3.4 Storm Water Infrastructure and Street Management. 26
3.5 Illicit Discharge Management. 30
3.6 Public Education and Involvement 33

4.0 MONITORING, EVALUATION, REPORTING, AND RECORD KEEPING REQUIREMENTS 36

4.1 Monitoring Program Plan 36
4.2 Reporting Requirements 40
4.3 Evaluation of Overall Program Effectiveness 40
4.4 Annual Reports 41
4.5 Recordkeeping 42
4.6 Address 43

LIST OF TABLES

Table 1: Schedule of Submissions – Storm Water Management Program 4
Table 2: Impaired Receiving Waters within the MOA 9
Table 3: Construction Site Inspections 15
Table 4: Sweeping Schedule 28
Table 5: Outfall Monitoring Requirements 39
Table 6: Submission Deadlines for Annual Reports 41

LIST OF APPENDICES

APPENDIX - A: STANDARD CONDITIONS A-1
APPENDIX - B: Acronyms B-1
APPENDIX - C: Definitions C-1
APPENDIX - D: Summary Annual Report D-1
APPENDIX - E: Map E-1

SCHEDULE OF SUBMISSIONS

The Schedule of Submissions summarizes some of the required submissions and activities the permittee must complete and submit to the Alaska Department of Environmental Conservation (the Department or DEC) during the term of this permit. The permittee is responsible for all submissions and activities even if they are not summarized below.

Table 1: Schedule of Submissions – Storm Water Management Program

Part of Permit	Storm Water Management Program Component	Compliance Date	Responsibility
General Requirements			
1.3.3	Submit updated interjurisdictional agreement	Nine months from permit effective date	MOA & DOT&PF
1.3.4	Submit Program Coordination Plan	Nine months from permit effective date	MOA & DOT&PF
2.1.3	Submit Storm Water Management Program	Annually with the Annual Report	MOA & DOT&PF
2.7.1 & 2.7.2	Evaluate at least two watershed plans	Submit with fourth annual report	MOA
2.7.3	Complete scoping document for one watershed plan	Prior to the expiration date of the permit	MOA
Construction Site Runoff Control Program			
3.1.1	Revise, if necessary, ordinance or other regulatory mechanisms	Four years from permit effective date	MOA
3.1.2	Update construction storm water manual	Four years from permit effective date	MOA & DOT&PF
3.1.5	Enforcement Response Policy	Submit with first annual report	ADOT&PF
Storm Water Management from Areas of New Development & Redevelopment			
3.2.1	Revise, if necessary, ordinance or other regulatory mechanisms	Four years from permit effective date	MOA
3.2.2	Update Storm Water Design Criteria Manual	Two years from permit effective date	MOA
		Two years from permit effective date	ADOT&PF
3.2.3	Update Green Infrastructure/Low Impact Development Strategy	One year from permit effective date	MOA & DOT&PF
3.2.3.1	Evaluate and report status of pilot projects	In Fourth Year Annual Report	MOA & DOT&PF
3.2.3.3	Evaluate the effectiveness of rain gardens	In Fourth Year Annual Report	MOA & DOT&PF
Industrial and Commercial Storm Water Discharge Management			
3.3.1.4	Inventory of industrial and commercial facilities	Bi-annually	MOA & DOT&PF
3.3.2	Evaluate snow disposal ordinance	In Second Year Annual Report	MOA
3.3.3	Evaluate animal facility program	In Third Year Annual Report	MOA
Storm Water Infrastructure and Street Management			
3.4.3.2	Inventory of street maintenance materials	In each Annual Report	MOA & DOT&PF
3.4.3.3	Evaluate covered sand and salt storage	In Fourth Year Annual Report	MOA & DOT&PF
3.4.4	Annual street sweeping report	In each Annual Report	MOA & DOT&PF

Table 1: Schedule of Submissions – Storm Water Management Program

Part of Permit	Storm Water Management Program Component	Compliance Date	Responsibility
3.4.6	Annual inspections of permittee owned facilities	In each Annual Report	MOA & DOT&PF
Illicit Discharge Management			
3.5.4	Dry weather screening	With Annual Report	MOA
Public Education and Involvement			
3.6.2	Targeted Education and Training	Ongoing	MOA & DOT&PF
3.6.3	Annual Meeting	Annually	MOA & DOT&PF
3.6.4	Semi-Annual Meetings	Semi-Annually	MOA & DOT&PF
3.6.5	Storm Water Website update	One year from permit effective date, semi-annually thereafter as new material is available	MOA & DOT&PF
Monitoring			
4.1.5	Quality Assurance Project Plan (QAPP) for all analytical monitoring to be conducted	The plan must be reviewed and updated within 6 months after the effective date of the final permit. Provide DEC written notice upon completion.	MOA & DOT&PF
4.1.6	Pesticide screening	In Second and Fourth year Annual Report	MOA
4.1.7	Storm Water Outfall Monitoring	Ongoing	MOA & DOT&PF
4.1.8	Evaluation of monitoring results	In First and Fourth Year Annual Report	MOA & DOT&PF
4.1.9	Evaluation of snow storage retrofits	In Fourth Year Annual Report	MOA & DOT&PF

1.0 APPLICABILITY

1.1 Permit Coverage Area

This permit covers all areas within the corporate boundary of the Municipality of Anchorage served by the MS4s owned or operated by either the Municipality of Anchorage (MOA) or the Alaska Department of Transportation and Public Facilities (ADOT&PF).

1.2 Discharges Authorized Under this Permit

Subject to the conditions set forth herein, the permittees are authorized to discharge storm water to waters of the United States located within the corporate boundary of the MOA from: (1) all portions of the MS4 owned or operated by MOA; and, (2) all portions of the MS4 within State of Alaska highway rights-of-way owned or operated by ADOT&PF.

As provided in Part 1.4, this permit also authorizes the discharge of flows from the MS4s that are categorized as allowable non-storm water discharge, storm water discharge associated with industrial activity, and storm water discharge associated with construction activity.

1.3 Permittee's Responsibilities

1.3.1 **Individual Responsibility**. Each permittee is individually responsible for permit compliance related only to portions of the MS4 owned or operated solely by that permittee, or where this permit requires a specific permittee to take an action.

1.3.2 **Joint Responsibility**. Each permittee is jointly responsible for permit compliance:

1.3.2.1 Related to portions of the MS4 where operational or storm water management program (SWMP) implementation authority has been transferred from one permittee to another in accordance with an interjurisdictional agreement;

1.3.2.2 Related to portions of the MS4 where permittees jointly own or operate a portion of the MS4; and

1.3.2.3 Related to the submission of reports or other documents required by Parts 2.0, 3.0 and 4.0 of this permit.

1.3.3 **Interjurisdictional Agreement**. MOA and ADOT&PF must maintain an interjurisdictional agreement describing each organization's respective roles and responsibilities related to this permit. Any previously signed agreement must be updated, as necessary, in accordance with this permit. A copy of an updated interagency agreement must be submitted to the Department of Environmental Conservation (DEC or the Department) within nine months of the effective date of this permit.

1.3.4 **Program Coordination Plan**. Not later than one year from the effective date of this permit, the permittees must develop and submit to DEC a program plan describing the performance of activities defined in this permit. This plan must include, but is not limited to:

1.3.4.1 A description of how the MOA Watershed Management Section (WMS) and the ADOT&PF Construction, Maintenance & Operations and Preliminary Design & Environment Groups each intend to coordinate among all relevant MOA and/or ADOT&PF organizations within the corporate boundaries of the MOA to ensure effective program implementation and compliance with this permit; and

1.3.4.2 A description of how each permittee will work with each other and other parties within the corporate boundaries of the MOA to ensure coordinated storm water-related policies, programs, and projects within the Anchorage area.

1.4 Limitations on Permit Coverage

1.4.1 **Non-Storm Water Discharges**. Permittees are not authorized to discharge non-storm water from the MS4, except where such discharges satisfy one of the following three conditions:

1.4.1.1 The non-storm water discharges are in compliance with a separate Alaska Pollutant Discharge Elimination System (APDES) permit; or

1.4.1.2 The non-storm water discharges result from a spill and:

1.4.1.2.1 Are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to prevent and minimize the impact of such discharge; or

1.4.1.2.2 Consist of emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges; or

1.4.1.3 The non-storm water discharges satisfy each of the following two conditions:

1.4.1.3.1 The discharges consist of uncontaminated water line flushing; potable water sources; landscape irrigation (provided all pesticides, herbicides and fertilizer have been applied in accordance with manufacturer's instructions); lawn watering; irrigation water; flows from riparian habitats and wetlands; diverted stream flows; springs; rising ground waters; uncontaminated ground water infiltration (as defined at 40 CFR § 35.2005(20)) to separate storm sewers; uncontaminated pumped ground water or spring water; foundation and footing drains (where flows are not contaminated with process materials such as solvents); uncontaminated air conditioning or compressor condensate; water from crawlspace pumps; individual residential car washing; dechlorinated swimming pool discharges; routine external building wash down which does not use detergents; street and pavement wash waters, where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed); fire hydrant flushing; or flows from emergency firefighting activities; and

1.4.1.3.2 The discharges are not sources of pollution to waters of the United States. A discharge is considered a source of pollution to waters of the United States if it:

1.4.1.3.2.1 Causes excessive foam in the receiving waters or contains floating and/or settleable solids in amounts sufficient to make the water unsafe or unfit for providing water supply or other beneficial uses;

1.4.1.3.2.2 Contains oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters;

1.4.1.3.2.3 Contains substances that are in amounts sufficient to be unsightly or deleterious or which produce color, odor, or other conditions to such a degree as to create a nuisance;

1.4.1.3.2.4 Contains any substance or combination of substances in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants or humans;

1.4.1.3.2.5 Contains any substances or combination of substances that will cause or contribute to the growth of aquatic plants or algae to such degree as to create a nuisance, be unsightly, or otherwise impair the designated use; or

1.4.1.3.2.6 Causes or contributes to an exceedance of other applicable water quality standards (WQS).

1.4.2 **Discharges Threatening Water Quality.**

Permittees are not authorized to discharge storm water that the DEC determines will cause or have the reasonable potential to cause or contribute to violations of WQS in the receiving water.

1.4.3 **Snow Disposal to Receiving Waters**.

1.4.3.1 Permittee's shall select effective snow storage and disposal sites in upland areas where direct drainage to surface waters or storm drains is not possible and where the groundwater table is low. Best management practices (BMPs) at snow storage and disposal sites may include but are not limited to ditches, detention basin, dikes, berms, and vegetative buffers.

1.4.3.2 Permittee's are not authorized to dispose of snow directly to waters of the United States or directly to the MS4. Discharges from the permittee's snow disposal and snow management practices are authorized under this permit when such practices are operated using appropriate BMPs required in Part 3.0. BMPs may include but are not limited to ditches, detention basins, dikes, berms, ditches, and vegetative buffers. BMPs shall be designed, operated, and maintained to prevent and reduce pollutants in the discharge to the maximum extent practicable (MEP) to avoid excursions above the WQS in the receiving water.

1.4.4 **Discharges to Water Quality-Impaired Receiving Waters**

1.4.4.1 For purposes of this permit, the CWA §303(d) listed water bodies are those cited in the Final DEC 2010 *Integrated Report* or the most current version of this report and listed in Table 2. "Pollutant(s) of concern" refer to the pollutant(s) identified as causing or contributing to the water quality impairment. Pollutants of concern for the purposes of this permit are fecal coliform bacteria and petroleum products.

Table 2: Impaired Receiving Waters within the MOA
Impaired Receiving Waters within the MOA

Receiving Water	Pollutant(s) of Concern
Hood/Spenard Lake	Fecal Coliform Bacteria, Dissolved Oxygen
Ship Creek	Fecal Coliform Bacteria, Petroleum Products
Campbell Creek, Campbell Lake, Chester Creek, University Lake, Westchester Lagoon, Little Rabbit Creek, Fish Creek, Furrow Creek, Little Campbell Creek, Little Survival Creek, Jewel Lake	Fecal Coliform Bacteria

1.4.4.2 The permittee must conduct a storm water discharge monitoring program as required in Part 4.0.

1.4.4.3 The permittee's Storm Water Management Program (SWMP) must include a description how the activities of each minimum control measure in Part 3.0 are implemented by the permittee to control the discharge of pollutants of concern and ensure that the MS4 discharges will not cause or contribute to an excursion above applicable WQS to the MEP. This discussion must specifically identify how the permittee evaluates and measures the effectiveness of the SWMP to control the discharge of the pollutant(s) of concern. For those activities identified in Part 3.0 requiring multiple years to develop and implement, the permittee must provide interim updates on progress to date. Consistent with Part 2.1, the permittee must update and submit this description of the SWMP implementation to DEC as part of the Annual Report required in Part 4.3, and must update its description annually in subsequent Annual Reports.

1.4.5 **Storm Water Discharge Associated with Industrial and Construction Activity**. Permittees are authorized to discharge storm water associated with industrial activity (as defined in 40 CFR 122.26(b)(14)), and storm water associated with construction activity (as defined in 40 CFR 122.26(b)(14)(x) and (b)(15)), from their MS4s, only when such discharges are otherwise authorized under an appropriate APDES permit.

2.0 STORM WATER MANAGEMENT PROGRAM REQUIREMENTS

2.1 Storm Water Management Program Document

2.1.1 No later than one year from the effective date of the permit, the permittee shall review, and revise as necessary its written documentation of the SWMP as implemented within its jurisdiction. The SWMP documentation must be organized according to the program components in Parts 3.0 and 4.0 of this permit. At a minimum, the permittee must include the following information:

2.1.1.1 Ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of this permit.

2.1.1.2 A written outline describing how the permittee will implement the requirements of Parts 3.0 and 4.0 of this permit.

2.1.2 The permittee must track the annual number of inspections, official enforcement actions, and types of public education activities and outcomes, as stipulated by the respective program requirement. Information summarizing these activities during the previous reporting period must be included in the Annual Report.

2.1.3 The SWMP document must be reviewed and updated at least annually and submitted with the Annual Report.

2.2 General Requirements

2.2.1 The permittees must revise as necessary, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the MS4 to the MEP to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The SWMP must include BMPs, control techniques, system design, engineering methods, and other provisions appropriate for the control and to minimize the discharge of pollutants from the MS4.

2.2.2 The SWMP developed by the permittees and submitted to DEC covers the term of this permit and must be updated as necessary or as required by DEC to ensure compliance with Section 402(p)(3)(B) of the CWA, 33 U.S.C. §1342(p)(3)(B). Modifications to the SWMP must be made in accordance with Part 2.3 of this permit. The SWMP submitted to DEC by the permittee, and all approved updates made in accordance with Part 2.3 of this permit, are hereby incorporated by reference. All components and requirements of the SWMP are enforceable as conditions of this permit.

2.2.3 The permittees must submit any plan revisions or documents that require review and approval by DEC to the address listed in Part 4.6, and in accordance with Parts 2.3 and/or 4.1 of this permit. Within 60 days of receipt of such plans or documents, DEC shall have the right to disapprove or require modifications to the plans or documents for approval.

2.2.4 The SWMP actions and activities are outlined through the minimum control measures in Part 3.0 and the assessment/monitoring requirements described in Part 4.1. The permittee must implement a SWMP that provides:

2.2.4.1 BMPs that are selected, implemented, maintained and updated to ensure that storm water discharges do not cause or contribute to an exceedance of an applicable numeric or narrative WQS; and

2.2.4.2 Measurable goals, including interim milestones, for each BMP.

2.3 Reviewing and Updating the Storm Water Management Program

2.3.1 The permittee must annually review the SWMP as part of the preparation of the Annual Report required under Part 4.4.

2.3.2 The permittee may request changes to any SWMP action or activity specified this permit according to the following procedures:

2.3.2.1 Changes to delete or replace an action or activity specifically identified in the SWMP with an alternate action or activity may be requested at any time. Modification requests to DEC must include:

2.3.2.1.1 An analysis of why the original action or activity is ineffective, infeasible, or cost prohibitive;

2.3.2.1.2 Expectations on the effectiveness of the replacement action or activity; and

2.3.2.1.3 An analysis of why the replacement action or activity is expected to better achieve the SWMP requirements.

2.3.2.2 Change requests or notifications must be made in writing and signed by the permittee in accordance with Appendix A, Part 1.12.

2.3.2.3 Documentation of the actions or activities as required by the SWMP must be submitted to DEC upon request. DEC may review and subsequently notify the permittee that changes to the SWMP are necessary to:

2.3.2.3.1 Address discharges from the MS4 that are causing or contributing to water quality impacts;

2.3.2.3.2 Include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements;

2.3.2.3.3 Include other conditions deemed necessary by the DEC to comply with WQS, and/or other goals and requirements of the CWA; or

2.3.2.3.4 Address the SWMP requirements of the permit, if DEC determines that the permittee’s current SWMP does not meet permit requirements.

2.3.2.4 If DEC notifies the permittee that changes are necessary, the notification will offer the permittee an opportunity to propose alternative program changes to meet the objectives of the requested modification. Following this opportunity, the permittee must implement any required changes according to the schedule set by DEC.

2.4 Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation.

2.4.1 Transfer of ownership, operational authority, or responsibility for SWMP implementation requires submittal of all corrected documentation to DEC for a 60-day review before implementation of transfer.

2.4.2 The permittee must implement the SWMP in all new areas added or transferred to the permittee's MS4 (or for which the permittee becomes responsible for implementation of storm water quality controls) as expeditiously as practicable, within one year from the date upon which the new areas were added. Such additions and schedules for implementation must be documented in the next Annual Report following the transfer.

2.5 Reduce Pollutants To The Maximum Extent Practicable.

Permittees must implement and enforce a SWMP designed to reduce the discharge of pollutants from their MS4 to the MEP, and to protect water quality in receiving waters. The SWMP actions and activities as defined in this permit include BMPs, control measures, system design, engineering methods, and other provisions appropriate to control and minimize discharges of pollutants from the MS4.

2.5.1 The SWMP actions and activities are outlined in Part 2.0, and SWMP assessment/monitoring requirements are described in Part 4.0. Each permittee must use BMPs and control measures that are selected, implemented, maintained and updated to ensure that storm water discharges do not cause or contribute to an exceedance of an applicable Alaska WQS.

2.6 Shared Implementation with outside entities.

Implementation of one or more of the permit requirements may be shared with or delegated to another entity other than the permittee(s). The permittee may rely on another entity only if:

2.6.1 The other entity, in fact, implements the requirement;

2.6.2 The action, or component thereof , is at least as stringent as the corresponding permit requirement; and

2.6.3 The other entity agrees to implement the permit requirement on the permittee's behalf. A binding written acceptance of this obligation is required. The permittees must maintain this obligation as part of the SWMP. If the other entity agrees to report on the permit requirement, the permittees must supply the other entity with the reporting requirements in Part 2.0 of this permit. The permittees remain responsible for compliance with the permit obligation if the other entity fails to implement the required measure.

2.7 Watershed Planning.

2.7.1 The permittees must evaluate two individual watershed plans for specific water bodies developed in the 2010 permit term. The evaluation must identify whether plans were beneficial in accomplishing site-based low impact development (LID) practices and recommend future actions to obtain identified goals. Each watershed plan evaluation should include consideration and discussion of the following principles:

2.7.1.1 Minimize the amount of impervious surfaces (roads, parking lots, roofs) within each watershed, by minimizing the creation, extension and widening of roads and associated development.

2.7.1.2 Preserve, protect, create and restore ecologically sensitive areas that provide water quality benefits and serve critical watershed functions. These areas may include, but are not limited to: riparian corridors, headwaters, floodplains and wetlands.

2.7.1.3 Prevent or reduce thermal impacts to streams, including requiring vegetated buffers along waterways, and disconnecting discharges to surface waters from impervious surfaces such as parking lots.

2.7.1.4 Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.

2.7.1.5 Preserve and protect trees, and other vegetation with important evapotranspirative qualities. Preserve and protect native soils, prevent topsoil stripping, and prevent compaction of soils.

2.7.2 The permittees must complete both evaluations by the fourth year annual report

2.7.3 The permittees must complete a scoping document for one individual watershed plan for a specific water body prior to the expiration date of this permit. The scoping document must identify whether activities carried out in the watershed are beneficial in accomplishing site-based LID practices and recommend future actions to obtain identified goals. The scoping document shall include consideration and discussion of the principles described in Parts 2.7.1.1 to 2.7.1.5. The scoping document will be used to determine if a watershed plan will be developed in the next permit cycle.

2.8 Storm Water Management Program Resources

The permittee must provide adequate finances, staff, equipment, and other support capabilities to implement their SWMP actions and activities outlined in this permit. The permittees must report

on total costs associated with SWMP implementation over the prior 12 months in each Annual Report. Permittees are encouraged to consider establishing consistent funding sources for continued program implementation.

3.0 MINIMUM CONTROL MEASURES

The following minimum control measures must be accomplished through the permittees' SWMP:

3.1 Construction Site Runoff Control Program. The permittees must continue to implement a construction site runoff control program to reduce discharges of pollutants from public and private construction activity within its jurisdiction. "Construction activity" for this permit includes, at a minimum, construction involving a total land disturbance of 10,000 square feet or more at a single construction site or as part of a plan of common development. The permittees' construction site management program must include the requirements described below:

3.1.1 **Ordinance and/or other regulatory mechanism.** To the extent allowable under local or state law, the permittees must adopt, implement, and enforce requirements for erosion controls, sediment controls, and materials management techniques to be employed and maintained at each construction project from initial clearing through final stabilization. Each permittee must require construction site operators to maintain adequate and effective controls to eliminate pollutants in storm water discharges from construction sites. The permittees must use enforcement actions (such as, written warnings, stop work orders or fines) to ensure compliance**.** No later than four years after the effective date of this permit, each permittee must review, and update if needed, formal ordinances or other regulatory mechanisms that are consistent with this permit and the current version of the APDES General Permit for Storm Water Discharges from Construction Activities, Permit #AKR10-0000 (APDES Construction General Permit or CGP).

3.1.2 **Construction Storm Water Manual.** The permittees must update their respective construction storm water practices manuals within two years of the effective date of this permit, and require the use of the manual by construction site operators within their jurisdiction. The manual(s) must include all acceptable control practices, selection and sizing criteria, illustrations, and design examples, as well as recommended operation and maintenance of each practice. At a minimum, the manual(s) must include applicable elements for erosion control, sediment control, and pollution prevention consistent with the current version of the CGP.

3.1.3 **Plan Review and Approval**. The permittees must review and approve site plans from construction site operators within their jurisdictions. MOA must require the preparation and submittal of a storm water treatment plan or storm water pollution prevention plan (SWPPP) for the MOA's review and written approval prior to issuance of a municipal permit for construction projects. ADOT&PF must require the preparation and submittal of a SWPPP for the ADOT&PF's review and written approval prior to commencing with the construction project. Permittees must ensure that the construction site operator is prohibited from commencing construction activity prior to receipt of written approval.

3.1.3.1 The permittees must not approve any stormwater treatment plan or SWPPP unless it contains appropriate site-specific construction site control measures that meet the minimum requirements in Part 3.1.2.

3.1.3.2 Within the MOA, the portion of the storm water treatment plan describing the active construction phase may serve as the SWPPP required under the APDES Construction General Permit, provided that the required storm water treatment plan is at least as inclusive of controls as the SWPPP requirements contained in the most recent version of the APDES Construction General Permit.

3.1.3.3 Prior to the start of a construction project disturbing one or more acres or less than one acre but part of a larger common plan of development, the permittees must verify whether the construction site operator(s) have obtained necessary coverage under the operative APDES Construction General Permit.

3.1.3.4 Permittees must use qualified individuals, knowledgeable in the technical review of storm water treatment plans/storm water pollution prevention plans to conduct such reviews.

3.1.3.5 Permittees must document the review of each storm water treatment plan and SWPPP using a checklist or similar process.

3.1.4 **Construction Site Inspections.** The permittees must inspect utility projects, construction sites that require a building permit, and non-publicly funded transportation projects at the frequency specified in Table 3 below:

(Table 3: Construction Site Inspections is located on the following page.)

Table 3: Construction Site Inspections

Site	Inspection Frequency
(A) All sites 5 acres or larger in size	

(B) Other sites 10,000 sq. ft. or more, or part of a larger common plan of development, that are determined by the permittee or permitting authority to be a significant threat to water quality*	Inspection must occur at least monthly during the construction season.
(C) All other construction sites with 10,000 sq. ft. or more, or that are part of a larger common plan of development and do not meet the criteria specified in (A) or (B)	Inspection must occur at least once per construction season.
(D) Construction sites less than 10,000 sq. feet in size	Inspection must occur as needed based on the evaluation of the factors that are a threat to water quality.*
*In evaluating the threat to water quality, the following factors must be considered: soil erosion potential; site slope; project size and type; site proximity to receiving water bodies; sensitivity of receiving water bodies; non-storm water discharges; and past record of non-compliance by the operators of the construction site.	

3.1.4.1 Inspections of construction sites must include, but not be limited to:

3.1.4.1.1 Check for coverage under the Construction General Permit by requesting a copy of any application or Notice of Intent (NOI) during initial inspections;

3.1.4.1.2 Review the applicable storm water treatment plans/storm water pollution prevention plans to determine if control measures have been installed, implemented, and maintained according to the plan;

3.1.4.1.3 Assess compliance with the permittee's ordinances/requirements related to storm water runoff, including the implementation and maintenance of required control measures;

3.1.4.1.4 Assess the appropriateness of planned control measures and their effectiveness;

3.1.4.1.5 Visually observe non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;

3.1.4.1.6 Provide education and outreach on storm water pollution prevention, as needed; and

3.1.4.1.7 Provide a written or electronic inspection report.

3.1.4.2 The permittees must track the number of inspections for the inventoried construction sites throughout the reporting period to verify that the sites are inspected at the minimum frequencies required.

3.1.4.3 Based on site inspection findings, each permittee must take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance. These follow-up and enforcement actions must be tracked as well.

3.1.5 **Enforcement Response Policy for Construction Site Management Program.** Each permittee must maintain and implement a written escalating enforcement response policy (ERP) appropriate to their organization. The ERP for MOA must address enforcement of construction site runoff controls for utility construction projects, construction projects that require a building permit, and non-publicly funded transportation construction projects. The ERP for ADOT&PF must address contractual enforcement of construction site runoff controls at ADOT&PF owned construction sites and be submitted in the first annual report. Each ERP must describe the permittee's potential responses to violations with an appropriate educational or enforcement response. The ERP must address repeat violations through progressively stricter responses as needed to achieve compliance. Each ERP must describe how the permittee will use the following types of enforcement response based on the type of violation:

3.1.5.1 **Verbal Warnings:** Verbal warnings are primarily consultative in nature. At a minimum, verbal warnings must specify the nature of violation and required corrective action.

3.1.5.2 **Written Notices**: Written notices must stipulate the nature of the violation and the required corrective action with deadlines for taking such action.

3.1.5.3 **Escalated Enforcement Measures**: The permittees must have the legal ability to employ any combination of the enforcement actions below (or their functional equivalent):

3.1.5.3.1 The ERP must indicate when the permittees will initiate a Stop Work Order. Stop work orders must require that construction activities be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.

3.1.5.3.2 The permittees must also use other escalating measures provided under local or state legal authorities, such as assessing monetary penalties. The permittees may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond, or directly billing the responsible party to pay for work and materials.

3.1.5.4 **Construction General Permit Violation Referrals:** For those construction projects subject to the APDES Construction General Permit, permittees must refer non-filers (i.e., those projects that cannot demonstrate that they have appropriate APDES permit coverage) to DEC within 15 days of making that determination. In making such referrals, permittees must include, at a minimum, the following documentation:

3.1.5.4.1 Construction project location;

3.1.5.4.2 Name of owner or operator;

3.1.5.4.3 Estimated construction project size; and

3.1.5.4.4 Records of communication with the owner or operator regarding filing requirements.

3.1.5.5 **Enforcement Tracking:** The permittees must track instances of non-compliance either in hard-copy files or electronically. The enforcement case documentation must include, at a minimum, the following:

3.1.5.5.1 Name of owner/operator;

3.1.5.5.2 Location of construction project;

3.1.5.5.3 Description of violation;

3.1.5.5.4 Required schedule for returning to compliance;

3.1.5.5.5 Description of enforcement response used, including escalated responses if repeat violations occur;

3.1.5.5.6 Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violations, etc.); and

3.1.5.5.7 Any referrals to different departments or agencies.

3.1.6 **Construction Program Education and Training.** Annually the permittees must ensure that all staff whose primary job duties are related to implementing the construction program (including permitting, plan review, construction site inspections, and enforcement) are trained to conduct such activities. The education program must also provide regular training opportunities for construction site operators. This training must include, at a minimum:

3.1.6.1 Erosion and Sediment Control/Storm Water Inspectors:

3.1.6.1.1 Initial training regarding proper control measure selection, installation and maintenance as well as administrative requirements such as inspection reporting/tracking and the implementation of the enforcement response policy; and

3.1.6.1.2 Annual refresher training for existing inspection staff to update them on preferred BMPs, regulation changes, permit updates, and policy or standards updates.

3.1.6.2 *Other Construction Inspectors*: Initial training on general storm water issues, basic control measure implementation information, and procedures for notifying the appropriate personnel of noncompliance.

3.1.6.3 *Plan Reviewers*:

3.1.6.3.1 Initial training regarding control measure selection, design standards, and review procedures;

3.1.6.3.2 Annual training regarding new control measures, innovative approaches, permit updates, regulation changes and policy or standard updates.

3.1.6.4 *Third-Party Inspectors and Plan Reviewers.* If the permittee utilizes outside parties to either conduct inspections and or review plans, these outside staff must be trained per the requirements listed in Part 3.1.6.1 -3.1.6.3 above.

3.1.6.5 *Construction Operator Education.* Permittees must educate construction site operators as follows:

3.1.6.5.1 At least once per year, the permittees must either provide information to all construction companies on existing training opportunities or provide training for construction operators regarding appropriate selection, installation, and use of required construction site control measures at sites within the permit area.

3.1.6.5.2 The permittees must require construction site operators to have at least one person on-site during construction that is appropriately trained in erosion and sediment control.

3.1.6.5.3 Permittees must require construction operators to attend training at least once every three years.

3.1.6.5.4 The permittees must provide appropriate information and outreach materials to all construction operators who will be disturbing land within their jurisdiction.

3.2 Storm Water Management for Areas of New Development and Redevelopment.

At a minimum, the permittees must implement and enforce a program to control storm water runoff from new development and redevelopment projects that result in a land disturbance of 10,000 square feet or more. This control program must apply to private and public sector development, including roads and streets. The program implemented by the permittees must ensure that permanent controls or practices are utilized at each new development and redevelopment site to protect water quality. The program must include, at a minimum, the elements described below:

3.2.1 **Ordinance or other regulatory mechanisms.** In the first year of this permit, the permittees must begin carrying out the five-year implementation plan developed during the 2010 permit term. By the fourth year of the permit, the permittees must update and implement the applicable ordinance, or other enforceable regulatory requirement(s) as allowed under state law, to require the installation and long-term maintenance of permanent storm water management controls at new development and redevelopment projects.

3.2.1.1 The updated ordinance or regulatory mechanism must include site design standards for all new and redevelopment that require, in combination or alone, management measures that treat and manage the runoff generated from the first 0.52 inches of rainfall from a 24 hour event preceded by 48 hours of no measureable precipitation. Runoff treatment can be achieved by green infrastructure and LID such as canopy interception, soil amendments, evapotranspiration, rainfall harvesting, engineered infiltration, extended filtration, and/or any combination of such practices that will treat the first 0.52 inches of rainfall. An Underground Injection Control permit may be required when certain conditions are met. The ordinance or regulatory mechanism must require that the first 0.52 inches of rainfall be 100% treated with LID, except when the permittee chooses to implement the conditions of 3.2.1.2 below.

3.2.1.2 For projects that cannot meet 100% treatment through LID, extended detention and alternative water quality treatment may be substituted. The permittee allowing this option must develop and apply criteria for determining the circumstances that alternative treatment may be allowed. A determination that the treatment requirement cannot be met with LID may not be based solely on the difficulty and/or cost of implementing such measures, but must include multiple criteria that would rule out an adequate combination of practices suggested in Part 3.2.1.1, such as: inadequate room onsite to create the necessary treatment capacity; site-specific constraints such as high groundwater, shallow bedrock, or poorly infiltrative soils; and/or a land use that is inconsistent with capture and reuse or infiltration of storm water.

3.2.1.3 The ordinance or regulatory mechanism must include the following water quality requirements:

3.2.1.3.1 Projects with potential for excessive pollutant loading(s) must provide water quality treatment for associated pollutants before treatment incorporating infiltration.

3.2.1.3.2 Projects with potential for excessive pollutant loading(s) that cannot implement adequate preventive or water quality treatment measures to ensure compliance with surface water standards must properly convey storm water to an APDES or NPDES permitted wastewater treatment facility or via a licensed waste hauler to a permitted treatment and disposal facility.

3.2.1.4 The ordinance or other regulatory mechanism must include procedures for storm water plan review and approval,

3.2.1.5 The ordinance or other regulatory mechanism must include sanctions (including fines) to ensure compliance, as allowed under state or local law.

3.2.2 **Storm Water Design Criteria Manual.** The permittees must update a Storm Water Design Criteria Manual specifying acceptable permanent storm water management and control practices reflective of Part 3.2.1. MOA must comply with this Part no later than two years from the effective date of this permit. ADOT&PF must comply with this Part no later than two years from the effective date of this permit. The manual must contain design criteria for each practice. Existing manual(s) may be updated to fulfill this requirement. The manual must include:

3.2.2.1 Specifications and incentives for the use of site-based practices appropriate to local soils and hydrologic conditions;

3.2.2.2 A list of acceptable practices, including sizing criteria, performance criteria, design examples, and guidance on selection and location of practices; and

3.2.2.3 Specifications for proper long term operation and maintenance, including appropriate inspection interval and self-inspection checklists for responsible parties.

3.2.3 **Green Infrastructure/LID Strategy and Demonstration Projects.** Within one year of the effective date of this permit, the permittees must update the strategy to provide incentives for the increased use of LID techniques in private and public sector development projects within both the MOA and ADOT&PF jurisdictions. The strategy must outline the methods of evaluating the Green Infrastructure/LID demonstration projects described below. Permittees must begin implementation of the Green Infrastructure/LID Strategy and demonstration projects within three years of the effective date of this permit.

3.2.3.1 Beginning with the four year Annual Report, the permittees must report on and evaluate the status of five new demonstration projects that use LID concepts for on-site control of water quality. Projects must involve managing runoff from at least 10,000 square feet of impervious surface. At least three of the five LID demonstration projects must be ADOT&PF-owned locations. Parking lot retrofits as required in Part 3.2.3.6 may be used as demonstration projects. At least two of the demonstration sites must address drainage areas greater than five acres in size. At least one demonstration project must be located in the Chester Creek, Fish Creek, Campbell Creek, or Little Campbell Creek watersheds.

3.2.3.2 The permittees must monitor the performance of each demonstration project and report the results beginning with the fourth year Annual Report. The permittees must calculate or model changes in runoff quantities for each of the demonstration project sites in the following manner:

3.2.3.2.1 For retrofit projects, changes in runoff quantities shall be calculated as a percentage of 100% pervious surface before and after implementation of the LID practices.

3.2.3.2.2 For new construction projects, changes in runoff quantities shall be calculated for development scenarios both with LID practices and without LID practices.

3.2.3.2.3 The permittees must measure runoff flow rate and subsequently prepare runoff hydrographs to characterize peak runoff rates and volumes, discharge rates and volumes, and duration of discharge volumes. The evaluation must include quantification and description of each type of land cover contributing to surface runoff for each demonstration project, including area, slope, vegetation type and condition for pervious surfaces, and nature of impervious surfaces.

3.2.3.2.4 The permittees must use these runoff values to evaluate the overall effectiveness of various LID practices and to develop recommendations for future LID practices addressing appropriate use, design, type, size, soil type and operation and maintenance practices. The permittees must use the recommendations to update their final LID criteria, as necessary, and utilize the information obtained through the LID demonstration studies to revise the Storm Water Design Criteria Manual(s) no later than five years from the effective date of this permit.

3.2.3.3 **Rain Gardens.** Within four years of the effective date of this permit, the permittees must evaluate the effectiveness of rain gardens located in any of the following: neighborhoods, parking lots or public-private community partnerships. If feasible, demonstration projects should be located within a TMDL watershed listed in Table 2. The permittees must quantitatively evaluate the effectiveness of the rain gardens as outlined in Part 3.2.3.2 above. Previously evaluated projects may be re-evaluated for this requirement.

3.2.3.4 **Riparian Zone Management.** Prior to the expiration date of this permit, the permittees must disconnect at least one MS4 outfall from discharging from receiving waters using vegetated swales or other appropriate techniques.

3.2.3.5 **Repair of Public Streets, Roads or Parking Lots.** When public streets, roads or parking lots are repaired as defined in Appendix C, the permittees must evaluate the feasibility of incorporating runoff reduction techniques into the repair using canopy interception, soil amendments, evaporation, rainfall harvesting, engineered infiltration, rain gardens, infiltration trenches, extended filtration and/or evapotranspiration and/or any combination of the aforementioned practices. Where such practices are found to be feasible, the permittees must consider the use of such practices in the design and repair. These requirements apply only to projects whose design is started after the effective date of this permit. Beginning in the first year Annual Report, and annually thereafter, the permittees must document and list the locations of street, road and parking lot repair work completed within the last 12 month period that has incorporated such runoff reduction practices.

3.2.3.6 **Parking Lot Retrofits.** Prior to the expiration date of this permit, the permittee must retrofit at least one public facility parking lots with infiltration, evapotranspiration or reuse techniques designed to treat 100% of the parking lot runoff from the 90th percentile, 24 hour rainfall event. Each retrofit site must be located in a watershed draining to an impaired receiving water listed in Table 2. The permittees must quantitatively measure the effectiveness of the new techniques through measurement of runoff volume both before and after the retrofit.

3.2.4 **Plan Review and Approval.** The permittees must continue to review and approve pre-construction plans for permanent storm water management. The permittees must review plans for consistency with the ordinance/regulatory mechanism and Storm Water Design Criteria Manual required by this Part. The permittees must ensure that the project operator is prohibited from commencing construction activity prior to receipt of written approval from the permittee. Throughout the permit term, the MOA must require the preparation and submittal of plans for permanent storm water controls, for the MOA's review and written approval prior to commencing with the construction project. Throughout the permit term ,the ADOT&PF must require the preparation and submittal of plans for permanent storm water control for the ADOT&PF's review and written approval prior to commencing with the construction project.

3.2.4.1 The permittees must not approve or recommend for approval any plans for permanent storm water controls that do not contain appropriate permanent storm water management practices that meet the minimum requirements specified in this Part.

3.2.4.2 Permittees must use qualified individuals, knowledgeable in the technical review of plans for permanent storm water controls to conduct such reviews.

3.2.4.3 Permittees must document the review of each storm water treatment plan using a checklist or similar process.

3.2.5 **Operation and Maintenance (O&M) of Permanent Storm Water Management Controls**.

3.2.5.1 **Inventory and Tracking.** Throughout the permit term the permittees must update and maintain a database for tracking public and private sector permanent storm water controls. All of the existing permanent storm water controls must be included in the inventory database. For the purposes of this Part, new permanent controls are those installed after February 1, 2010; existing permanent controls are those installed prior to February 1, 2010. The tracking must begin in the plan review stage with a database that incorporates geographic information system (GIS) information. The tracking system must also include, at a minimum: type and number of practices; O&M requirements, activity and schedule; self-inspection schedule;

3.2.5.2 **O&M Agreements.** Throughout the permit term where parties other than the permittees are responsible for operation and maintenance of permanent storm water controls, , the permittees must require a legally enforceable and transferable O&M agreement with the responsible party, or other mechanism, that assigns permanent responsibility for maintenance of structural or treatment control storm water management practices.

3.2.6 **Inspection and Enforcement of Permanent Storm Water Management Controls.** Throughout the permit term the permittees must ensure proper long term operation and maintenance of all permanent storm water management practices within the permit area. The permittees must maintain an inspection program, and prioritize new development and redevelopment sites for inspections of permanent storm water management controls having O&M agreements. Factors used to prioritize sites must include, but not be limited to: size of new development or redevelopment area; sensitivity and/or impaired status of receiving water(s); and, history of non-compliance at the site during the construction phase.

3.2.6.1 High priority sites must be inspected at least once annually between August through October. The inspections must determine whether storm water management or treatment practices have been properly installed (i.e., an "as built" verification). The inspections must evaluate the operation and maintenance of such practices, identify deficiencies and potential solutions, and assess potential impacts to receiving waters.

3.2.6.2 The permittees must develop checklists to be used by inspectors during these inspections, and must maintain records of all inspections conducted on new development and redevelopment sites.

3.2.6.3 The permittees must continue to implement an enforcement strategy developed in the 2010 permit term to maintain the integrity of permanent storm water management and treatment practices.

3.2.7 **Education and Training on Permanent Storm Water Controls**. Throughout the permit term the permittees must maintain a training program regarding the selection, design, installation, operation and maintenance of permanent storm water controls. The training program and materials must be updated as necessary to include information on updated or revised storm water treatment standards, design manual specifications, LID techniques, and proper operation and maintenance requirements.

3.2.7.1 Annually all persons responsible for reviewing plans for new development and redevelopment and/or inspecting storm water management practices and treatment controls must receive training sufficient to determine the adequacy of storm water management and treatment controls at proposed new development and redevelopment sites.

3.2.7.2 Annually permittees must provide training to local audiences on the stormwater management requirements described in Part 3.2.

3.3 Industrial and Commercial Storm Water Discharge Management. Upon the effective date of this permit, the permittees must implement a program to reduce to the MEP the discharge of pollutants from industrial and commercial operations within their jurisdiction. Throughout the permit term, the permittees must conduct educational and/or enforcement efforts to reduce the discharge of pollutants from locations considered to be significant contributors of fecal coliform and/or petroleum products to receiving waters. At a minimum, the program must include the following elements:

3.3.1 **Inventory of Industrial and Commercial Facilities and Activities.** Within three years of the effective date of this permit, the permittees must update an inventory and map of facilities and activities discharging directly to their MS4s.

3.3.1.1 At a minimum, the inventory must include information listing the watershed/receiving waterbody, facility name, address, nature of business or activity, SIC code(s) that best reflect the facility's product or service;

3.3.1.2 The inventory must include the following types of facilities: municipal landfills (open and closed); permittee-owned maintenance yards and facilities; hazardous waste recovery, treatment, storage and disposal facilities; snow disposal sites, as discussed in Part 3.3.2; facilities subject to Section 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11023; all industrial sectors listed in 40 CFR §122.26(b)(14); vehicle or equipment wash systems; animal facilities as discussed in Part 3.3.3, including kennels, show facilities, stables, the Anchorage Zoo, or other similar commercial locations where improper management of domestic animal waste may contribute pollutants to receiving waters or to the MS4; and any other industrial or commercial facility that the permittees determines is contributing a substantial pollutant loading to the MS4.

3.3.1.3 The permittees must each identify at least one specific activity within their respective jurisdictions where storm water discharges are not adequately addressed, and develop performance standards for the activity. Examples include, but are not limited to: gas stations, animal facilities, carpet cleaners, mobile vehicle washing operations, and automobile repair shops.

3.3.1.4 The industrial and commercial inventory must be updated at least bi-annually and submitted to DEC with the Annual Report.

3.3.2 **Snow Disposal Sites.** Within one year of the permit effective date, the permittees must 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. The snow disposal site inventory and map must be updated annually thereafter. Within two years from the effective date of this permit, the permittees must evaluate whether the ordinance adopted during the 2010 permit term is effective for protecting water quality by explicitly regulating the operation of private snow disposal sites within the corporate boundaries of the MOA through ordinance or other regulatory mechanism.

3.3.2.1 Within four years, develop an evaluation report determining whether the ordinance is effective in regulating private snow disposal sites to adequately protect water quality and the report must be submitted with the corresponding Annual Report.

3.3.3 **Animal Facilities.** Within three years of the effective date of this permit, MOA must evaluate the program implemented during the 2010 permit term to further regulate commercial animal facilities or other locations within the corporate boundaries of the MOA through ordinance or other regulatory mechanism to prevent animal waste from entering the MS4 and protect water quality. The evaluation must address kennels, pens, recreational facilities, stables, show facilities, or other commercial animal facilities currently regulated by the MOA, dog parks and the zoo.

3.3.3.1 An evaluation report must be submitted with the corresponding Annual Report.

3.3.3.2 Within four years of the effective date of this permit, MOA must revise all applicable requirements as necessary in accordance with recommendations contained in the evaluation report.

3.4 Storm Water Infrastructure and Street Management. The permittees must maintain their MS4 and related facilities to reduce the discharge of pollutants from the MS4 to the MEP. All permittee activities and permittee-owned and operated facilities, must be properly operated and maintained, including but not limited to structural storm water treatment controls, storm sewer systems, roads, parking lots, snow disposal sites, waste facilities, and street maintenance facilities. The program must include the following:

3.4.1 **Storm Sewer System Inventory and Mapping.** Within three years of the effective date of this permit, each permittee must develop a maintenance tracking database with schedules, actions taken, and progressive needs for continued MS4 function. Within one year of the effective date of the permit develop and implement a process to annually incorporate information from construction record drawings to update the MS4 inventory. The inventory must identify all areas that each permittee has responsibility. The inventory must include:

3.4.1.1 The location of all inlets, catchbasins and outfalls;

3.4.1.2 The location of all MS4 collection system pipes (laterals, mains, etc.);

3.4.1.3 The names and locations of all receiving waters of the United States that receive discharges from the outfalls;

3.4.1.4 The location of all existing structural storm water treatment controls;

3.4.1.5 Identification of subbasin and approximate acreage draining into each MS4 outfall;

3.4.1.6 The location of permittee-owned vehicle maintenance facilities, material storage facilities, maintenance yards, and snow disposal sites; permittee-owned or operated parking lots and roadways;

3.4.1.7 The location, age, type, size and configuration of Oil Grit Separator (OGS) structures and the drainage area served by each OGS structure; and

3.4.1.8 The entity responsible for the maintenance of the road and drainage facility.

3.4.2 **Catch Basin and Inlet Cleaning**. Throughout the permit term, the permittees must maintain a program to inspect all permittee-owned or operated catch basins and inlets at least annually and take appropriate maintenance action based on those inspections.

3.4.2.1 Permittees will collect and develop rate of fill data for their catch basin facilities and submit the results with the fourth year annual report;

3.4.2.2 Permittees will use results from the rate study to update their maintenance schedules and standard operating procedures (SOP) prior to the expiration of the permit; and

3.4.3 Within five years of the effective date of this permit, the permittees must develop and implement a SOP for the treatment and disposal of catch basin and OGS wastes. The SOP shall address both solid and liquid portions of the waste stream.

Street and Road Maintenance. Within two years of the effective date of this permit, the permittees must update the Street Maintenance Standard Operating Procedures for Storm Water Control (SOPs) to ensure the use of BMPs that, when applied to the permittee's activity or facility, will protect water quality, and reduce the discharge of pollutants to the MEP. The SOPs must contain, for each activity or facility, inspection and maintenance schedules specific to the activity, and appropriate pollution prevention/good housekeeping procedures for all of the following types of facilities and/or activities listed below.

3.4.3.1 **Streets, Roads, and Parking Lots**. The SOPs must address, but are not limited to: road deicing, anti-icing, and snow removal practices; snow disposal areas; street/road material (e.g., salt, sand, or other chemical) storage areas; maintenance of green infrastructure/LID practices; and BMPs to reduce road and parking lot debris and other pollutants from entering the MS4. Throughout the permit term, the permittees must implement all of the pollution prevention/good housekeeping practices established in the SOPs for all roads, highways, and parking lots with more than 5,000 square feet of pollutant generating impervious surface that are owned, operated, or maintained by the permittees.

3.4.3.2 **Inventory of Street Maintenance Materials.** Throughout the permit term, the permittees must maintain an inventory of street /road maintenance materials, including use of sand and salt, and document the inventory in the corresponding Annual Reports.

3.4.3.3 **Covered Sand and Salt Storage.** Within four years of the effective date of this permit, the permittees must evaluate the performance of covered storage facilities at each of their primary material storage locations. The evaluation must include the amount of salt reduction in operations as a result of the covered storage.

3.4.4 **Street and Road Sweeping.** The permittees must update and implement their respective street sweepings management plans within nine months of the effective date of this permit. Prior to March 1, 2016, the permittees must follow the street sweeping procedures of the previous permit. Each permittees updated plan must address the recommendations and discussion for street sweeping improvements in the report *Anchorage Street Sweeping and Storm Water Controls: 2013 Performance Evaluation*. Each permittees updated plan must designate streets, roads, and public parking lots within their jurisdiction for street sweeping frequency based on land use, traffic volumes, jurisdictional area, road type, sweep method, and other pertinent information useful in determining appropriate sweeping maintenance operations. Street and parking lot categories are as follows:

- Residential – Streets and road segments that include, but are not limited to, light traffic zones and residential zones.
- Arterial and all other – Streets and road segments with high traffic volumes serving commercial or industrial districts.
- Parking lots – large lots serving schools and cultural facilities, plazas, sports and event venues or similar facilities.

3.4.4.1 Throughout the permit term the permittees must maintain a map of all designated streets, roads, and public parking lots with their respective sweeping frequency.

3.4.4.2 Within nine months of the effective date of this permit, the permittees must, at a minimum, sweep streets, roads, and public parking lots in their jurisdictions according to the following schedule in Table 4:

Table 4: Sweeping Schedule

Period in the Year	Residential	Arterial and all other	Public Parking Lots [1]
April 1 – June 15	1 tandem [2]	2 tandem	1 vacuum [3]
June 15 –Sept. 15	1 tandem	1 tandem	—
After Sept 15	1 tandem	1 tandem	1 vacuum

Notes:
1 A vacuum sweeper sucks up loosened street particles with a vacuum and sends the directly to a hopper
2 "Tandem" means one mechanical sweeper preceding one vacuum sweeper during the same sweeping event (on the same day). This is equivalent to two sweepers sweeping the same surface; a mechanical sweeper uses a conveyor belt to carry the collected debris to a hopper. Tandem method is relevant for curb and gutter configured streets. Methods may vary for ditched roads as indicated in the Street Sweeping Operations Plan.
3 Threshold size for public parking lots to be swept will be determined as permittees update their street sweeping plan(s).

3.4.4.3 For areas where street sweeping is technically infeasible, the permittees must document in the first year Annual Report why sweeping is infeasible, and document how the permittee will increase implementation of other trash/litter control procedures to minimize pollutant discharges to the MS4 and receiving waters.

3.4.4.4 The permittees must perform annual assessments of street sweeping effectiveness to minimize pollutant discharges to storm drains and creeks on the basis of the following factors and report in the Annual Report:

3.4.4.4.1 Provide in the first year Annual Report a map of the residential, arterial, and public parking lots. Identify any significant changes in subsequent Annual Reports and the basis for those changes;

3.4.4.4.2 Report annually on road sweeping activities including dates of sweep, completeness, types of sweepers used, number of passes on road surfaces and gutters, interference from parked vehicle or construction activities, other relevant qualitative information such as 'visually clean' evaluation, and frequency category, volume or weight of materials removed and a representative sample of the particle size distribution of swept material, in summary form within the Annual Report;

3.4.4.4.3 Report annually on any public outreach efforts or other means to address excess leaves and other material as well as areas that are infeasible to sweep. Incorporate efforts encouraging residents to move vehicles to maximize street surfaces available for sweeping. Include results with road sweeping activities report.

3.4.5 **Implement appropriate requirements for pesticide, herbicide, and fertilizer applications.** Permittees must continue to implement practices to reduce the discharge of pollutants to the MS4 associated with the application, storage and disposal of pesticides, herbicides and fertilizers from municipal areas and activities. Municipal areas and activities include, at a minimum, municipal facilities, public right-of-ways, parks, recreational facilities, golf courses, and landscaped areas. All MOA and ADOT&PF employees or contractors applying restricted use pesticides must be registered as certified applicators.

3.4.6 **Develop and Implement Storm Water Pollution Prevention Plans.** The permittees must conduct annual inspections and revise, as necessary, and implement SWPPPs for all permittee-owned, material storage facilities, maintenance yards, and snow disposal sites identified in the inventory required in Parts 3.3.1 and 3.4.1. Annual inspections must be submitted with the next Annual Report following the inspection. Permittee-owned facilities discharging storm water associated with industrial activity as defined in 40 CFR 122.26(b)(14) must obtain separate APDES permit coverage as required in Part 1.4.5 of this permit. Where presence of prohibited discharges indicates the need for corrective action, perform necessary corrections, update SWPPPs to incorporate preventative measures, and submit details with the annual report. When new facilities are built, develop and implement a SWPPP as part of the start-up activities.

3.4.7 **Training.** The permittees must provide regular training to appropriate permittee staff on all operations and maintenance procedures and SOPs designed to prevent pollutants from entering the MS4 and receiving waters. Appropriate permittee staff must receive training annually for their respective job duties.

3.5 Illicit Discharge Management. An illicit discharge is any discharge to an MS4 that is not composed entirely of storm water. Exceptions are described in Part 1.4 of this permit. The permittees must implement their illicit discharge management program to reduce to the MEP the unauthorized and illegal discharge of pollutants to the MS4. The program must include:

3.5.1 **Ordinance or Other Regulatory Mechanisms.** Upon the effective date of this permit, the permittees must effectively prohibit non-storm water discharges to the MS4 (except those identified in Part 1.4 of this permit) through enforcement of relevant ordinances or other regulatory mechanisms. Such ordinances or regulatory mechanisms must be updated prior to the expiration date of this permit, as necessary, to provide adequate controls. To be considered adequate, this ordinance or regulatory mechanism must:

3.5.1.1 Authorize the permittee to prohibit, at a minimum, the following discharges to the MS4, unless otherwise authorized in Part 1.4:

- Sewage;
- Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
- Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility, including motor vehicles, cement-related equipment, and port-a-potty servicing, etc.;
- Discharges of wash water from mobile operations, such as mobile automobile or truck washing, steam cleaning, power washing, and carpet cleaning, etc.;
- Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas - including parking lots,

streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc. - where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);

- Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;
- Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;
- Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and
- Discharges of food-related wastes (grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).

3.5.1.2 Prohibit and eliminate illicit connections to the MS4;

3.5.1.3 Control the discharge of spills, and prohibit dumping or disposal of materials other than storm water into the MS4.

3.5.2 Illicit Discharge Complaint Reporting and Response Program. At a minimum**,** permittees must respond to reports of illicit discharge from the public in the following manner:

3.5.2.1 **Complaint Hotline.** The permittees must maintain the dedicated telephone number and email address used by the public to report illicit discharges. This complaint hotline must be answered by trained staff during normal business hours. During non-business hours, a system must be in place to record incoming calls to the hotline and a system must be in place to guarantee timely response. The telephone number must be printed on all education, training, and public participation materials produced under Part 3.6, and clearly listed in the local telephone book and displayed on the program webpage.

3.5.2.2 **Response to Complaints.** The permittees must respond to all complaints as soon as possible, but no later than within two working days.

3.5.2.3 **Maintain log of complaints received and actions taken.** The permittees must maintain a record documenting all reports of illicit discharges and responses taken by the permittees.

3.5.3 **Illicit Discharge Mapping.** Throughout the permit term the permittees must maintain a map of reported and documented illicit discharges or illicit connections to identify priority areas. The map must identify, at a minimum, the location, type and relative quantity or severity of the discharge to the MS4. This map must be updated annually.

3.5.4 **Dry Weather Screening.** Permittees must conduct, and update as necessary, a dry weather analytical and field screening monitoring program. Field observations, monitoring, and analyses must be conducted at a minimum between June 1st and August 30th of each year. This dry weather screening program must emphasize frequent, geographically widespread monitoring to detect illicit discharges and illegal connections, and to reinvestigate potentially problematic outfalls. At a minimum, the procedures must be based on the following guidelines and criteria:

3.5.4.1 **Outfall Identification.** The permittees must update as necessary the storm water outfall identification and screening work plan, describing the reconnaissance activities that must be performed and other information to be used to determine outfalls to be screened and the project design for chemical and microbiological analysis including methodologies, thresholds to be used, and prioritization of target outfalls and land uses.

3.5.4.2 **Monitoring Illicit Discharges.** Throughout the permit term dry weather analytical and field screening monitoring must be conducted at least once between June 1st and August 30th of each year (or more often if the permittees deem necessary.)

- The permittees must monitor a minimum of 15 outfalls per year, and must have another 30 outfalls (minimum) designated as alternative sites for when a monitored outfall is dry.
- The outfalls must be geographically dispersed across the MS4 and must represent all major land uses and areas in the MS4. In addition, the permittees must ensure that dry weather screening includes, but is not limited to, screening of outfalls discharging to Category 4 and 5 water bodies listed in the State of Alaska's most recent Integrated Report.
- At a minimum, the permittees must collect grab samples for analysis of the following constituents: pH, total chlorine, detergents as surfactants; total copper; total phenols; fecal coliform bacteria; and turbidity.
- Photos may be used to document conditions.
- Results of sampling must be compared to MOA-established threshold levels and existing state water quality standards. If the station is dry (no flowing or ponded runoff), the permittees must make and record all applicable observations and select another station from the list of alternate stations for monitoring.

3.5.4.3 **Maintain Records of Dry Weather Screening.** The permittees must keep detailed records of the dry weather screening with the following information: time since last rain event; quantity of last rain event; site description (i.e., conveyance type, dominant watershed land uses); flow estimation (i.e., width of water surface, approximate depth of water, approximate flow velocity, flow rate); and visual observations (i.e., odor, color, clarity, floatables, deposits/stains, vegetation condition, structural condition, and biology).

3.5.5 **Follow-up.** The permittees must investigate recurring illicit discharges identified as a result of complaints or as a result of dry weather inspections within fifteen (15) days of its detection. Permittees must take necessary action to address the source of the ongoing illicit discharge within 45 days of its detection.

3.5.6 **Prevent and Respond to Spills to the MS4.** The permittees must prevent, respond to, contain and clean up all sewage and other spills that may discharge into the MS4 from any source (including private laterals and failing septic systems). Throughout the permit term the permittees must coordinate and update plans spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times. The Permittees must provide an update of their spill response program in the second year annual report.

3.5.7 **Facilitate Disposal of Used Oil and Toxic Materials.** Throughout the permit term the permittees must continue to facilitate the proper management and disposal or recycling of used oil, vehicle fluids, toxic materials, and other household hazardous wastes by their employees and the public. Such a program must include educational activities, public information activities, and establishment of collection sites operated by the permittees or other entity.

3.5.8 **Training.** Annually the permittees must update training materials and provide training to staff on identifying and eliminating illicit discharges, spill, and illicit connections to the MS4. At a minimum, the permittee's construction inspectors, maintenance field staff, and code compliance officers must be sufficiently trained to respond to illicit discharges and spills to the MS4.

3.6 Public Education and Involvement

3.6.1 The permittees must conduct an ongoing education and public involvement program aimed at residents, businesses, industries, elected officials, policy makers, and employees of the permittees. The goal of the education program is to reduce or eliminate behaviors and practices that cause or contribute to adverse storm water impacts. The program must be designed and conducted using the recommendations from the MOA's 2010 and 2014 public awareness study, or other more recent assessment of public knowledge.

3.6.1.1 Throughout the permit term the permittees must implement or participate in an education and outreach program that uses a variety of methods to target the audiences and topics listed below. The outreach program must be designed to achieve measurable improvements in each target audience's understanding of the problem and what they can do to solve it.

3.6.1.1.1 General Public

- General impacts of storm water flows into surface water and awareness of storm water management practices in Anchorage
- Impacts from impervious surfaces
- Source control best management practices and environmental stewardship, actions and opportunities for pet waste control/disposal, vehicle maintenance, landscaping and vegetative buffers, trash and litter, and snow/ice chemical and sand usage

3.6.1.1.2 General public and businesses, including home based and mobile businesses

- Best management practices for use and storage of automotive chemicals, hazardous cleaning supplies, vehicle wash soaps and other hazardous or polluting materials.
- Impacts of illicit discharges and how to report them

3.6.1.1.3 Homeowners, landscapers, and property managers

- Yard care techniques protective of water quality
- Best management practices for use and storage of pesticides and fertilizers
- Best management practices for carpet cleaning and auto repair and maintenance
- Low Impact Development techniques, including site design, pervious paving, retention of mature trees and other vegetation
- Pet waste management
- Storm water treatment and flow control practices

3.6.1.1.4 Engineers, contractors, developers, review staff, and land use planners

- Technical standards for storm water site plans
- Low Impact Development techniques, including site design, pervious paving, retention of mature trees and other vegetation
- Storm water treatment and flow control practices.

3.6.1.2 The permittees must implement or participate in an effort to measure understanding and adoption of behaviors by the target audiences. The resulting measurements must be used to direct education and outreach resources most effectively.

3.6.1.3 The permittees must track and maintain records of public education activities.

3.6.2 **Targeted Education and Training.** The permittees must develop and implement comprehensive education and training as outlined in this permit in the following sections:

3.6.2.1 Construction Storm Water Management Training for construction site operators and staff;

3.6.2.2 Permanent Storm Water Control Training for project operators and staff

3.6.2.3 Storm Water Infrastructure and Street Management/ Maintenance training for State and Municipal staff;

3.6.2.4 Illicit Discharge Management Training for state and municipal staff.

3.6.3 **Annual Meeting.** The permittees must jointly organize an annual meeting to coordinate implementation of the SWMP among their respective agencies, as well as with other municipal, state and federal agencies and groups involved or interested in the permittees program.

3.6.3.1 The annual meeting must be held during February, March, or April of each year.

3.6.3.2 An invitation must be sent to individuals on a list comprised of all persons responsible for implementation of the SWMP, those making decisions that may impact storm water runoff, key individuals representing groups regulated by the SWMP, regulators, and specialists (experts on water quality, information management, land-use planning, etc.), and water quality interest groups.

3.6.3.3 The meeting must include a review of the previous year's activities, a presentation and discussion of next year's activities, and a presentation and discussion of monitoring efforts for the following year.

3.6.3.4 The permittees must accept public input during the annual meeting.

3.6.4 **Semi-Annual Meetings.** The permittees must jointly organize and participate in permit coordination meetings with DEC to discuss permit requirements, SWMP implementation results over the previous two quarters, and SWMP implementation objectives for the following two quarters. At a minimum, meetings must be held in March and October of each year, or at a schedule mutually agreed upon by the permittees and DEC.

3.6.5 **Storm Water Website.** The permittees must each maintain and promote a publicly-accessible website that acknowledges the program activities; the websites must describe and provide relevant information regarding the activities of both permittees. The website must be updated within one year from the effective date of this permit, at least semi-annually thereafter as new material is available. The website must incorporate the following features:

3.6.5.1 All reports generated in compliance with this permit must be posted, in draft form when input is being solicited from the public, and in final form when the document is completed;

3.6.5.2 Information and/or links to key sites that provide education, training, licensing, and permitting related to construction and post-construction activities, industrial activities and illicit connections; and

3.6.5.3 Contact information, including phone numbers for staff and hotline, mailing addresses, and electronic mail addresses.

4.0 MONITORING, EVALUATION, REPORTING, AND RECORD KEEPING REQUIREMENTS

4.1 Monitoring Program Plan

4.1.1 **Assess Permit Compliance**. At least once per year, each permittee must individually evaluate their organization's compliance with these permit conditions, and progress toward achieving each of the control measures defined in Part 3.0. The compliance evaluation must be documented in each Annual Report required in Part 4.4.3

4.1.2 **Monitoring and Evaluation Objectives**. The permittees must conduct a monitoring and evaluation program to characterize the quality of storm water discharges from the MS4, and to evaluate effectiveness of selected storm water management practices. Not later than one year from the effective date of this permit, the permittees must develop a monitoring and evaluation plan that includes the quality assurance requirements, pesticide screening, outfall monitoring, and site retrofit activities described later in this Part. In general, the permittees must develop and conduct a monitoring and evaluation program to:

4.1.2.1 Broadly estimate the annual pollutant loading of fecal coliform bacteria and petroleum products discharged to impaired receiving waters from the MS4s;

4.1.2.2 Assess the effectiveness and adequacy of at least two control measures implemented through this permit term in reducing fecal coliform bacteria and petroleum products; and

4.1.2.3 Identify and prioritize those portions of each permittee's MS4 requiring additional controls.

An updated monitoring and evaluation plan must be submitted to DEC with the First Year Annual Report.

4.1.3 **Representative Sampling**. Samples and measurements must be representative of the nature of the monitored discharge.

4.1.4 **Analytical Methods**. Sample collection, preservation, and analysis must be conducted according to test procedures approved under 40 CFR Part 136 unless otherwise approved by DEC. Where an approved 40 CFR Part 136 method does not exist, and other test procedures have not been specified, any available method may be used after approval from DEC.

4.1.5 **Quality Assurance Requirements**. Permittees must update, implement, and maintain a quality assurance project plan (QAPP) for all analytical monitoring conducted in accordance with this permit. The QAPP must be developed concurrently as part of the monitoring and evaluation plan. The permittees must submit written notice to DEC (Appendix A, Part 1.1.2) within 6 months of the effective date of this permit affirming that its QAPP to DEC is up to date and has been developed or updated and implemented. Any existing QAPP may be modified for the requirements under this section.

4.1.5.1 The QAPP must be designed to assist in the collection and analysis of storm water discharges in support of this permit and in explaining data anomalies when they occur.

4.1.5.2 Throughout all sample collection and analysis activities, permittees must use the DEC-approved QA/QC and chain-of-custody procedures described in the following documents:

4.1.5.2.1 *EPA Requirements for Quality Assurance Project Plans EPA-QA/R-5* (EPA/240/B-01/003, March 2001). A copy of this document can be found electronically at: http://www.epa.gov/quality/qs-docs/r5-final.pdf;

4.1.5.2.2 DEC's Elements of a Good Quality Assurance Project Plan (QAPP) (DEC, 2002);

4.1.5.2.3 *Guidance for Quality Assurance Project Plans EPA-QA/G-5*, (EPA/600/R-98/018, February, 1998). A copy of this document can be found electronically at: http://www.epa.gov/r10earth/offices/oea/epaqag5.pdf ;

4.1.5.2.4 *Urban Storm BMP Performance Monitoring*, (EPA-821-B-02-001, April 2002). A copy of this document can be found electronically at: http://www.epa.gov/npdes/pubs/montcomplete.pdf

The QAPP must be prepared in the format specified in these documents.

4.1.5.3 At a minimum, the QAPP must include the following:

4.1.5.3.1 Organization chart reflecting responsibilities of key permittee staff;

4.1.5.3.2 Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample representativeness and completeness, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements;

4.1.5.3.3 Data quality objectives;

4.1.5.3.4 Map(s) and associated documentation reflecting the location of each sampling point and physical description including street address or latitude/longitude;

4.1.5.3.5 Qualification and training of personnel;

4.1.5.3.6 Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the permittees;

4.1.5.3.7 Data management;

4.1.5.3.8 Data review, validation and verification; and

4.1.5.3.9 Data reconciliation.

4.1.5.4 The permittees must amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP. Amendments must be submitted to DEC within seven days of changing the QAPP.

4.1.5.5 Copies of the approved QAPP must be maintained by the permittees and made available to DEC upon request.

4.1.6 **Pesticide Screening**. The permittees must conduct pesticide screening activities during the late summer at Lake Otis, Hideaway Lake, and Little Campbell Lake (reference basin) in years two and four using immunoassay test kits to measure pesticide concentrations. If pesticides are detected using the screening test kits, the permittees must confirm the results by collecting representative samples from the location where the occurrence was measured as soon as possible and analyzing the samples at an analytical testing laboratory using approved methods.

4.1.7 Storm Water Outfall Monitoring

4.1.7.1 The permittees must continue to implement a Storm Water Outfall Monitoring Plan consistent with the monitoring and evaluation plan objectives described above. The Storm Water Outfall Monitoring Plan must include a list of at least 30 outfalls prioritized to identify “high” and “medium” priority monitoring locations. The permittees must select a subset of at least 10 outfall locations to monitor throughout the permit term. The outfalls selected by the permittees in the Storm Water Outfall Monitoring Plan must be representative of major land uses within the Anchorage area.

4.1.7.2 Upon the effective date of this permit, the permittees must continue monitoring the identified storm water outfalls in the Anchorage area during wet weather events at least four times per year. The specific monitoring requirements are outlined in Table 5

Table 5: Outfall Monitoring Requirements

Parameter	Monitoring requirements		
	Sample location[1]	Sample frequency[2]	Sample type[3]
Dissolved Oxygen		4 times/year	Grab
pH		4 times/year	Grab
Temperature (ºC)		4 times/year	Grab/Recording
Turbidity		4 times/year	Grab/Recording
Flow (cfs)		4 times/year	Grab/Recording
Biochemical Oxygen Demand, 5-day (mg/L)		4 times/year	Grab
Fecal coliform bacteria (#colonies/100mL)		4 times/year	Grab
Hardness (mg/L)[4]		4 times/year	Grab
Total Copper (µg/L)[4]		4 times/year	Grab
Total suspended solids (mg/L)		4 times/year	Grab
Total Aromatic Hydrocarbons (TAH), and Total Aqueous Hydrocarbons (TaqH) [5]		4 times/year	Grab

1 Outfall locations must be defined in the permittees' Storm Water Outfall Monitoring Plan.
2 A minimum of four (4) samples must be collected in calendar year assuming the presence of storm events sufficient to produce a discharge.
3 Permittees may use other sample types as long as previously identified in the monitoring plan. Grab samples may be taken manually or with an automatic water sampler
4 Sample for Hardness and Total Copper in years three and four only.
5 Sampling of this parameter depends upon the characteristic of, or potential for, this pollutant within the contributing area to the outfall. This parameter may or may not be required at all outfalls based on the analysis and rationale presented in the monitoring plan.

4.1.8 **Evaluate Monitoring Results**. Within one year and four years of the effective date of the permit, evaluate the results of the monitoring program to-date and submit the results with the Annual Report. In the evaluation, discuss the effectiveness of street sweeping to reduce turbidity in the outfall, street sweeping and public education to reduce fecal coliform bacteria in the outfall, and other trends or characteristics that may appear as a result of monitoring.

4.1.9 **Evaluate Snow Storage Retrofits**. The permittees must continue to monitor their new or retrofitted snow storage sites according to the criteria developed by MOA-Watershed Management Section (WMS) regarding siting, design and operation and/or by using infiltration, evapotranspiration or reuse techniques. The permittees must quantitatively assess the effectiveness of their retrofits by measuring changes in chloride and turbidity in melt water at least twice during the permit term and must document results in a final project report to be submitted in the fourth Annual Report.

4.2 Reporting Requirements

4.2.1 **Storm Water Discharge Monitoring Report**. Annually, all storm water discharge monitoring data must be submitted as part of the Annual Report. At a minimum, this Storm Water Discharge Monitoring Report must include:

4.2.1.1 Dates of sample collection and analyses;

4.2.1.2 Results of sample analyses; and

4.2.1.3 Location of sample collection.

4.2.2 Annual Report. One year from the effective date of this permit, and annually thereafter, each permittee must prepare and submit an Annual Report to DEC. Copies of all Annual Reports must be made available to the public, at a minimum, through a permittee-maintained website, or other easily accessible location. The following information must be contained in each Annual Report:

4.2.2.1 Each report must assess the permittee's compliance with this permit and progress towards achieving the identified actions and activities for each control measure in Parts 3.0 and 4.0. The status of each activity must be addressed, even if activity has previously been completed or not yet been implemented;

4.2.2.2 Results of any information collected and analyzed during the previous 12 month period, including storm water discharge, pesticide screening, and any other information used to assess the success of the SWMP;

4.2.2.3 A summary of the number and nature of complaints received by the permittees, as well as a summary of the number and nature of inspections, formal enforcement actions, and/or other similar activities performed by the permittees;

4.2.2.4 Copies of education materials, ordinances (or other regulatory mechanisms), inventories, guidance materials, or other products produced as a result of actions or activities required by this permit;

4.2.2.5 A general summary of the activities the permittees plan to undertake during the next reporting cycle (including an implementation schedule) for each minimum control measure;

4.2.2.6 A description and schedule for implementation of additional controls or practices that may be necessary, based on monitoring results, to ensure compliance with applicable WQS; and

4.2.2.7 Notice if the permittees are relying on another entity to satisfy any of the permit obligations, if applicable.

4.3 Evaluation of Overall Program Effectiveness

Annual Effectiveness Assessment – At least annually the permittee must evaluate its compliance with the permit conditions, the appropriateness of identified BMPs, and progress

toward achieving identified measurable goals for each of the minimum control measures in Part 3.0. This evaluation of program compliance must be documented in the Annual Report. The annual effectiveness assessment must:

4.3.1 Use the monitoring and assessment data described in Part 4.1 to specifically assess the effectiveness of each of the following:

4.3.1.1 Each significant activity/control measure or type of activity/control measure implemented;

4.3.1.2 Implementation of each major component of the SWMP ; and

4.3.1.3 Implementation of the SWMP as a whole.

4.3.2 Identify and use measurable goals, assessment indicators, and assessment methods for each of the items listed in Part 4.3.1.

4.3.3 Document the permittee's compliance with permit conditions.

4.3.4 Based on the results of the effectiveness assessment, the permittee must annually review their activities or control measures to identify modifications and improvements needed to maximize SWMP effectiveness, as necessary to achieve compliance with this permit. The permittee must develop and implement a plan and schedule to address the identified modifications and improvements. Base activities/control measures that are ineffective or less effective than other comparable base activities/control measures must be replaced or improved upon by implementation of more effective base activities/control measures.

4.4 Annual Reports

4.4.1 **Submission Deadlines -** According to the schedule in Table 6: Submission Deadlines for Annual Reports, and annually thereafter, the permittee must submit an Annual Report for the previous twelve months to DEC at the address in Part 4.6. The Annual Report must clearly refer to the permit requirements and describe in quantifiable terms the status of activities undertaken to comply with each requirement. In addition, copies of all Annual Reports must be available to the public through the municipal library system, a permittee-maintained website, or other easily accessible location.

Table 6: Submission Deadlines for Annual Reports

Reporting Period	Submission Deadline
1st year Annual Report (permit issuance date – December 2015)	February 15, 2016
2nd year Annual Report (January 1, 2016 – December 31, 2016)	February 15, 2017
3rd year Annual Report (January 1, 2017 – December 31, 2017)	February 15, 2018
4th year Annual Report (January 1, 2018 – December 31, 2018)	February 15, 2019
5th year Annual Report (January 1, 2019 – permit expiration date[1])	February 15, 2020

Note:
1. Unless the permit is extended to or past December 31, 2019; in which case December 31, 2019. Subsequent reporting periods will follow similar format for the calendar year with submission deadline of February 15th the following year.

4.4.2 **Summary Annual Report** – The permittee must use the MS4 – Summary Annual Report template in Appendix D to document a summary of the past year's activities. All of the information required on this form must be submitted.

4.4.3 **Detailed Annual Report** – The permittee must also submit a detailed Annual Report that addresses the activities described in the SWMP document required in Part 2.0. The Annual Report must include, at a minimum:

4.4.3.1 An updated SWMP document as required in Part 2.0;

4.4.3.2 A description of the effectiveness of each SWMP program component or activity (see Part 4.3);

4.4.3.3 Planned activities and changes for the next reporting period for each SWMP program component or activity.

4.4.3.4 An evaluation of compliance with the requirements of this permit, the appropriateness of identified BMPs, and progress toward achieving identified measurable goals of the SWMP for each minimum control measure;

4.4.3.5 Results of any information collected and analyzed during the previous twelve month reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;

4.4.3.6 A summary of the activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule) for each minimum control measure;

4.4.3.7 Proposed changes and completed changes to the SWMP, including changes to any BMPs or any identified measurable goals for any minimum control measures;

4.4.3.8 Description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable WQS;

4.4.3.9 Notice if the permittee are relying on another entity to satisfy some of the permit obligations, if applicable;

4.5 Recordkeeping

4.5.1 **Retention of Records**: The permittee must retain records and copies of all information (including all monitoring, calibration and maintenance records and all original strip chart recordings for any continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the APDES permit, and records of all data used to complete the application for this permit) for a period of at least five years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended at the request of the DEC at any time within that time frame. Records include all information used in the development of the storm water management program, all monitoring data, copies of all reports, and all data used in the development of the permit application.

4.5.2 **Availability of Records**: The permittee must retain the SWMP required by this permit (including a copy of the permit language and all Annual Reports) at a location accessible to the DEC. The permittee must make records, including the permit application and the SWMP, available to the public if requested to do so in writing and make those records available during normal business hours. The permittee may charge the public a reasonable fee for copying requests.

4.6 Address

Submittals required by this permit must be made to the address specified in Appendix A, Part 1.12.

APPENDIX A

STANDARD CONDITIONS

APDES PERMIT

NONDOMESTIC DISCHARGES

September 2011

TABLE OF CONTENTS

1.0 Standard Conditions Applicable to All Permits A-1

1.1 Contact Information and Addresses A-1
1.2 Duty to Comply A-1
1.3 Duty to Reapply A-2
1.4 Need to Halt or Reduce Activity Not a Defense A-2
1.5 Duty to Mitigate A-2
1.6 Proper Operation and Maintenance A-2
1.7 Permit Actions A-2
1.8 Property Rights A-2
1.9 Duty to Provide Information A-2
1.10 Inspection and Entry A-3
1.11 Monitoring and Records A-3
1.12 Signature Requirement and Penalties A-4
1.13 Proprietary or Confidential Information A-5
1.14 Oil and Hazardous Substance Liability A-5
1.15 Cultural and Paleontological Resources A-6
1.16 Fee A-6
1.17 Other Legal Obligations A-6

2.0 Special Reporting Obligations A-6

2.1 Planned Changes A-6
2.2 Anticipated Noncompliance A-6
2.3 Transfers A-7
2.4 Compliance Schedules A-7
2.5 Corrective Information A-7
2.6 Bypass of Treatment Facilities A-7
2.7 Upset Conditions A-8
2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges A-8

3.0 Monitoring, Recording, and Reporting Requirements A-9

3.1 Representative Sampling A-9
3.2 Reporting of Monitoring Results A-9
3.3 Additional Monitoring by Permittee A-9
3.4 Twenty-four Hour Reporting A-9
3.5 Other Noncompliance Reporting A-10

4.0 Penalties for Violations of Permit Conditions A-10

4.1 Civil Action A-10
4.2 Injunctive Relief A-11
4.3 Criminal Action A-11
4.4 Other Fines A-11

Appendix A of the permit contains standard regulatory language that must be included in all APDES permits. These requirements are based on the regulations and cannot be challenged in the context of an individual APDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements. Appendix A, Standard Conditions is an integral and enforceable part of the permit. Failure to comply with a Standard Condition in this Appendix constitutes a violation of the permit and is subject to enforcement.

1.0 Standard Conditions Applicable to All Permits

1.1 Contact Information and Addresses

1.1.1 Permitting Program

Documents, reports, and plans required under the permit and Appendix A are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone (907) 269-6285
Fax (907) 269-3487
Email: DEC.Water.WQPermit@alaska.gov

1.1.2 Compliance and Enforcement Program

Documents and reports required under the permit and Appendix A relating to compliance are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Compliance and Enforcement Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone Nationwide (877) 569-4114
Anchorage Area / International (907) 269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov

1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

1.3 Duty to Reapply

If a permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. In accordance with 18 AAC 83.105(b), a permittee with a currently effective permit shall reapply by submitting a new application at least 180 days before the existing permit expires, unless the Department has granted the permittee permission to submit an application on a later date. However, the Department will not grant permission for an application to be submitted after the expiration date of the existing permit.

1.4 Need to Halt or Reduce Activity Not a Defense

In an enforcement action, a permittee may not assert as a defense that compliance with the conditions of the permit would have made it necessary for the permittee to halt or reduce the permitted activity.

1.5 Duty to Mitigate

A permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

1.6 Proper Operation and Maintenance

1.6.1 A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances that the permittee installs or uses to achieve compliance with the conditions of the permit. The permittee's duty to operate and maintain properly includes using adequate laboratory controls and appropriate quality assurance procedures. However, a permittee is not required to operate back-up or auxiliary facilities or similar systems that a permittee installs unless operation of those facilities is necessary to achieve compliance with the conditions of the permit.

1.6.2 Operation and maintenance records shall be retained and made available at the site.

1.7 Permit Actions

A permit may be modified, revoked and reissued, or terminated for cause as provided in 18 AAC 83.130. If a permittee files a request to modify, revoke and reissue, or terminate a permit, or gives notice of planned changes or anticipated noncompliance, the filing or notice does not stay any permit condition.

1.8 Property Rights

A permit does not convey any property rights or exclusive privilege.

1.9 Duty to Provide Information

A permittee shall, within a reasonable time, provide to the Department any information that the Department requests to determine whether a permittee is in compliance with the permit, or whether cause exists to modify, revoke and reissue, or terminate the permit. A permittee shall also provide to the Department, upon request, copies of any records the permittee is required to keep under the permit.

1.10 Inspection and Entry

A permittee shall allow the Department, or an authorized representative, including a contractor acting as a representative of the Department, at reasonable times and on presentation of credentials establishing authority and any other documents required by law, to:

1.10.1 Enter the premises where a permittee's regulated facility or activity is located or conducted, or where permit conditions require records to be kept;

1.10.2 Have access to and copy any records that permit conditions require the permittee to keep;

1.10.3 Inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and

1.10.4 Sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

1.11 Monitoring and Records

A permittee must comply with the following monitoring and recordkeeping conditions:

1.11.1 Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

1.11.2 The permittee shall retain records in Alaska of all monitoring information for at least three years, or longer at the Department's request at any time, from the date of the sample, measurement, report, or application. Monitoring records required to be kept include:

1.11.2.1 All calibration and maintenance records,

1.11.2.2 All original strip chart recordings or other forms of data approved by the Department for continuous monitoring instrumentation,

1.11.2.3 All reports required by a permit,

1.11.2.4 Records of all data used to complete the application for a permit,

1.11.2.5 Field logbooks or visual monitoring logbooks,

1.11.2.6 Quality assurance chain of custody forms,

1.11.2.7 Copies of discharge monitoring reports, and

1.11.2.8 A copy of this APDES permit.

1.11.3 Records of monitoring information must include:

1.11.3.1 The date, exact place, and time of any sampling or measurement;

1.11.3.2 The name(s) of any individual(s) who performed the sampling or measurement(s);

1.11.3.3 The date(s) and time any analysis was performed;

1.11.3.4 The name(s) of any individual(s) who performed any analysis;

1.11.3.5 Any analytical technique or method used; and

1.11.3.6 The results of the analysis.

1.11.4 Monitoring Procedures

Analyses of pollutants must be conducted using test procedures approved under 40 CFR Part 136, adopted by reference at 18 AAC 83.010, for pollutants with approved test procedures, and using test procedures specified in the permit for pollutants without approved methods.

1.12 Signature Requirement and Penalties

1.12.1 Any application, report, or information submitted to the Department in compliance with a permit requirement must be signed and certified in accordance with 18 AAC 83.385. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under a permit, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be subject to penalties under 33 U.S.C. 1319(c)(4), AS 12.55.035(c)(1)(B), (c)(2) and (c)(3), and AS 46.03.790(g).

1.12.2 In accordance with 18 AAC 83.385, an APDES permit application must be signed as follows:

1.12.2.1 For a corporation, a responsible corporate officer shall sign the application; in this subsection, a responsible corporate officer means:

1.12.2.1.1 A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

1.12.2.1.2 The manager of one of more manufacturing, production, or operating facilities, if

1.12.2.1.2.1 The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;

1.12.2.1.2.2 The manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and

1.12.2.1.2.3 Authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

1.12.2.2 For a partnership or sole proprietorship, by the general partner or the proprietor, respectively, shall sign the application.

1.12.2.3 For a municipality, state, federal, or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means:

1.12.2.3.1 The chief executive officer of the agency; or

1.12.2.3.2 A senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

1.12.3 Any report required by an APDES permit, and a submittal with any other information requested by the Department, must be signed by a person described in Appendix A, Part 1.12.2, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1.12.3.1 The authorization is made in writing by a person described in Appendix A, Part 1.12.2;

1.12.3.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, including the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility; or an individual or position having overall responsibility for environmental matters for the company; and

1.12.3.3 The written authorization is submitted to the Department to the Permitting Program address in Appendix A, Part 1.1.1.

1.12.4 If an authorization under Appendix A, Part 1.12.3 is no longer effective because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Appendix A, Part 1.12.3 must be submitted to the Department before or together with any report, information, or application to be signed by an authorized representative.

1.12.5 Any person signing a document under Appendix A, Part 1.12.2 or Part 1.12.3 shall certify as follows:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1.13 Proprietary or Confidential Information

1.13.1 A permit applicant or permittee may assert a claim of confidentiality for proprietary or confidential business information by stamping the words “confidential business information” on each page of a submission containing proprietary or confidential business information. The Department will treat the stamped submissions as confidential if the information satisfies the test in 40 CFR §2.208, adopted by reference at 18 AAC 83.010, and is not otherwise required to be made public by state law.

1.13.2 A claim of confidentiality under Appendix A, Part 1.13.1 may not be asserted for the name and address of any permit applicant or permittee, a permit application, a permit, effluent data, sewage sludge data, and information required by APDES or NPDES application forms provided by the Department, whether submitted on the forms themselves or in any attachments used to supply information required by the forms.

1.13.3 A permittee’s claim of confidentiality authorized under Appendix A, Part 1.13.1 is not waived if the Department provides the proprietary or confidential business information to the EPA or to other agencies participating in the permitting process. The Department will supply any information obtained or used in the administration of the state APDES program to the EPA upon request under 40 CFR §123.41, as revised as of July 1, 2005. When providing information submitted to the Department with a claim of confidentiality to the EPA, the Department will notify the EPA of the confidentiality claim. If the Department provides the EPA information that is not claimed to be confidential, the EPA may make the information available to the public without further notice.

1.14 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any action or relieve a permittee

from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under state laws addressing oil and hazardous substances.

1.15 Cultural and Paleontological Resources

If cultural or paleontological resources are discovered because of this disposal activity, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://www.dnr.state.ak.us/parks/oha/), is to be notified immediately at (907) 269-8721.

1.16 Fee

A permittee must pay the appropriate permit fee described in 18 AAC 72.

1.17 Other Legal Obligations

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the Department or from other local, state, or federal agencies and to comply with the requirements contained in any such permits. All activities conducted and all plan approvals implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

2.0 Special Reporting Obligations

2.1 Planned Changes

2.1.1 The permittee shall give notice to the Department as soon as possible of any planned physical alteration or addition to the permitted facility if:

2.1.1.1 The alteration or addition may make the facility a “new source” under one or more of the criteria in 18 AAC 83.990(44); or

2.1.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged if those pollutants are not subject to effluent limitations in the permit or to notification requirements under 18 AAC 83.610.

2.1.2 If the proposed changes are subject to plan review, then the plans must be submitted at least 30 days before implementation of changes (see 18 AAC 15.020 and 18 AAC 72 for plan review requirements). Written approval is not required for an emergency repair or routine maintenance.

2.1.3 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.2 Anticipated Noncompliance

2.2.1 A permittee shall give seven days’ notice to the Department before commencing any planned change in the permitted facility or activity that may result in noncompliance with permit requirements.

2.2.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.3 Transfers

2.3.1 A permittee may not transfer a permit for a facility or activity to any person except after notice to the Department in accordance with 18 AAC 83.150. The Department may modify or revoke and reissue the permit to change the name of the permittee and incorporate such other requirements under 33 U.S.C. 1251-1387 (Clean Water Act) or state law.

2.3.2 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.4 Compliance Schedules

2.4.1 A permittee must submit progress or compliance reports on interim and final requirements in any compliance schedule of a permit no later than 14 days following the scheduled date of each requirement.

2.4.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.5 Corrective Information

2.5.1 If a permittee becomes aware that it failed to submit a relevant fact in a permit application or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit the relevant fact or the correct information.

2.5.2 Information must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.6 Bypass of Treatment Facilities

2.6.1 Prohibition of Bypass

Bypass is prohibited. The Department may take enforcement action against a permittee for any bypass, unless:

2.6.1.1 The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2.6.1.2 There were no feasible alternatives to the bypass, including use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. However, this condition is not satisfied if the permittee, in the exercise of reasonable engineering judgment, should have installed adequate back-up equipment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

2.6.1.3 The permittee provides notice to the Department of a bypass event in the manner, as appropriate, under Appendix A, Part 2.6.2.

2.6.2 Notice of bypass

2.6.2.1 For an anticipated bypass, the permittee submits notice at least 10 days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions of Appendix A, Parts 2.6.1.1 and 2.6.1.2.

2.6.2.2 For an unanticipated bypass, the permittee submits 24-hour notice, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting.

2.6.2.3 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.6.3 Notwithstanding Appendix A, Part 2.6.1, a permittee may allow a bypass that:

2.6.3.1 Does not cause an effluent limitation to be exceeded, and

2.6.3.2 Is for essential maintenance to assure efficient operation.

2.7 Upset Conditions

2.7.1 In any enforcement action for noncompliance with technology-based permit effluent limitations, a permittee may claim upset as an affirmative defense. A permittee seeking to establish the occurrence of an upset has the burden of proof to show that the requirements of Appendix A, Part 2.7.2 are met.

2.7.2 To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

2.7.2.1 An upset occurred and the permittee can identify the cause or causes of the upset;

2.7.2.2 The permitted facility was at the time being properly operated;

2.7.2.3 The permittee submitted 24-hour notice of the upset, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting; and

2.7.2.4 The permittee complied with any mitigation measures required under 18 AAC 83.405(e) and Appendix A, Part 1.5, Duty to Mitigate.

2.7.3 Any determination made in administrative review of a claim that noncompliance was caused by upset, before an action for noncompliance is commenced, is not final administrative action subject to judicial review.

2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges

2.8.1 In addition to the reporting requirements under 18 AAC 83.410, an existing manufacturing, commercial, mining, and silvicultural discharger shall notify the Department as soon as that discharger knows or has reason to believe that any activity has occurred or will occur that would result in:

2.8.1.1 The discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.1.1 One hundred micrograms per liter (100 µg/L);

2.8.1.1.2 Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, 500 micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol, and one milligram per liter (1 mg/L) for antimony;

2.8.1.1.3 Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.1.4 The level established by the Department in accordance with 18 AAC 83.445.

2.8.1.2 Any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.2.1 Five hundred micrograms per liter (500 µg/L);

2.8.1.2.2 One milligram per liter (1 mg/L) for antimony;

2.8.1.2.3 Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.2.4 The level established by the Department in accordance with 18 AAC 83.445.

3.0 Monitoring, Recording, and Reporting Requirements

3.1 Representative Sampling

A permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into the receiving waters. Samples and measurements must be representative of the volume and nature of the monitored activity or discharge.

3.2 Reporting of Monitoring Results

The permittee shall summarize monitoring results on the annual report form or approved equivalent. The permittee shall submit its annual report at the interval specified in the permit. The permittee shall sign and certify all annual reports and other reports in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirement and Penalties. The permittee shall submit the legible originals of these documents to the ADEC Compliance and Enforcement Program at the address in Appendix A, Part 1.1.2.

3.3 Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring must be included in the calculation and reporting of the data submitted in the DMR or annual report required by Appendix A, Part 3.2. All limitations that require averaging of measurements must be calculated using an arithmetic means unless the Department specifies another method in the permit. Upon request by the Department, the permittee must submit the results of any other sampling and monitoring regardless of the test method used.

3.4 Twenty-four Hour Reporting

A permittee shall report any noncompliance event that may endanger health or the environment as follows:

3.4.1 A report must be made:

3.4.1.1 Orally within 24 hours after the permittee becomes aware of the circumstances, and

3.4.1.2 In writing within five days after the permittee becomes aware of the circumstances.

3.4.2 A report must include the following information:

3.4.2.1 A description of the noncompliance and its causes, including the estimated volume or weight and specific details of the noncompliance;

3.4.2.2 The period of noncompliance, including exact dates and times;

3.4.2.3 If the noncompliance has not been corrected, a statement regarding the anticipated time the noncompliance is expected to continue; and

3.4.2.4 Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3.4.3 An event that must be reported within 24 hours includes:

3.4.3.1 An unanticipated bypass that exceeds any effluent limitation in the permit (see Appendix A, Part 2.6, Bypass of Treatment Facilities).

3.4.3.2 An upset that exceeds any effluent limitation in the permit (see Appendix A, Part 2.7, Upset Conditions).

3.4.3.3 A violation of a maximum daily discharge limitation for any of the pollutants listed in the permit as requiring 24-hour reporting.

3.4.4 The Department may waive the written report on a case-by-case basis for reports under Appendix A, Part 3.4 if the oral report has been received within 24 hours of the permittee becoming aware of the noncompliance event.

3.4.5 The permittee may satisfy the written reporting submission requirements of Appendix A, Part 3.4 by submitting the written report via e-mail, if the following conditions are met:

3.4.5.1 The Noncompliance Notification Form or equivalent form is used to report the noncompliance;

3.4.5.2 The written report includes all the information required under Appendix A, Part 3.4.2;

3.4.5.3 The written report is properly certified and signed in accordance with Appendix A, Parts 1.12.3 and 1.12.5.;

3.4.5.4 The written report is scanned as a PDF (portable document format) document and transmitted to the Department as an attachment to the e-mail; and

3.4.5.5 The permittee retains in the facility file the original signed and certified written report and a printed copy of the conveying email.

3.4.6 The e-mail and PDF written report will satisfy the written report submission requirements of this permit provided the e-mail is received by the Department within five days after the time the permittee becomes aware of the noncompliance event and the e-mail and written report satisfy the criteria of Part 3.4.5. The e-mail address to report noncompliance is: dec-wqreporting@alaska.gov

3.5 Other Noncompliance Reporting

A permittee shall report all instances of noncompliance not required to be reported under Appendix A, Parts 2.4 (Compliance Schedules), 3.3 (Additional Monitoring by Permittee), and 3.4 (Twenty-four Hour Reporting) at the time the permittee submits monitoring reports under Appendix A, Part 3.2. (Reporting of Monitoring Results). A report of noncompliance under this part must contain the information listed in Appendix A, Part 3.4.2 and be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

4.0 Penalties for Violations of Permit Conditions

Alaska laws allow the State to pursue both civil and criminal actions concurrently. The following is a summary of Alaska law. Permittees should read the applicable statutes for further substantive and procedural details.

4.1 Civil Action

Under AS 46.03.760(e), a person who violates or causes or permits to be violated a regulation, a lawful

order of the Department, or a permit, approval, or acceptance, or term or condition of a permit, approval or acceptance issued under the program authorized by AS 46.03.020 (12) is liable, in a civil action, to the State for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than $10,000 for each day after that on which the violation continues, and that shall reflect, when applicable:

4.1.1 Reasonable compensation in the nature of liquated damages for any adverse environmental effects caused by the violation, that shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

4.1.2 Reasonable costs incurred by the State in detection, investigation, and attempted correction of the violation;

4.1.3 The economic savings realized by the person in not complying with the requirements for which a violation is charged; and

4.1.4 The need for an enhanced civil penalty to deter future noncompliance.

4.2 Injunctive Relief

4.2.1 Under AS 46.03.820, the Department can order an activity presenting an imminent or present danger to public health or that would be likely to result in irreversible damage to the environment be discontinued. Upon receipt of such an order, the activity must be immediately discontinued.

4.2.2 Under AS 46.03.765, the Department can bring an action in Alaska Superior Court seeking to enjoin ongoing or threatened violations for Department-issued permits and Department statutes and regulations.

4.3 Criminal Action

Under AS 46.03.790(h), a person is guilty of a Class A misdemeanor if the person negligently:

4.3.1 Violates a regulation adopted by the Department under AS 46.03.020(12);

4.3.2 Violates a permit issued under the program authorized by AS 46.03.020(12);

4.3.3 Fails to provide information or provides false information required by a regulation adopted under AS 46.03.020(12);

4.3.4 Makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with a permit issued under or a regulation adopted under AS 46.03.020(12); or

4.3.5 Renders inaccurate a monitoring device or method required to be maintained by a permit issued or under a regulation adopted under AS 46.03.020(12).

4.4 Other Fines

Upon conviction of a violation of a regulation adopted under AS 46.03.020(12), a defendant who is not an organization may be sentenced to pay a fine of not more than $10,000 for each separate violation (AS 46.03.790(g)). A defendant that is an organization may be sentenced to pay a fine not exceeding the greater of: (1) $200,00; (2) three times the pecuniary gain realized by the defendant as a result of the offense; or (3) three times the pecuniary damage or loss caused by the defendant to another, or the property of another, as a result of the offense (AS 12.55.035(c)(B), (c)(2), and (c)(3)).

APPENDIX - B: Acronyms (for the purposes of this permit)

Abbreviations	Nomenclature
AAC	Alaska Administrative Code
ACGP	Alaska Construction General Permit
ADOT&PF	Alaska Department of Transportation and Public Facilities
AK-CESCL	Alaska-Certified Erosion and Sediment Control Lead
APDES	Alaska Pollutant Discharge Elimination System
AS	Alaska Statute
BMP	Best Management Practice
CAG	Community Advisory Group
CAM	Construction Activity Manual
C&D	Construction and Development
CGP	Construction General Permit
CFR	Code of Federal Regulations
CWA	Clean Water Act
DEC	Alaska Department of Environmental Conservation
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
EFH	Essential Fish Habitat
EISA	Energy Independence and Security Act
ELG	Effluent Limitation Guideline
EPA	United States Environmental Protection Agency
ESCP	Erosion and Sediment Control Plan
LID	Low Impact Development
MOA	Municipality of Anchorage
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
NMFS	United States National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units

Abbreviations	Nomenclature
NURP	Nationwide Urban Runoff Program
PCAM	Post-Construction Activity Manual
POA	Port of Anchorage
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
SCM	Storm Water Control Measure
SPCC	Spill Prevention, Control, and Countermeasure
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service
WQS	Water Quality Standard

APPENDIX - C: Definitions (for the purposes of this permit)

Word or Phrase	Definition
Animal facility	See "commercial animal facility"
Best Management Practice or BMP	Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR § 122.2. BMP refers to operational activities, physical controls or educational measures that are applied to reduce the discharge of pollutants and minimize potential impacts upon receiving waters, and accordingly, refers to both structural and nonstructural practices that have direct impacts on the release, transport, or discharge of pollutants. See also "storm water control measure (SCM)."
Bioretention	For the purposes of this permit, means the water quality and water quantity storm water management practice using the chemical, biological and physical properties of plants, microbes and soils for the removal of pollution from storm water runoff.
Canopy Interception	For the purposes of this permit, means the interception of precipitation, by leaves and branches of trees and vegetation that does not reach the soil.
Common Plan of Development	For the purposes of this permit, means a contiguous construction project where multiple separate and distinct construction activities may be taking place at different times on different schedules but under one plan. The "plan" is broadly defined as any announcement or piece of documentation or physical demarcation indicating construction activities may occur on a specific plot; included in this definition are most subdivisions and industrial parks.

Word or Phrase	Definition
Commercial Animal Facility	For the purposes of this permit, means a person or facility that boards or grooms dogs, cats, rabbits, ferrets, and/or horses for fees or services, or any person or facility that reconveys four or more cats in a calendar year, or any person or facility that breeds more than three litters of cats or dogs in a calendar year. See AMC Title 17.
Construction activity	For the purposes of this permit, includes, but not limited to, clearing, grading, excavation, and other site preparation work related to construction of residential buildings and non-residential buildings, and heavy construction (e.g., highways, streets, bridges, tunnels, pipelines, transmission lines and industrial non-building structures).
Construction General Permit	Means the current version of DEC's general permit No. AKR10-0000
Control Measure	For the purposes of this permit, means any action, activity, Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.
Clean Water Act	Means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500 as amended by Pub.L 95-217, Pub.L 95-576, Pub.L. 96-483 and Pub.L. 97-117, 33 U.S.C. 1251 et seq.
Director	Means the DEC Director of the Division of Water
Discharge	When used without a qualifier, refers to "discharge of a pollutant" as defined at 40 CFR §122.2.

Word or Phrase	Definition
Discharge of a pollutant	For the purposes of this permit, means (a) any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or (b) any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The definition includes additions of pollutants into waters of the United States from; surface runoff which is collected or channeled by man, discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."
Discharge of Storm Water Associated with Construction Activity	For the purposes of this permit, refers to a discharge of pollutants in storm water runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavation), construction materials or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling) or other industrial storm water directly related to the construction process are located. (See 40 CFR §122.26(b)(14)(x) and 40 CFR §122.26(b)(15) for the two regulatory definitions of storm water associated with construction sites.)
Discharge of Storm Water Associated with Industrial Activity	Is defined at 40 CFR § 122.26(b)(14)
Discharge-related Activities	For the purposes of this permit include: activities which cause, contribute to, or result in storm water point source pollutant discharges and measures to control storm water discharges, including the siting, construction, and operation of best management practices to control, reduce or prevent storm water pollution.
Discharge Monitoring Report	Means the DEC uniform form, including any subsequent additions, revisions or modification for the reporting of self-monitoring results by permittees.

Word or Phrase	Definition
Disconnect	For the purposes of this permit, means the change from a direct discharge into receiving waters to one in which the discharged water flows across a vegetated surface, through a constructed water or wetlands feature, through a vegetated swale, or other attenuation or infiltration device before reaching the receiving water.
Engineered infiltration	For the purposes of this permit, means an underground device or system designed to accept storm water and slowly exfiltrates it into the underlying soil. This device or system is designed based on soil tests that define the infiltration rate.
Entity	Means a governmental body or a public or private organization.
Erosion	Means the process of carrying away soil particles by the action of wind or water.
Evaporation	Means rainfall that is changed or converted into a vapor.
Evapotranspiration	Means the sum of evaporation and transpiration of water from the earth's surface to the atmosphere. It includes evaporation of liquid or solid water plus the transpiration from plants.
Extended filtration	For the purposes of this permit, means a structural storm water device which filters storm water runoff through a soil media and collects it an underdrain which slowly releases it after the storm is over.
Facility or Activity	Means any NPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES or APDES program.
Green infrastructure	For the purposes of this permit, means runoff management approaches and technologies that utilize, enhance and/or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration and reuse.
Hydromodification	Means changes to the storm water runoff characteristics of a watershed caused by changes in land use.
Illicit Connection	Means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Word or Phrase	Definition
Illicit Discharge	Defined at 40 CFR §122.26(b)(2) and refers to any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire-fighting activities.
Impaired Water(s)	For purposes of this permit means any waterbody identified by the State of Alaska or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards. Impaired waters include both waters with approved or established Total Maximum Daily Loads (TMDLs), and those for which a TMDL has not yet been approved or established.
Industrial Activity	For the purposes of this permit, refers to the eleven categories of industrial activities included in the definition of discharges of storm water associated with industrial activity at 40 CFR§ 122.26(b)(14).
Industrial Storm Water	For the purposes of this permit, refers to storm water runoff associated with the definition of discharges of storm water associated with industrial activity.
Infiltration	Means the process by which storm water penetrates into soil.
Low Impact Development	For the purposes of this permit, means storm water management and land development strategies applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small scale hydrologic controls to more closely mimic pre-development hydrologic functions.
Major Outfall	Is defined in 40 CFR §122.26(b)(5) and in general, means a municipal storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more.
Maximum Extent Practicable	Means the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges that was established by CWA §402(p). A discussion of MEP as it applies to small MS4s is found at 40 CFR §122.34.
Measurable Goal	Means a quantitative measure of progress in implementing a component of the storm water management program.

Word or Phrase	Definition
Minimize	For the purposes of this permit, means to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.
Municipal Separate Storm Sewer System	Is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System. The term, as used within the context of this permit, refers to small MS4s (see definition below) and includes systems operated by a variety of public entities (e.g., military facilities, prisons, and systems operated by other levels of government).
Municipality	Means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA.
Municipal Separate Storm Sewer	Means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

Word or Phrase	Definition
National Pollutant Discharge Elimination System	Means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318 and 405 of the CWA. The term includes an approved program
Outfall	For the purposes of this permit, means a point source (defined below) at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.
Owner or Operator	Means the owner or operator of any facility or activity subject to regulation under the NPDES program.
Permitting Authority	Means the Alaska Department of Environmental Conservation
Point Source	Means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.
Pollutant	Defined at 40 CFR ' 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.
Pollutant(s) of concern	Means any pollutant identified as a cause of impairment of any water body that will receive a discharge from a MS4 authorized under this permit.

Word or Phrase	Definition
Post-construction storm water management controls or permanent storm water management controls	Means those controls designed to treat or control runoff on a permanent basis once construction is complete.
Rainfall and Rainwater Harvesting	For the purposes of this permit, means the collection, conveyance, and storage of rainwater. The scope, method, technologies, system complexity, purpose, and end uses vary from rain barrels for garden irrigation in urban areas, to large-scale collection of rainwater for all domestic uses.
Redevelopment	For the purposes of this permit, means the alteration, renewal or restoration of any developed land or property that results in the land disturbance of 10,000 square feet or more, and that has one of the following characteristics: land that currently has an existing structure, such as buildings or houses; or land that is currently covered with an impervious surface, such as a parking lot or roof; or land that is currently degraded and is covered with sand, gravel, stones, or other non-vegetative covering.
Repair of Public Streets, Roads and Parking Lots	For the purposes of this permit, means repair work on permittee-owned or permittee-managed streets and parking lots that involves land disturbance including asphalt removal or regrading of 5,000 square feet or more. This definition excludes the following activities: pot hole and square cut patching; overlaying existing asphalt or concrete pacing with asphalt or concrete without expanding the area of coverage; shoulder grading; reshaping or regrading drainage ditches; crack or chip sealing; and vegetative maintenance.
Runoff Reduction Techniques	Means the collective assortment of storm water practices that reduce the volume of storm water from discharging off site.
Sewershed	Means, for the purposes of this permit, all the land area that is drained by a network of municipal storm sewer system conveyances to a single point of discharge to a water of the United States.
Significant Contributors of Pollutants	Means any discharge that causes or could cause or contribute to a violation of surface water quality standards.

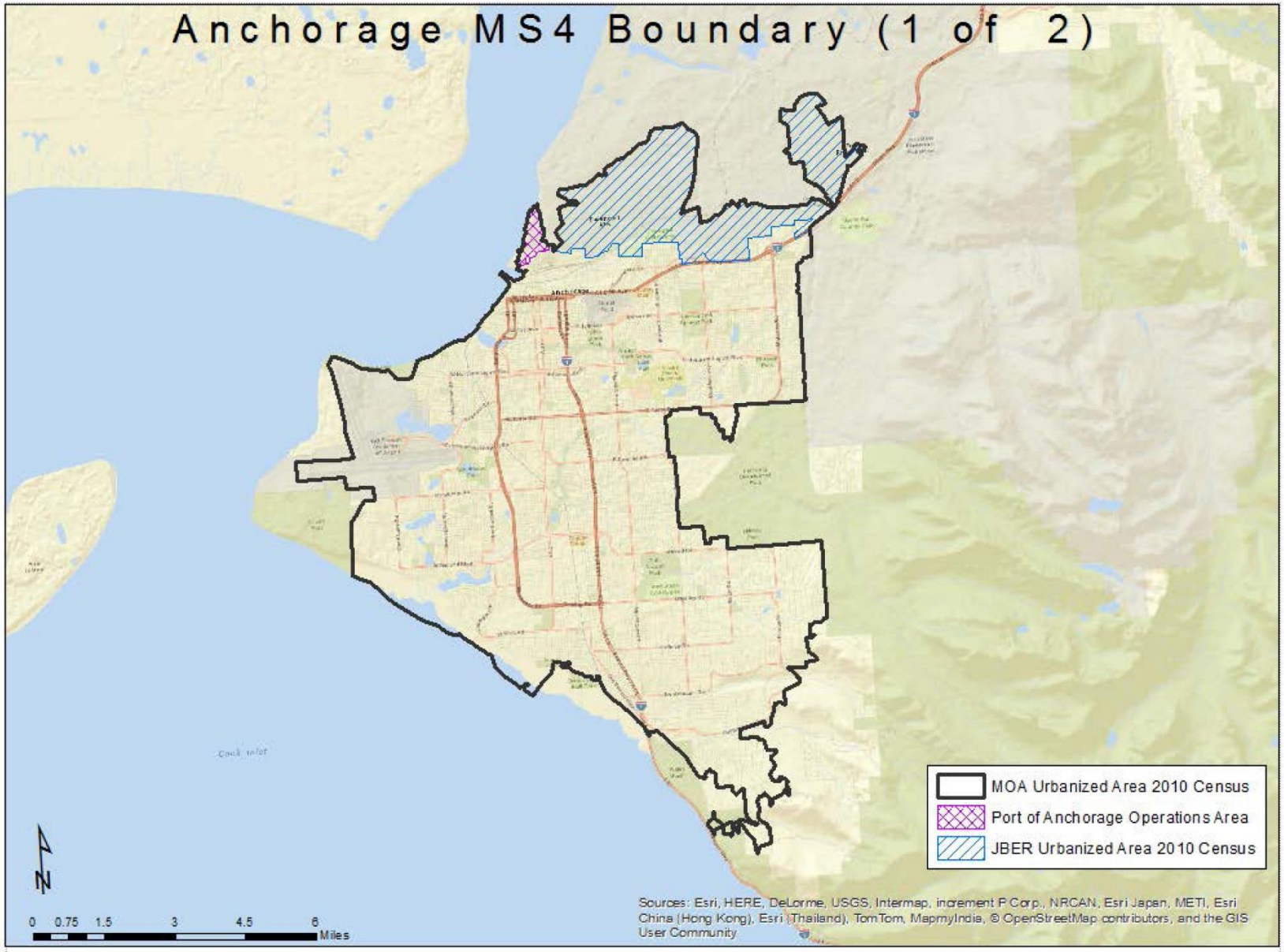
Word or Phrase	Definition
Small Municipal Separate Storm Sewer System	Is defined at 40 CFR §122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, A state, city, town, borough, county, parish, district association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States, but is not defined as large or medium municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas such as individual buildings.
Snow Management	Means the plowing, relocation and collection of snow.
Soil Amendments	Means components added to in situ or native soils to increase the spacing between soil particles so that the soil can absorb and hold more moisture. The amendment of soils changes various other physical, chemical and biological characteristics so that the soils become more effective in maintaining water quality.
Source Control	Means practices that control storm water *before* pollutants have been introduced into storm water
Storm Event or Measurable Storm Event	For the purposes of this permit, means a precipitation event that results in an actual discharge from the outfall and which follows the preceding measurable storm event by at least 48 hours (2 days).
Storm Water	Is defined at 40 CFR §122.26(b)(13) and means storm water runoff, snow melt runoff, and surface runoff and drainage.

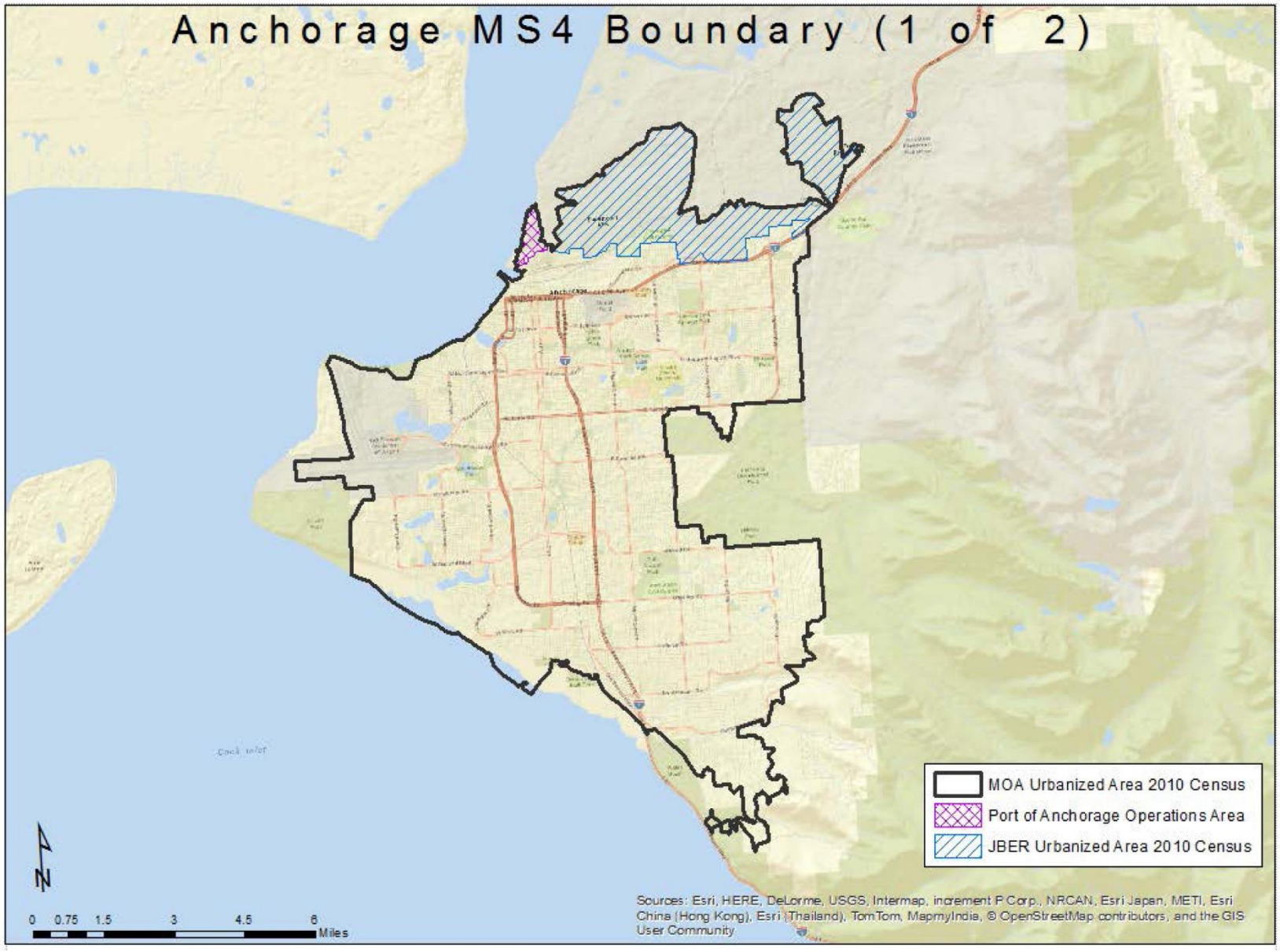
Word or Phrase	Definition
Storm Water Control Measure (SCM)	Means physical, structural, and/or managerial measures that, when used singly or in combination, reduce the downstream quality and quantity impacts of stormwater. Also, SCM means a permit condition used in place of or in conjunction with effluent limitations to prevent or control the discharge of pollutants. This may include a schedule of activities, prohibition of practices, maintenance procedures, or other management practices. SCMs may include, but are not limited to, treatment requirements; operating procedures; practices to control plant site runoff, spillage, leaks, sludge, or waste disposal; or drainage from raw material storage. See "best management practices (BMPs)."
Storm Water Facility	Means a constructed component of a stormwater drainage system, designed or constructed to perform a particular function or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment basins, and modular pavement.
Storm Water Management Program (SWMP)	Refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system. For the purposes of this permit, the SWMP consists of the actions and activities conducted by the permittees during the previous permit term (as documented in Annual Reports submitted to DEC) and the specific requirements contained in this permit and subsequently documented by the permittees as required by this permit.
Storm Water Pollution Prevention Plan (SWPPP)	Means a site specific plan designed to describe the control of soil or other materials to prevent pollutants in storm water runoff, generally developed for a construction site, or an industrial facility. For the purposes of this permit, a SWPPP means a written document that identifies potential sources of pollution, describes practices to reduce pollutants in storm water discharges from the site, and identifies procedures that the operator will implement to comply with applicable permit requirements.
Total Maximum Daily Load	An analysis of pollutant loading to a body of water detailing the sum of the individual waste load allocations for point sources and load allocations for non-point sources and natural background. See 40 CFR §130.2.
Treatment Control	Means practices that "treat" storm water after pollutants have been incorporated into the storm water.

Word or Phrase	Definition
Visually Clean	Means, for the purposes of this permit, a qualitative evaluation of street sweeping effectiveness. The evaluation is carried out by trained street maintenance personnel as he or she walks adjacent to the swept roadway or gutter and makes a visually scan of the roadway and gutter. During the visual scan the evaluator estimates the percent cover and thickness of coarse solids (>75µm) and fine solids (<75µm) remaining on the roadway or gutter. Sweeping activities on any road or parking lot surface will continue until pavement and gutter sections are free of coarse solids and visually clear of fine solids. When coarse and fine solids are no longer visible to the inspector viewing the pavement section, the pavement and gutter is regarded as visually clean.
Waters of the United States	Has the meaning given in 40 CFR §1222.22
Watershed	Is defined as all the land area that is drained by a waterbody and its tributaries.
Wetlands	Means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

APPENDIX - D: Summary Annual Report

APPENDIX - E: Map (Approximate Boundary)




Anchorage MS4 Boundary (1 of 2)
MOA Urbanized Area 2010 Census
Port of Anchorage Operations Area
JBER Urbanized Area 2010 Census
N
0 0.75 1.5 3 4.5 6
Miles
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM
MS4 – Summary Annual Report Form

1. MS4 Information

Permit Number _____ Name of MS4 _____

Name of Contact Person (First) _____ (Last) _____ (Title) _____

Telephone (including area code) _____ Email _____

Mailing Address _____

City _____ State Alaska Zip Code _____

What size population does your MS4 serve? _____

What is the reporting period for this report? (mm/dd/yyyy) From _____ to _____

2. Water Quality Priorities

A. Does your MS4 discharge to waters listed as impaired on a state 303(d) list? ☐ Yes ☐ No

B. If yes, identify each impaired water, the impairment, whether a TMDL has been approved by EPA for each, and whether the TMDL assigns a wasteload allocation to your MS4. Use a new line for each impairment, and attach additional pages as necessary.

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No

C. What specific sources contributing to the impairment(s) are you targeting in your storm water program? _____

D. Do you discharge to any high-quality waters (e.g., Tier 2, Tier 3, outstanding natural resource waters, or other state or federal designation)? ☐ Yes ☐ No

E. Are you implementing additional specific provisions to ensure their continued integrity? ☐ Yes ☐ No

3. Public Education and Public Participation

A. Is your public education program targeting specific pollutants and sources of those pollutants? ☐ Yes ☐ No

B. If yes, what are the specific sources and/or pollutants addressed by your public education program?

_____

C. Note specific successful outcome(s) (e.g., quantified reduction in fertilizer use; NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period.

_____

D. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your storm water program? ☐ Yes ☐ No

4. Construction

A. Do you have an ordinance or other regulatory mechanism stipulating:

- Erosion and sediment control requirements? ☐ Yes ☐ No
- Other construction waste control requirements? ☐ Yes ☐ No
- Requirement to submit construction plans for review? ☐ Yes ☐ No
- MS4 enforcement authority? ☐ Yes ☐ No

B. Do you have written procedures for:

- Reviewing construction plans? ☐ Yes ☐ No
- Performing inspections? ☐ Yes ☐ No
- Responding to violations? ☐ Yes ☐ No

C. Identify the total number of active construction sites ≥ 1 acre in operation in your jurisdiction during the reporting period. _____

D. How many of the sites identified in 4.C did you inspect during this reporting period? _____

E. Describe, on average, the frequency with which your program conducts construction site inspections.

_____

F. Do you prioritize certain construction sites for more frequent inspections? ☐ Yes ☐ No
If Yes, based on what criteria?

_____

G. Identify which of the following types of enforcement actions you used during the reporting period for construction activities, indicate the number of actions, or note those for which you do not have authority:

☐ Yes	Notice Of Violation	# _____	No Authority	☐
☐ Yes	Administrative Fines	# _____	No Authority	☐
☐ Yes	Stop Work Orders	# _____	No Authority	☐
☐ Yes	Civil Penalties	# _____	No Authority	☐
☐ Yes	Criminal Actions	# _____	No Authority	☐
☐ Yes	Administrative Orders	# _____	No Authority	☐
☐ Yes	Other _____	# _____		

H. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions of active construction sites in your jurisdiction? ☐ Yes ☐ No

I. What are the 3 most common types of violations documented during this reporting period?
a. b. c.

J. How often do municipal employees receive training on the construction program? _____

5. Illicit Discharge Elimination

A. Have you completed a map of all outfalls and receiving waters of your storm sewer system? ☐ Yes ☐ No

B. Have you completed a map of all storm drain pipes and other conveyances in the storm sewer system? ☐ Yes ☐ No

C. Identify the number of outfalls in your storm sewer system. _____

D. Do you have documented procedures, including frequency, for screening outfalls? ☐ Yes ☐ No

E. Of the outfalls identified in 5.C, how many were screened for dry weather discharges during this reporting period? _____

F. Of the outfalls identified in 5.C, how many have been screened for dry weather discharges at any time since you obtained MS4 permit coverage? _____

G. What is your frequency for screening outfalls for illicit discharges? Describe any variation based on size/type.

_____

H. Do you have an ordinance or other regulatory mechanism that effectively prohibits illicit discharges? ☐ Yes ☐ No

I. Do you have an ordinance or other regulatory mechanism that provides authority for you to take enforcement action and/or recover costs for addressing illicit discharges? ☐ Yes ☐ No

J. During this reporting period, how many illicit discharges/illegal connections have you discovered? _____

K. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? _____

L. How often do municipal employees receive training on the illicit discharge program? _____

6. Storm Water Management for Municipal Operations

A. Have storm water pollution prevention plans (or an equivalent plan) been developed for:

All public parks, ball fields, other recreational facilities and other open spaces ☐ Yes ☐ No

All municipal fleet and building maintenance activities ☐ Yes ☐ No

All municipal construction activities, including those disturbing greater than 1 acre ☐ Yes ☐ No

All municipal storm water system maintenance ☐ Yes ☐ No

All municipal snow disposal site operation and maintenance activities ☐ Yes ☐ No

Other _____

B. Are storm water inspections conducted at these facilities? ☐ Yes ☐ No

C. If Yes, at what frequency are inspections conducted? _____

D. List activities for which operating procedures or management practices specific to storm water management have been developed (e.g., road repairs, catch basin cleaning).

_____

E. Do you prioritize certain municipal activities and/or facilities for more frequent inspection? ☐ Yes ☐ No

F. If Yes, which activities and/or facilities receive most frequent inspections? _____

G. Do all municipal employees and contractors overseeing planning and implementation of storm water-related activities receive comprehensive training on storm water management? ☐ Yes ☐ No

H. If yes, do you also provide regular updates and refreshers? ☐ Yes ☐ No

I. If so, how frequently and/or under what circumstances? _____

7. Long-term (Post-Construction) Storm Water Measures

A. Do you have an ordinance or other regulatory mechanism to require:

Site plan reviews for storm water/water quality of all new and re-development projects?	☐ Yes	☐ No
Long-term operation and maintenance of storm water management controls?	☐ Yes	☐ No
Retrofitting to incorporate long-term storm water management controls?	☐ Yes	☐ No

B. If you have retrofit requirements, what are the circumstances/criteria?

_____

C. What are your criteria for determining which new/re-development storm water plans you will review (e.g., all projects, projects disturbing greater than one acre, etc.)

_____

D. Do you require water quality or quantity design standards or performance standards, either directly or by reference to a state or other standard, be met for new development and re-development? ☐ Yes ☐ No

E. Do these performance or design standards require that pre-development hydrology be met for:

Flow volumes	☐ Yes	☐ No
Peak discharge rates	☐ Yes	☐ No
Discharge frequency	☐ Yes	☐ No
Flow duration	☐ Yes	☐ No

F. Please provide the URL/reference where all post-construction storm water management standards can be found.

_____

G. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection? _____

H. How many of the plans identified in 7.G were approved? _____

I. How many privately owned permanent storm water management practices/facilities were inspected during the reporting period? _____

J. How many of the practices/facilities identified in 7.I were found to have inadequate maintenance? _____

K. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections? _____

L. Do you have authority to take enforcement action for failure to properly operate and maintain storm water practices/facilities? ☐ Yes ☐ No

M. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate and/or maintain storm water management practices? _____

N. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? _____

O. Do all municipal departments and/or staff (as relevant) have access to this tracking system? ☐ Yes ☐ No

P. How often do municipal employees receive training on the post-construction program? _____

8. Additional Information

Please include any additional information on the performance of your MS4 program. If providing clarification to any of the questions on this form, please provide the question number (e.g., 2C) in your response.

Certification Statement and Signature

☐ Yes

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Per Appendix A, Part 1.12.2 This report to be signed as follows: **For a municipal, State, Federal, or other public facility**: by either a principal executive or ranking elected official; **for a corporation**, a responsible corporate officer.

Signature _____ Date _____

Signature _____ Date _____