

United States Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, Suite 900  
Seattle, Washington 98101

**Authorization to Discharge Under the  
National Pollutant Discharge Elimination System**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

**the Municipality of Anchorage and  
the Alaska Department of Transportation and Public Facilities  
(hereinafter "permittees")**

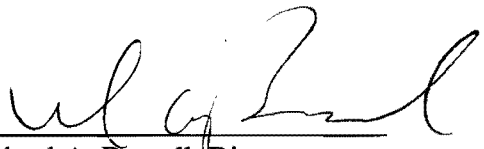
are authorized to discharge from all municipal separate storm sewer system (MS4) outfalls existing as of the effective date of this permit to receiving waters of the United States which include Cook Inlet, Eklutna River, Edmonds Creek, Mink Creek, Mirror Creek, Peters Creek, Fire Creek, Eagle River, 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 February 1, 2010.

This permit and the authorization to discharge shall expire at midnight, January 31, 2015.

The permittees shall reapply for permit reissuance on or before August 4, 2014, 180 days before the expiration of this permit, if the permittees intend to continue operations and discharges from the MS4s beyond the term of this permit.

Signed this 29<sup>th</sup> day of October 2009.

  
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Michael A. Bussell, Director  
Office of Water and Watersheds, Region 10  
U.S. Environmental Protection Agency

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## I. Applicability

**A. Permit Area.** This permit covers all areas within the corporate boundary of the Municipality of Anchorage served by the municipal separate storm sewer systems (MS4s) owned or operated by either the Municipality of Anchorage (MOA) or the Alaska Department of Transportation and Public Facilities (ADOT&PF).

**B. 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 Municipality of Anchorage 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 I.D, this permit also authorizes the discharge of flows from the MS4s which are categorized as allowable non-storm water discharge, storm water discharge associated with industrial activity, and storm water discharge associated with construction activity.

### C. Permittees' Responsibilities

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.
2. **Joint Responsibility.** Each permittee is jointly responsible for permit compliance:
  - a) 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;
  - b) related to portions of the MS4 where permittees jointly own or operate a portion of the MS4; and
  - c) related to the submission of reports or other documents required by Parts II and IV of this permit.
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 Alaska Department of Environmental Conservation (ADEC) within nine months of the effective date of this permit.
4. **Program Coordination Plan.** Not later than six months from the effective date of this permit, the permittees must develop and submit to ADEC a program plan describing the performance of activities defined in this permit. This plan must include, but is not limited to,

- a) A description of how the MOA Watershed Management Section and the ADOT&PF Maintenance & Operations Group 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
- b) 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.

#### **D. Limitations on Permit Coverage**

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:
  - a) The non-storm water discharges are in compliance with a separate NPDES permit;
  - b) The non-storm water discharges result from a spill and:
    - (i) 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
    - (ii) 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 prevent and minimize the impact of such discharges;

or

- c) The non-storm water discharges satisfy each of the following two conditions:
  - (i) 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

(ii) 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) 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;
  - 2) Contains oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters;
  - 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;
  - 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; or
  - 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.
  - 6) Causes or contributes to an exceedance of other applicable water quality standards.
2. **Discharges Threatening Water Quality.** Permittees are not authorized to discharge storm water that will cause, or have the potential to cause or contribute to, violations of the Alaska water quality standards.
  3. **Discharge Compliance with Anti-Degradation Policy.** Permittees are not authorized to discharge storm water that does not comply with Alaska's anti-degradation policy for water quality standards. Alaska's anti-degradation policy, 18 Alaska Administrative Code 70.015, can be obtained from ADEC at the address listed in Part IV.D.
  4. **Snow Disposal to Receiving Waters.** Permittees are not authorized to dispose of snow directly to waters of the United States or directly to the MS4(s). Discharges from the permittees' snow disposal sites and snow management practices are authorized under this permit only when such sites and practices are designed, operated, and maintained to prevent pollutants in storm water runoff and to reduce pollutants in the discharge to the maximum extent practicable.
  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 NPDES permit.

## II. Storm Water Management Program (SWMP) Requirements

### A. General Requirements

1. **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 maximum extent practicable (MEP), and to protect water quality in receiving waters. The SWMP actions and activities as defined in this permit include Best Management Practices (BMPs), control measures, system design, engineering methods, and other provisions appropriate to control and minimize discharges of pollutants from the MS4.
  - a) The SWMP actions and activities are outlined in Part II, and SWMP assessment/monitoring requirements are described in Part IV. 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 water quality standard.
2. **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:
  - a) The other entity, in fact, implements the requirement;
  - b) The action, or component thereof, is at least as stringent as the corresponding permit requirement; and
  - c) 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 IV.C of this permit. The permittees remain responsible for compliance with the permit obligation if the other entity fails to implement the required measure.
3. **Watershed Planning.** The permittees must complete at least two individual watershed plans for specific water bodies before the expiration date of this permit. The planning process must provide an opportunity for public input. Each plan must identify priority resources within the watershed, and potential opportunities for storm water infiltration, evapotranspiration or rainfall harvesting/reuse, or other site-based low impact development (LID) practices. Each watershed plan should include consideration and discussion of the following principles:
  - a) 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.

- b) 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.
- c) 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.
- d) Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.
- e) Preserve and protect trees, and other vegetation with important evapotranspirative qualities.
- f) Preserve and protect native soils, prevent topsoil stripping, and prevent compaction of soils.

**B. Minimum Control Measures.** The following minimum control measures must be accomplished through each permittees' Storm Water Management Program:

1. **Construction Site Runoff Control Program.** The permittees must 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:
  - a) **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 one year after the effective date of this permit, each permittee must adopt formal ordinances or other regulatory mechanisms that are consistent with this permit and the current version of the NPDES or APDES General Permit for Storm Water Discharges from Construction Activities, Permit #AKR10-0000 (NPDES or APDES Construction General Permit or CGP).
  - b) **Construction Storm Water Manual.** The permittees must update their respective manuals (MOA's 2007 Storm Water Treatment Plan Review Guidance Manual, [Second Edition] and/or any equivalent ADOT&PF guidance manual) to include requirements for the proper installation and maintenance of erosion controls, sediment controls, and material

containment/pollution prevention controls during all phases of construction activity. Within one year of the effective date of this permit, the permittees must update their manual(s) 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.

- c) **Plan Review and Approval.** The permittees must review and approve site plans from construction site operators within their jurisdictions. The MOA must require the preparation and submittal of a storm water treatment plan, for the MOA's review and written approval prior to issuance of a municipal permit for construction projects. The ADOT&PF must require the preparation and submittal of a storm water pollution prevention plan (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.
- (i) 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 II.B.1.b.
  - (ii) Within the MOA, the portion of the storm water treatment plan describing the active construction phase may serve as the SWPPP required under the NPDES or 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 NPDES or APDES Construction General Permit.
  - (iii) 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 NPDES or APDES Construction General Permit.
  - (iv) Permittees must use qualified individuals, knowledgeable in the technical review of storm water treatment plans/storm water pollution prevention plans to conduct such reviews.
  - (v) Permittees must document the review of each storm water treatment plan and SWPPP using a checklist or similar process.



- d) **Construction Site Inspections.** The permittees must inspect utility projects, construction sites which require a building permit, and non-publicly funded transportation projects at the frequency specified in Table II.B-1 below:

**Table II.B-1**

<b>Site</b>	<b>Inspection Frequency</b>
(A) All sites 5 acres or larger in size	Inspection must occur at least monthly during the construction season.
(B) Other sites 10,000 sq ft or more, or part of a larger common plan of development, which are determined by the permittee or permitting authority to be a significant threat to water quality*	
(C) All other construction sites with 10,000 sq ft or more, or which 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.	

- (i) Inspections of construction sites must include, but not be limited to:
- Check for coverage under the Construction General Permit by requesting a copy of any application or Notice of Intent (NOI) during initial inspections;
  - 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;
  - Assess compliance with the permittee's ordinances/requirements related to storm water runoff, including the implementation and maintenance of required control measures;

- Assess the appropriateness of planned control measures and their effectiveness;
  - Visually observe non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;
  - Provide education and outreach on storm water pollution prevention, as needed; and
  - Provide a written or electronic inspection report.
- (ii) 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.
- (iii) 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.
- e) **Enforcement Response Policy for Construction Site Management Program.** No later than two years after the effective date of this permit, each permittee must develop and implement a written escalating enforcement response policy (ERP) appropriate to their organization. Each ERP must be submitted to EPA and ADEC with the 2<sup>nd</sup> Year Annual Report. 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. 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:
- (i) **Verbal Warnings:** Verbal warnings are primarily consultative in nature. At a minimum, verbal warnings must specify the nature of violation and required corrective action.
  - (ii) **Written Notices:** Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
  - (iii) **Escalated Enforcement Measures:** The permittees must have the legal ability to employ any combination of the enforcement actions below (or their functional equivalent):

- 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.
  - 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.
- (iv) **Construction General Permit Violation Referrals:** For those construction projects subject to the NPDES or APDES Construction General Permit, permittees must refer non-filers (i.e., those projects which cannot demonstrate that they have appropriate NPDES permit coverage) to the Alaska Department of Environmental Conservation within 15 days of making that determination. In making such referrals, permittees must include, at a minimum, the following documentation:
- Construction project location;
  - Name of owner or operator;
  - Estimated construction project size; and
  - Records of communication with the owner or operator regarding filing requirements.
- (v) **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:
- Name of owner/operator;
  - Location of construction project;
  - Description of violation;
  - Required schedule for returning to compliance;
  - Description of enforcement response used, including escalated responses if repeat violations occur;
  - Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violations, etc.); and
  - Any referrals to different departments or agencies.

- f) **Construction Program Education and Training.** Within two years of the effective date of this permit, 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:
- (i) *Erosion and Sediment Control/Storm Water Inspectors:*
    - 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
    - Annual refresher training for existing inspection staff to update them on preferred BMPs, regulation changes, permit updates, and policy or standards updates.
  - (ii) *Other Construction Inspectors:* Initial training on general storm water issues, basic control measure implementation information, and procedures for notifying the appropriate personnel of noncompliance.
  - (iii) *Plan Reviewers:*
    - Initial training regarding control measure selection, design standards, review procedures;
    - Annual training regarding new control measures, innovative approaches, permit updates, regulation changes and policy or standard updates.
  - (iv) *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 II.B.1.f.i.-iii above.
  - (v) *Construction Operator Education.* Permittees must educate construction site operators as follows:
    - At least once per year, the permittees must either provide information to all construction companies on existing training opportunities or develop new training for construction operators regarding appropriate selection, installation, and use of required construction site control measures at sites within the permit area.
    - 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.

- Permittees must require construction operators to attend training at least once every three years.
- The permittees must provide appropriate information and outreach materials to all construction operators who will be disturbing land within their jurisdiction.

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:

- a) **Ordinance or other regulatory mechanisms.** Prior to the expiration date of this 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.
- (i) 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 keep 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 volume reduction can be achieved by canopy interception, soil amendments, evapotranspiration, rainfall harvesting, engineered infiltration, extended filtration, and/or any combination of such practices that will capture 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% managed with no discharge to surface waters, except when the permittee chooses to implement the conditions of II.B.2.a.ii below..
  - (ii) For projects that cannot meet 100% infiltration/evapotranspiration/reuse requirements onsite, offsite mitigation within the same subwatershed may be available, subject to siting restrictions established by the permittee. The permittee allowing this option must develop and apply criteria for determining the circumstances under which offsite mitigation may be allowed. A determination that the retention requirement cannot be met onsite 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 II.B.2.a.i, such as: inadequate room

onsite to create the necessary infiltrative capacity, particularly sites with poorly infiltrating soils; a site with high groundwater or shallow bedrock; and/or a land use that is inconsistent with capture and reuse or infiltration of stormwater. The permittee allowing this option must create an inventory of appropriate mitigation projects and develop appropriate institutional standards and management systems to value, estimate and track these situations. The permittee must identify priority areas within subwatersheds in which off-site retention may be conducted.

- (iii) The ordinance or regulatory mechanism must include the following water quality requirements:
- Projects with potential for excessive pollutant loading(s) must provide water quality treatment for associated pollutants before infiltration.
  - 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 a NPDES permitted wastewater treatment facility or via a licensed waste hauler to a permitted treatment and disposal facility.
- (iv) The ordinance or other regulatory mechanism must include procedures for storm water plan review and approval,
- (v) The ordinance or other regulatory mechanism must include sanctions (including fines) to ensure compliance, as allowed under state or local law.

- b) **Storm Water Design Criteria Manual.** The permittees must develop a Storm Water Design Criteria Manual specifying acceptable permanent storm water management and control practices. 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 three 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:

- (i) Specifications and incentives for the use of site-based practices appropriate to local soils and hydrologic conditions;
- (ii) A list of acceptable practices, including sizing criteria, performance criteria, design examples, and guidance on selection and location of practices; and
- (iii) Specifications for proper long term operation and maintenance, including appropriate inspection interval and self-inspection checklists for responsible parties.

- c) **Green Infrastructure/Low Impact Development (LID) Strategy and Pilot Projects.** Within one year of the effective date of this permit, the permittees must develop a 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 pilot projects described below. Permittees must begin implementation of the Green Infrastructure/LID Strategy and pilot projects within two years of the effective date of this permit.
- (i) Beginning with the 4<sup>th</sup> Year Annual Report, the permittees must report on and evaluate the status of five pilot 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 pilot projects must be ADOT&PF-owned locations. Parking lot retrofits as required in Part II.B.2.c.vi may be used as pilot projects. At least two of the pilot sites must address drainage areas greater than five acres in size. At least one pilot project must be located in the Chester Creek, Fish Creek, Campbell Creek, or Little Campbell Creek watersheds.
  - (ii) The permittees must monitor the performance of each pilot project and report the results beginning with the 4<sup>th</sup> Year Annual Report. The permittees must calculate or model changes in runoff quantities for each of the pilot project sites in the following manner:
    - 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.
    - For new construction projects, changes in runoff quantities shall be calculated for development scenarios both with LID practices and without LID practices.
    - 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 pilot project, including area, slope, vegetation type and condition for pervious surfaces, and nature of impervious surfaces.
    - 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 pilot studies to revise the Storm Water Design Criteria Manual(s) no later than five years from the effective date of this permit.

- (iii) **Rain Gardens.** Within four years of the effective date of this permit, the permittees must evaluate the effectiveness of rain gardens located in one neighborhood and one public-private community partnership. If feasible, pilot projects should be located within a TMDL watershed listed in Table II.C. The permittees must quantitatively evaluate the effectiveness of the rain gardens as outlined in Part II.B.2.c.ii above.
- (iv) **Riparian Zone Management.** Within five years from the effective date of this permit, the permittees must identify and prioritize riparian areas appropriate for permittee acquisition and protection. Prior to the expiration date of this permit, the permittees must examine the feasibility of reconstructing MS4 outfalls, and must disconnect at least one major MS4 outfall from discharging from receiving waters using vegetated swales or other appropriate techniques.
- (v) **Repair of Public Streets, Roads or Parking Lots.** When public streets, roads or parking lots are repaired as defined in Part VII, 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 4<sup>th</sup> Year Annual Report, 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.
- (vi) **Parking Lot Retrofits.** Prior to the expiration date of this permit, each permittee must retrofit at least two public facility parking lots with infiltration, evapotranspiration or reuse techniques designed to retain 100% of the parking lot runoff from the 90<sup>th</sup> percentile, 24 hour rainfall event. Each retrofit site must be located in a watershed draining to an impaired receiving water listed in Table II.C. The permittees must quantitatively measure the effectiveness of



the new techniques through measurement of runoff volume both before and after the retrofit.

- d) **Plan Review and Approval.** The permittees must 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. Within three years of the effective date of this permit, 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. Within three years of the effective date of this permit, ADOT&PF must require the preparation and submittal of plans for permanent stormwater control for the ADOT&PF's review and written approval prior to commencing with the construction project.
- (i) 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.
  - (ii) Permittees must use qualified individuals, knowledgeable in the technical review of plans for permanent storm water controls to conduct such reviews.
  - (iii) Permittees must document the review of each storm water treatment plan using a checklist or similar process.
- e) **Operation and Maintenance (O&M) of Permanent Storm Water Management Controls.**
- (i) **Inventory and Tracking.** Within three years of the effective date of this permit, the permittees must develop and maintain a database for tracking new public and private sector permanent storm water controls. Within five years of the expiration date of the permit, 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 the effective date of this permit; existing permanent controls are those installed prior to the effective date of this permit. 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;
  - (ii) **O&M Agreements.** Where parties other than the permittees are responsible for operation and maintenance of permanent storm water controls, within five years of the effective date of this permit, 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.

- f) **Inspection and Enforcement of Permanent Storm Water Management Controls.** Within three years of the effective date of this permit, the permittee must ensure proper long term operation and maintenance of all permanent storm water management practices within the permit area. The permittees must develop an inspection program, and prioritize new development and redevelopment sites for inspections of permanent storm water management controls. 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.
- (i) 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.
  - (ii) 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.
  - (iii) Within three years of the effective date of this permit, the permittees must develop and implement an enforcement strategy similar to that required in Section II.B.1.e to maintain the integrity of permanent storm water management and treatment practices.
- g) **Education and Training on Permanent Storm Water Controls.** Within one year of the effective date of this permit, the permittees must begin 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, Low Impact Development techniques, and proper operation and maintenance requirements.
- (i) Within two years of the effective date of this permit, and annually thereafter, 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.
  - (ii) Within two years of the effective date of this permit, and at least annually thereafter, permittees must provide training to local

audiences on the stormwater management requirements described in this Part.

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:
  - a) **Inventory of Industrial and Commercial Facilities and Activities.** Within three years of the effective date of this permit, the permittees must produce an inventory and map of facilities and activities discharging directly to their MS4s.
    - (i) 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;
    - (ii) 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 II.B.3 b; 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 II.B.3.c, 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.
    - (iii) The permittees must each identify at least two specific activities within their respective jurisdictions where storm water discharges are not adequately addressed, and develop performance standards for each activity. Examples include, but are not limited to: gas stations, animal facilities, carpet cleaners, mobile vehicle washing operations, and automobile repair shops.
    - (iv) The industrial and commercial inventory must be updated at least annually and submitted to EPA and ADEC with each Annual Report.

- b) **Snow Disposal Sites.** Within one year of the permit effective date, the permittees must 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 to further protect 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.
- (i) An evaluation report determining whether private snow disposal sites should be subject to ordinance or other enforceable requirements to adequately protect water quality must be submitted to EPA and ADEC with the corresponding Annual Report.
  - (ii) Within three years of the effective date of this permit, the permittees must revise all applicable requirements as necessary in accordance with recommendations contained in the evaluation report.
  - (iii) Permittees must use the inventory to select an appropriate site to retrofit as required by Part IV.A.9.
- c) **Animal Facilities.** Within three years of the effective date of this permit, MOA must evaluate whether 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 inventory referenced in Part II.B.3.a and this 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.
- (i) An evaluation report must be submitted with the corresponding Annual Report.
  - (ii) 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.
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:
- a) **Storm Sewer System Inventory and Mapping.** Within three years of the effective date of this permit, the permittees must update current records to develop a comprehensive inventory and map of the MS4s. The inventory

must identify all areas over which each permittee has responsibility. The inventory must include:

- (i) the location of all inlets, catchbasins and outfalls;
  - (ii) the location of all MS4 collection system pipes (laterals, mains, etc.);
  - (iii) the names and locations of all receiving waters of the US that receive discharges from the outfalls;
  - (iv) the location of all existing structural storm water treatment controls;
  - (v) identification of subbasin and approximate acreage draining into each MS4 outfall; and
  - (vi) 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.
- b) **Catch Basin and Inlet Cleaning.** Within two years of the effective date of this permit, the permittees must initiate an inspection program to inspect all permittee-owned or operated catch basins and inlets at least annually and take appropriate maintenance action based on those inspections.
- c) **Street and Road Maintenance.** Within one year 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. Water conservation measures should be considered for all landscaped areas.
- (i) **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/low impact development practices; and BMPs to reduce road and parking lot debris and other pollutants from entering the MS4. Within three years of the effective date of this permit, 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.
  - (ii) **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.

- (iii) **Covered Sand and Salt Storage.** Within four years of the effective date of this permit, the permittees must build covered storage facilities at each of their primary materials storage locations.
- d) **Street and Road Sweeping.** The permittees must update their respective street sweepings management plans within nine months of the effective date of this permit. Each permittee’s updated plan must designate streets, roads, and public parking lots within their jurisdiction that fit within each of the following categories for street sweeping frequency based on land use, traffic volumes or other factors:
  - 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.
- (i) Within one year, the permittees must identify and map all designated streets, roads, and public parking lots for sweeping frequency.
- (ii) Within one year and one month of the effective date of this permit, the permittees must sweep streets, roads, and public parking lots in their jurisdictions according to the following schedule:

**Table II.B-2**

<b>Period in the Year</b>	<b>Residential</b>	<b>Arterial and all other</b>	<b>Public Parking Lots <sup>3</sup></b>
<b>April 15 – June 1</b>	1 tandem <sup>1</sup>	2 tandem	1 vacuum <sup>2</sup>
<b>June 15 –August 1</b>	1 tandem	1 tandem	--
<b>Aug 15 – Oct 15</b>	--	--	1 vacuum
<b>Sept 1 – Oct 15</b>	1 tandem	1 tandem	--

Notes:  
<sup>1</sup> “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.  
<sup>2</sup> A vacuum sweeper sucks up loosened street particles with a vacuum and sends the directly to a hopper  
<sup>3</sup> Threshold size for public parking lots to be swept will be determined as permittees update their street sweeping plan(s).

- (iii) If a permittee’s existing overall street sweeping effort provides equivalent or greater street sweeping frequency to the requirements above, the permittee may continue to implement its existing street sweeping program.
- (iv) For areas where street sweeping is technically infeasible, the permittees must document in the 1<sup>st</sup> 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.

- (v) 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:
- Provide in the 1<sup>st</sup> 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;
  - Report annually on types of sweepers used, swept curb miles, dates of sweeping by general location 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;
  - 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.
- (vi) Not later than four years from the effective date of this permit, the permittees must update the document entitled *Anchorage OGS and Street Sweeping as Storm Water Controls: Performance Analysis*, Document #WMP APR 022002, (November 2002). The updated document must be submitted to ADEC with the 4<sup>th</sup> Year Annual Report.
- e) **Implement appropriate requirements for pesticide, herbicide, and fertilizer applications.** Permittees must 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.
- f) **Develop and implement Storm Water Pollution Prevention Plans.** Within three years of the effective date of this permit, the permittees must develop and implement SWPPPs for all permittee-owned, material storage facilities, maintenance yards, and snow disposal sites identified in the inventory required in Parts II.B.3.a and II.B.4.a. Permittee-owned facilities discharging storm water associated with industrial activity as defined in 40 CFR 122.26(b)(14) must obtain separate NPDES permit coverage as required in Part I.D.5 of this permit.
- g) **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 within three years of the effective date of this permit, and annually thereafter.

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 I.D. 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:
- a) **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.D of this permit) through enforcement of relevant ordinances or other regulatory mechanisms. Such ordinances 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:
- (i) Authorize the permittee to prohibit, at a minimum, the following discharges to the MS4, unless otherwise authorized in Part 1.D:
- 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.).
- (ii) Prohibit and eliminate illicit connections to the MS4;
  - (iii) Control the discharge of spills, and prohibit dumping or disposal of materials other than storm water into the MS4.
- b) **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:
- (i) **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 II.B.6, and clearly listed in the local telephone book.
  - (ii) **Response to Complaints.** The permittees must respond to all complaints as soon as possible, but no later than within two working days.
  - (iii) **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.
- c) **Illicit Discharge Mapping.** Within one year of the effective date of this permit, the permittees must develop 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.
- d) **Dry Weather Screening.** Permittees must implement, 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:
- (i) **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.

(ii) **Monitoring Illicit Discharges.** Within two years of the effective date of this permit, and annually thereafter, 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 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.

(iii) **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).

- e) **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.
- f) **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). Within two years of the effective date of this permit, the permittees must coordinate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times.

- g) **Facilitate Disposal of Used Oil and Toxic Materials.** 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. The program(s) must be implemented within 180 days of the effective date of the permit.
- h) **Training.** Within two years of the effective date of this permit, and annually thereafter, the permittees must develop 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.

#### 6. **Public Education and Involvement**

- a) The permittees must conduct an ongoing education and public involvement program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the permittee. 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 2005 public awareness study, or other more recent assessment of public knowledge.
- (i) Within one year of the permit effective date, 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.
- 1) General Public
    - General impacts of storm water flows into surface water
    - 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
  - 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 materials.
  - Impacts of illicit discharges and how to report them
- 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
  - Storm water treatment and flow control practices
- 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.
- (ii) 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.
- (iii) The permittees must track and maintain records of public education activities.
- b) **Targeted Education and Training.** The permittees must develop and implement comprehensive education and training as outlined in this permit in the following sections:
- (i) II.B.1.f - Construction Storm Water Management Training for construction site operators and staff;
  - (ii) II.B.2.g – Permanent Storm Water Control Training for project operators and staff
  - (iii) II.B.4.g– Storm Water Infrastructure and Street Management/ Maintenance training for State and Municipal staff;
  - (iv) II.B.5.h – Illicit Discharge Management Training for state and municipal staff.

- c) **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.
- (i) The annual meeting must be held during February, March, April or May of each year.
  - (ii) 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.
  - (iii) 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.
  - (iv) The permittees must accept public input during the annual meeting.
- d) **Quarterly Meetings.** The permittees must jointly organize and participate in permit coordination meetings with ADEC to discuss permit requirements, SWMP implementation results over the previous quarter, and SWMP implementation objectives for the following quarter. At a minimum, meetings must be held in January, March, June and September of each year, or at a schedule mutually agreed upon by the permittees and ADEC.
- e) **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 quarterly thereafter as new material is available. The website must incorporate the following features:
- (i) 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,
  - (ii) 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
  - (iii) Contact information, including phone numbers for staff and hotline, mailing addresses, and electronic mail addresses.

### C. Discharges to Water Quality Impaired Receiving Waters

1. The permittees must conduct a storm water discharge monitoring program as required in Part IV.
2. For the purposes of this permit, water quality impaired receiving waters and pollutants of concern include those listed in Table II.C.
3. Within one year from the effective date of this permit, and annually thereafter, the permittees must document how the minimum control measures in Part II.B are implemented by the permittees to specifically control the discharge of pollutant(s) of concern and ensure that discharges from the MS4s will not cause a violation of the Alaska water quality standards. The documentation must identify how the permittees will evaluate/measure the effectiveness of activities to control the discharge of the pollutants of concern over the five year permit term. For those activities identified in Part II.B requiring multiple years to implement, the permittees must provide updates on progress to date. The permittees must submit this documentation to ADEC as part of the 1<sup>st</sup> Year Annual Report required in Part IV.C, and update it as necessary in subsequent Annual Reports.

**Table II.C**

<b>Receiving Water</b>	<b>Pollutant(s) of Concern</b>
Hood/Spenard Lake	Fecal Coliform, Dissolved Oxygen
Ship Creek	Fecal Coliform; 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

### D. Reviewing and Updating the SWMP

1. Permittees must annually review their SWMP actions and activities for compliance with this permit as part of the preparation of the Annual Report required under Part IV.C.2.
2. Permittees may request changes to any SWMP action or activity specified in this permit in accordance with the following procedures:
  - a) Changes to delete or replace an action or activity specifically identified in this permit with an alternate action or activity may be requested by the permittees at any time. Modification requests to EPA and ADEC must include:

- (i) An analysis of why the original action or activity is ineffective, infeasible, or cost prohibitive;
  - (ii) Expectations on the effectiveness of the replacement action or activity; and
  - (iii) An analysis of why the replacement action or activity is expected to better achieve the permit requirements.
- b) Change requests must be made in writing and signed by the permittees in accordance with Part VI.E.
  - c) Documentation of any of the actions or activities required by this permit must be submitted to EPA or ADEC upon request.
  - d) EPA and/or ADEC may review Annual Reports or other such documentation and subsequently notify the permittees that changes to the SWMP actions and activities are necessary to:
    - (i) Address discharges from the MS4 that are causing or contributing to water quality impacts;
    - (ii) Include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; or
    - (iii) Include other conditions deemed necessary by EPA to comply with water quality standards, and/or other goals and requirements of the CWA.
  - e) If EPA notifies the permittees that changes are necessary pursuant to Parts II.D.2.a or II.D.2.d, the notification will offer the permittees an opportunity to propose alternative program changes to meet the objectives of the requested modification. Following this opportunity, the permittees must implement any required changes according to the schedule set by EPA.
3. Any modifications to this permit will be accomplished according to Part VI.A of this permit.

**E. Transfer of Ownership, Operational Authority, or Responsibility for SWMP**

**Implementation.** The permittees must implement the actions and activities of the SWMP in all new areas added or transferred to the permittee's MS4 (or for which a permittee becomes responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than 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.

**F. SWMP Resources.** The permittees must continue to 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 month in each Annual Report. Permittees are encouraged to consider establishing consistent funding sources for continued program implementation.

### III. Schedule for Implementation and Compliance

<b>Table III.A Storm Water Management Program – Schedule for Implementation and Compliance</b>			
<b>Part</b>	<b>SWMP Activity Summary</b>	<b>Compliance Date</b>	<b>Responsibility</b>
<b><i>General Requirements</i></b>			
I.C.3	Submit updated interjurisdictional agreement	Nine months from permit effective date	MOA, ADOT&PF
I.C.4	Submit Program Coordination Plan	Six months from permit effective date	
II.A.3	Complete at least two watershed plans	Prior to the expiration date of this permit	
II.C.3	Document how the SWMP activities are implemented to control the discharge of pollutant(s) of concern	One year from permit effective date, annually thereafter	
II.F	Report on total costs associated with SWMP implementation over the prior 12 month in each Annual Report.	One year from permit effective date, annually thereafter	
<b><i>Construction Site Runoff Control Program</i></b>			
II.B.1	a) Adopt ordinance or other regulatory mechanisms	One year from permit effective date	MOA, ADOT&PF
	b) Update and require the use of the manual by construction site operators within their jurisdiction		
	c) Review and approve preconstruction site plans from construction site operators within their jurisdiction.	Upon permit effective date	
	d) Inspect construction sites		
	e) Develop and implement a enforcement response policy for their organization; submit ERP	Two years from the permit effective date	
	f) Construction education for staff and operators	At least once per year	
<b><i>Storm Water Management from Areas of New Development &amp; Redevelopment</i></b>			
II.B.2	a) Adopt/implement an ordinance, or other enforceable regulatory requirements	Prior to expiration date of this permit	MOA, ADOT&PF
	b) Develop and distribute a Storm Water Design Criteria Manual. specifying permanent storm water management and control practices	Two years from the permit effective date	MOA
		Three years from the permit effective date	ADOT&PF
	c) Develop a green infrastructure/low impact development strategy Implement strategy, begin LID pilot projects i. Conduct & evaluate 5 pilot projects ii. Revise Design Criteria Manuals based on evaluations iii. Evaluate effectiveness of 2 rain gardens iv. Identify & prioritize riparian protection areas  v. Consider feasibility of using runoff reduction techniques in street, road and parking lot repair; report on use of such practices	One year from permit effective date (PED)	MOA, ADOT&PF
		Two years from PED	
Four years from PED			
No later than permit expiration date			
Four years from PED			
	No later than the expiration date of the permit		
	Report list of projects, beginning with the 4 <sup>th</sup> Year Annual Report		



<b>Table III.A, continued</b>			
<b>Storm Water Management Program - Schedule for Implementation and Compliance</b>			
<b><i>Storm Water Management from Areas of New Development &amp; Redevelopment, continued</i></b>			
<b>Part</b>	<b>SWMP Activity Summary</b>	<b>Compliance Date</b>	<b>Responsibility</b>
<b>II.B.2</b>	c) vi. Retrofit at least 2 public facility parking lots, evaluate the performance of selected techniques	Prior to the expiration date of this permit	MOA, ADOT&PF
	d) Review and approve plans for consistency with the ordinance/regulatory mechanism and Storm Water Design Criteria Manual (or equivalent).	Three years from the permit effective date	
	e) i. Develop/maintain an inventory for <b>new</b> permanent storm water controls.	Three years from the permit effective date(PED)	
	Develop/maintain an inventory for <b>existing</b> permanent storm water controls	Five years from PED	
	ii. Develop O&M agreements as necessary	Five years from PED	
	f) Ensure proper long term operation and maintenance of all permanent storm water management controls within the permit area through inspection and enforcement	Three years from the expiration date of this permit	
	g) Provide training regarding the selection, design, installation, operation and maintenance of permanent storm water controls.	Two years from the permit effective date, annually thereafter	
<b><i>Industrial and Commercial Storm Water Discharge Management</i></b>			
<b>Part</b>	<b>SWMP Activity Summary</b>	<b>Compliance Date</b>	<b>Responsibility</b>
<b>II.B.3</b>	a)i. Inventory and map commercial and industrial facilities determined to contribute substantial pollutant load to the MS4s.	Three years from the permit effective date	MOA, ADOT&PF
	iii. Identify two specific activities within their respective jurisdictions where storm water discharges are not adequately addressed, and develop performance standards for each activity.		
	b) Inventory and map locations of all snow disposal sites that discharge directly to the MS4 or to receiving waters; revise annually,	One year from permit effective date	
	i. Evaluate whether to regulate private snow disposal sites – submit evaluation report	Two years from permit effective date	
	iii. Revise applicable requirements in accordance with recommendations contained in the evaluation report.	Three years from permit effective date	
	c) Inventory and map all animal facilities that discharge storm water directly to the MS4 or to receiving waters.	Three years from permit effective date	
i. Evaluate whether to regulate animal facilities - submit evaluation report	Three years from permit effective date		
ii. Revise applicable requirements in accordance with recommendations contained in the evaluation report.	Four years from permit effective date		
<b><i>Storm Water Infrastructure and Street Management /Maintenance</i></b>			
<b>Part II.B.4</b>	a) Update Storm Sewer System Inventory and Map	Three years from permit effective date	MOA, ADOT&PF
	b) Implement an inspection program to inspect all catch basins and inlets owned or operated by the permittees at least annually and take appropriate maintenance action based on those inspections	Two years from permit effective date, annually thereafter	

<b>Table III.A, continued</b>			
<b>Storm Water Management Program - Schedule for Implementation and Compliance</b>			
<b>Part</b>	<b>SWMP Activity Summary</b>	<b>Compliance Date</b>	<b>Responsibility</b>
<b><i>Storm Water Infrastructure and Street Management/Maintenance, continued</i></b>			
<b>II.B.4</b>	c) Update the Street Maintenance Standard Operating Procedures for Storm water Control (“SOPs”) i. Implement all pollution prevention/good housekeeping practices established in the O&M Plan ii. Maintain inventory of street /road maintenance materials, document the inventory in the corresponding Annual Reports iii. Build covered storage facilities at each of their primary materials storage locations.	Within one year from permit effective date Within three years of permit effective date  Throughout the permit term, report annually Four years from permit effective date	MOA, ADOT&PF
	d) Update the Anchorage Street Sweepings Management Plan; i. Identify & map areas by sweeping frequency  ii. Perform sweeping operations v. Provide assessments of street sweeping effectiveness vi. Update and submit revised <i>Anchorage OGS and Street Sweeping as Storm Water Controls: Performance Analysis</i>	Nine months from permit effective date (PED) One year from PED  Ongoing Report annually  Not later than four years from PED	
	e) Implement practices to reduce pollutants to the MS4 associated with the application, storage and disposal of pesticides, herbicides and fertilizers from municipal areas and activities.	Upon permit effective date	
	f) Develop and implement SWPPPs for all, material storage facilities, maintenance yards, and snow disposal sites	Three years from permit effective date	
	g) Provide regular training to appropriate permittee staff on all O&M procedures and SOP activities	Three years from permit effective date, annually thereafter	
	<b><i>Illicit Discharge Management</i></b>		
<b>II.B.5</b>	a) Effectively prohibit non-storm water discharges to the MS4 through enforcement of relevant ordinances or other regulatory mechanisms. b) Respond to reports of illicit discharge from the public	Upon permit effective date	MOA, ADOT&PF
	c) Develop a map of reported/documented illicit discharges or connections to identify priority areas.	One year from permit effective date	
	d) Implement a dry weather analytical and field screening monitoring program ii. Monitor illicit discharges	Upon permit effective date Two years from permit effective date, annually thereafter	
	e) Investigate recurring illicit discharge identified by complaint or dry weather inspections within fifteen (15) days; take action to eliminate source of ongoing illicit discharge within 45 days of its detection.	Upon permit effective date	
	f) Prevent and Respond to Spills to the MS4. Coordinate spill prevention, containment and response activities throughout all departments/ programs/agencies to ensure maximum water quality protection at all times.	Ongoing Two years from permit effective date	
	g) Facilitate Disposal of Used Oil and Toxic Materials.	180 days from permit effective date, ongoing	
	h) Train all staff	Two years from permit effective date, annually thereafter	

<b>Table III.A, continued</b>			
<b>Storm Water Management Program - Schedules for Implementation and Compliance</b>			
<b>Part</b>	<b>SWMP Activity Summary</b>	<b>Compliance Date</b>	<b>Responsibility</b>
<b><i>Public Education and Involvement</i></b>			
<b>II.B.6.</b>	a) Implement or participate in an education and outreach program that uses a variety of methods to target the audiences and topics listed below	One year from permit effective date, ongoing thereafter	MOA, ADOT&PF
	b) Targeted Education and Training regarding construction, permanent storm water management, infrastructure & street management/maintenance and illicit discharge management	One year from permit effective date, ongoing thereafter	
	c) Convene a annual meeting to coordinate implementation of SWMP among permittee offices/departments, other state/federal agencies, cooperative groups and the public.	At least once per year, to be scheduled in the months of February, March, April or May.	
	d) Organize quarterly meetings to coordinate SWMP implementation activities	Meetings to be held in January, March, June & September of each year	
	e) Maintain and promote a publicly-accessible, jointly sponsored website	Ongoing	
<b><i>Monitoring and Reporting Requirements</i></b>			
<b>IV.A</b>	1) Self-evaluate compliance with permit conditions; document in the Annual Report	Once per year	MOA, ADOT&PF
	2) Develop & submit a monitoring and evaluation plan	One year from permit effective date	
	5) Begin monitoring activities	Within 90 days of ADEC approval of the QAP	
	6) Conduct pesticide screening in Lake Otis, Hideaway Lake and Little Campbell Lake	Late summer of years 2 and 4 of the permit term	
	7) Conduct Storm water Outfall Monitoring	No later than two years from permit effective date, ongoing thereafter	
	8) Evaluate existing structural controls – select and evaluate oil & grease separators & three sedimentation basins	Within three years of permit effective date	
	9) Each permittee must retrofit at least two snow storage sites; evaluate effectiveness of selected techniques	One site retrofit within two years from permit effective date; second site within three years from permit effective date	
<b>IV.C</b>	1) Submit storm water discharge monitoring report	Three years from the permit effective date; once per year thereafter	MOA, ADOT&PF
	2) Submit Annual Report	One year from permit effective date; annually thereafter.	

## IV. Monitoring, Recordkeeping and Reporting Requirements

### A. Monitoring

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 II. The compliance evaluation must be documented in each Annual Report required in Part IV.C.2
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:
  - a) Broadly estimate the annual pollutant loading of fecal coliform and petroleum products discharged to impaired receiving waters from the MS4s;
  - b) Assess the effectiveness and adequacy of at least two control measures implemented through this permit term in reducing fecal coliform and petroleum products; and
  - c) Identify and prioritize those portions of each permittee's MS4 requiring additional controls.

A monitoring and evaluation plan must be submitted to ADEC with the First Year Annual Report.

3. **Representative Sampling.** Samples and measurements must be representative of the nature of the monitored discharge.
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 ADEC. 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 ADEC.
5. **Quality Assurance Requirements.** Permittees must develop a quality assurance plan (QAP) for all analytical monitoring conducted in accordance with this Part. The QAP must be developed concurrently as part of the monitoring and evaluation plan. The permittees must submit the QAP (with the monitoring and evaluation plan) to ADEC for approval. Monitoring activities as described in the approved QAP must begin within 90 days of ADEC's approval. Any existing QAP may be modified for the requirements under this section.
  - a) The QAP 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.

- b) Throughout all sample collection and analysis activities, permittees must use the EPA-approved QA/QC and chain-of-custody procedures described in the following documents:
- (i) *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>;
  - (ii) ADEC's Elements of a Good Quality Assurance Project Plan (QAPP) (ADEC, 2002);
  - (iii) *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> ;
  - (iv) *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 QAP must be prepared in the format specified in these documents.

- c) At a minimum, the QAP must include the following:
- (i) Organization chart reflecting responsibilities of key permittee staff;
  - (ii) 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;
  - (iii) Data quality objectives;
  - (iv) Map(s) and associated documentation reflecting the location of each sampling point and physical description including street address or latitude/longitude;
  - (v) Qualification and training of personnel;
  - (vi) Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the permittees;
  - (vii) Data management;
  - (viii) Data review, validation and verification; and
  - (ix) Data reconciliation.

- d) The permittees must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP. Amendments must be submitted to ADEC within seven days of changing the QAP.
  - e) Copies of the approved QAP must be maintained by the permittees and made available to EPA and/or ADEC upon request.
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 2 and 4 using immunoassay test kits to measure pesticide concentrations in surface waters in which pesticides may be expected to accumulate. 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.
7. **Storm Water Outfall Monitoring**
- a) Within one year of the effective date of this permit, the permittees must develop 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.
  - b) Not later than two years of the effective date of this permit, the permittees must begin 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 IV.A.

<b>Table IV.A: Outfall Monitoring Requirements</b>			
Parameter	Monitoring requirements		
	Sample location <sup>1</sup>	Sample frequency <sup>2</sup>	Sample type <sup>3</sup>
Dissolved Oxygen		4 times/year	Grab
pH		4 times/year	Grab
Temperature (°C)		4 times/year	Recording
Turbidity		4 times/year	Recording
Flow (cfs)		4 times/year	Recording
Biochemical Oxygen Demand, 5-day (mg/L)		4 times/year	Grab
Fecal coliform (#colonies/100mL)		4 times/year	Grab
Total suspended solids (mg/L)		4 times/year	Grab
TAH, TaqH <sup>4</sup>		4 times/year	Grab

<sup>1</sup> Outfall locations must be defined in the permittees' Storm Water Outfall Monitoring Plan.

<sup>2</sup> A minimum of four (4) samples must be collected in calendar year, assuming the presence of storm events sufficient to produce a discharge.

<sup>3</sup> 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.

<sup>4</sup> 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.

8. **Evaluate Existing Structural Controls.** Within three years of the effective date of this permit, the permittees must select and evaluate the effectiveness of four oil and grit separators and three sedimentation basins in the treatment of water quality parameters described in Table IV.A and submit the results with the next Annual Report.
9. **Evaluate Snow Storage Site Retrofits.** The permittees must retrofit at least two of their own existing 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 are responsible for retrofitting at least one site within two years of the permit effective date; the second retrofit must be completed no later than three years of the permit effective date. The permittees must quantitatively assess the effectiveness of their retrofits by measuring changes in chloride and turbidity in melt water and must document results in a final project report to be submitted in the corresponding Annual Report.

## B. Recordkeeping

1. **Retention of Records.** The permittees 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 NPDES 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 EPA at any time. Records include all information used in the development of the SWMP, all monitoring data, copies of all reports, and all data used in the development of the permit application.
2. **Availability of Records.** The permittees must submit the records referred to in Part IV.B.1 to EPA and ADEC only when such information is requested. The permittees must retain all records comprising the SWMP required by this permit (including a copy of the permit language and all Annual Reports) at a location accessible to the EPA. The permittees must make all records, including the permit application and the SWMP, available to the public if requested to do so in writing. The public must be able to view the records during normal business hours. The permittees may charge the public a reasonable fee for copying requests.

## C. Reporting Requirements

1. **Storm Water Discharge Monitoring Report.** Within three years from the effective date of this permit, and once per year thereafter, 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:
  - a) Dates of sample collection and analyses;
  - b) Results of sample analyses; and
  - c) Location of sample collection.
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 EPA and ADEC. 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:
  - a) 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 II.B, II.C, and IV. The status of each activity must be addressed, even if activity has previously been completed or not yet been implemented;
  - b) 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 at improving water quality to the maximum extent practicable;

- c) 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;
- d) 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;
- e) 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;
- f) A description and schedule for implementation of additional controls or practices that may be necessary, based on monitoring results, to ensure compliance with applicable water quality standards; and
- g) Notice if the permittees are relying on another entity to satisfy any of the permit obligations, if applicable.

#### **D. Addresses**

Reports and other documents required by this permit must be signed in accordance with Part VI.E and submitted to each of the following addresses:

EPA: United States Environmental Protection Agency  
Attention: Storm Water Program  
NPDES Compliance Unit  
1200 6<sup>th</sup> Avenue, Suite 900 (OCE-133)  
Seattle, WA 98101

ADEC: Alaska Department of Environmental Conservation  
Attention: Storm Water Program  
Division of Water  
555 Cordova Street  
Anchorage, AK 99501-2617

## V. Compliance Responsibilities

**A. Duty to Comply.** The permittees must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

### B. Penalties for Violations of Permit Conditions

**1. Civil and Administrative Penalties.** Pursuant to 40 CFR Part 19 and the Act, any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$37,500 per day for each violation).

**2. Administrative Penalties.** Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of this Act. Pursuant to 40 CFR Part 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$37,500). Pursuant to 40 CFR Part 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$177,500).

### 3. Criminal Penalties

- a) **Negligent Violations.** The Act provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two years, or both.

- b) **Knowing Violations.** Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both.
- c) **Knowing Endangerment.** Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- d) **False Statements.** The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

**C. Need to Halt or Reduce Activity not a Defense.** It shall not be a defense for the permittees in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

**D. Duty to Mitigate.** The permittees must take all reasonable steps to minimize or prevent any discharge or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

**E. Proper Operation and Maintenance.** The permittees must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittees to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate

laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittees only when the operation is necessary to achieve compliance with the conditions of the permit.

**F. Toxic Pollutants.** The permittees must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

**G. Planned Changes.** The permittees must give notice to the Director and ADEC as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR §122.29(b); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit.

**H. Anticipated Noncompliance.** The permittees must give advance notice to the Director and ADEC of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

## VI. General Provisions

**A. Permit Actions.** This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§ 122.62, 122.64, or 124.5. The filing of a request by the permittees for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

**B. Duty to Reapply.** If the permittees intends to continue an activity regulated by this permit after the expiration date of this permit, the permittees must apply for and obtain a new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Director, the permittees must submit a new application at least 180 days before the expiration date of the permit, or in conjunction with the 4<sup>th</sup> Year Annual Report. The reapplication package must contain the information required by 40 CFR §122.21(f) which includes: name and mailing address(es) of the permittees(s) that operate the MS4(s), and names and titles of the primary administrative and technical contacts for the municipal permittees(s). In addition, the permittees must identify the identification number of the existing NPDES MS4 permit; any previously unidentified water bodies that receive discharges from the MS4; a summary of any known water quality impacts on the newly identified receiving waters; a description of any changes to the number of applicants; and any changes or modifications to the Storm Water Management Program. The re-application package may incorporate by reference the

4<sup>th</sup> Year Annual Report when the reapplication requirements have been addressed within that report.

**C. Duty to Provide Information.** The permittees must furnish to the Director and ADEC, within the time specified in the request, any information that the Director or ADEC may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittees must also furnish to the Director or ADEC, upon request, copies of records required to be kept by this permit.

**D. Other Information.** When the permittees becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to the Director or ADEC, the permittees must promptly submit the omitted facts or corrected information.

**E. Signatory Requirements.** All applications, reports or information submitted to the Director and ADEC must be signed and certified as follows.

1. All permit applications must be signed as follows:
  - a) For a corporation: by a responsible corporate officer.
  - b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
  - c) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Director or the ADEC must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a) The authorization is made in writing by a person described above;
  - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the organization; and
  - c) The written authorization is submitted to the Director and ADEC.
3. Changes to authorization. If an authorization under Part VI.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part VI.E.2 must be submitted to the Director and ADEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. **Certification. Any person signing a document under this Part must make the following certification:**

"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."

**F. Availability of Reports.** In accordance with 40 CFR Part 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittees. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittees. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

**G. Inspection and Entry.** The permittees must allow the Director, ADEC, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittees' premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

**H. Property Rights.** The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of state or local laws or regulations.

**I. Transfers.** This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittees and incorporate such other requirements as may be necessary under the Act. (See 40 CFR §122.61; in some cases, modification or revocation and reissuance is mandatory.)

**J. State/Tribal Environmental Laws**

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittees from any responsibilities, liabilities, or penalties established pursuant to any applicable State/Tribal law or regulation under authority preserved by Section 510 of the Act.
2. No condition of this permit releases the permittees from any responsibility or requirements under other environmental statutes or regulations.

**K. Oil and Hazardous Substance Liability** Nothing in this permit shall be constructed to preclude the institution of any legal action or relieve the permittees from any responsibilities, liabilities, or penalties to which the permittees is or may be subject under Section 311 of the CWA or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

**L. Severability** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to the circumstances, and the remainder of this permit shall not be affected thereby.

## VII. Definitions and Acronyms

All definitions contained in Section 502 of the Act and 40 CFR Part 122 apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided but, in the event of a conflict, the definition found in the statute or regulation takes precedence.

“Administrator” means the Administrator of the EPA, or an authorized representative. After November 1, 2009, this definition also includes the Administrator of ADEC or an authorized representative.

“Animal facility” see “commercial animal facility”

“ADEC” means the Alaska Department of Environmental Conservation.

“APDES” means the Alaska Pollutant Discharge Elimination System. See definition for “NPDES.”

“Best Management Practices (BMPs)” 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” is 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” is the interception of precipitation, by leaves and branches of trees and vegetation that does not reach the soil.

“CGP” and “Construction General Permit” means the current version of EPA’s or *NPDES General Permit for Storm Water Discharges for Construction Activities in Alaska*, Permit No. AKR10-0000, or the comparable version of ADEC’s permit. EPA’s CGP is posted on EPA’s website at [www.epa.gov/npdes/stormwater/cgp](http://www.epa.gov/npdes/stormwater/cgp).

“Common Plan of Development” is 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.

“Commercial Animal Facility” as used in 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 the AMC Title 17, at <http://www.muni.org/iceimages/animal/CodifiedTitle172004.pdf>

Construction activity” includes, but is 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).

“Control Measure” as used in this permit, refers to any action, activity, Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

“CWA” or “The Act” means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or 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 Environmental Protection Agency Regional Administrator, the Director of the Office of Water and Watersheds, or an authorized representative. After November 1, 2009, this definition also includes the Administrator of ADEC, the Director of the ADEC Division of Water, or an authorized representative.

“Discharge” when used without a qualifier, refers to “discharge of a pollutant” as defined at 40 CFR §122.2.

“Discharge of a pollutant” 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. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channelled 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” as used in 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, and which are required to be managed under an NPDES permit. See the regulatory definitions of storm water discharge associated with large and small construction activity at 40 CFR §122.26(b)(14)(x) and 40 CFR §122.26(b)(15), respectively

“Discharge of Storm Water Associated with Industrial Activity” as used in this permit, refers to the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant included in the regulatory definition of storm water discharge associated with industrial activity at 40 CFR §122.26(b)(14).

“Discharge-related Activities” 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 or DMR” means the EPA uniform national form, including any subsequent additions, revisions or modification for the reporting of self monitoring results by permittees. See 40 CFR §122.2.

“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” is 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.

“Erosion” means the process of carrying away soil particles by the action of 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” is 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.

“EPA” means the Environmental Protection Agency Regional Administrator, the Director of the Office of Water and Watersheds, or an authorized representative.

“Entity” means a governmental body or a public or private organization.

“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 program.

“Green infrastructure” 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.

“Illicit Discharge” is defined at 40 CFR §122.26(b)(2) and means 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” (or “Water Quality Impaired Water”) 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” as used in 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” as used in this permit refers to storm water runoff associated with the definition of “discharges of storm water associated with industrial activity”.

“Infiltration” is the process by which storm water penetrates into soil.

“Low Impact Development” or “LID” 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.

“MEP” or “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 Section 402(p) of the Clean Water Act, 33 U.S.C §1342(p).

“Measurable Goal” means a quantitative measure of progress in implementing a component of a storm water management program.

“Minimize” 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.

“MS4” means "municipal separate storm sewer system," and 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 those portions of the municipal separate storm sewer systems within the corporate limits of the Municipality of Anchorage that are owned and/or operated by either the Municipality of Anchorage or the Alaska Department of Transportation and Public Facilities.

“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” is defined in 40 CFR §122.26(b) and 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.

“National Pollutant Discharge Elimination System” or “NPDES” 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” is defined at 40 CFR §122.26(b)(9) means a point source (see definition 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.

“Permanent storm water management controls” see “post-construction storm water management controls.”

“Permitting Authority” means the U.S. Environmental Protection Agency (EPA) or, after November 1, 2009, the Alaska Department of Environmental Conservation (ADEC).

“Point Source” is defined at 40 CFR §122.2 and 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" is 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" includes any pollutant identified as a cause of impairment of any water body that will receive a discharge from a MS4 authorized under this permit.

"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.

"QA/QC" means quality assurance/quality control.

"QAP" means Quality Assurance Plan.

"Rainfall and Rainwater Harvesting" is 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.

"Regional Administrator" means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator. After November 1, 2009, this definition also includes the Administrator of ADEC or an authorized representative.

"Repair of Public Streets, Roads and Parking Lots" 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 paving 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.

"Small Construction Activity" – is defined at 40 CFR §122.26(b)(15) and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less

than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

“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” are 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” storm water management 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” and “storm water runoff” as used in this permit means storm water runoff, snow melt runoff, and surface runoff and drainage, and is defined at 40 CFR §122.26(b)(13). Storm water means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility.

“Stormwater 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).”

“Stormwater 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 Practice” or “Storm Water Management Control” means practices that manage storm water, including structural and vegetative components of a storm water system.

“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 EPA) 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

“TMDL” means 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” storm water management means practices that ‘treat’ storm water after pollutants have been incorporated into the storm water.

“Waters of the United States,” as defined in 40 CFR 122.2, means:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate "wetlands";
3. All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs 1. through 4. of this definition;
6. The territorial sea; and

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs 1. through 6. of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds for steam electric generation stations per 40 CFR Part 423) which also meet the criteria of this definition are not waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

“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.