

# 2012 ANNUAL REPORT

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**Phase II Small Municipal Separate Storm Sewer System  
Alaska Pollutant Discharge Elimination System  
Permit No. AKS-053406**

**City of Fairbanks  
City of North Pole  
University of Alaska Fairbanks  
Alaska Department of Transportation & Public Facilities - Northern Region**

**~ May 2012 ~**





*Prepared by:*

**City of Fairbanks  
Department of Public Works  
Engineering Division  
800 Cushman Street  
Fairbanks, Alaska 99701**

### CERTIFICATION

The technical material and data contained in this Annual Report was prepared under the supervision and direction of the undersigned qualified professionals.


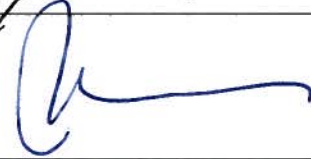


*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering 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."*

Name	Title	Signature	Date
Jackson Fox	Environmental Manager, City of Fairbanks		5/10/2012
Michael Schmetzer, P.E.	Director of Public Works & City Engineer, City of Fairbanks		5/14/2012

### APPROVAL SIGNATURES

Any person executing the approval signature of the Annual Report is making 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 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."*

Name	Title	Signature	Date
Jerry Cleworth	Mayor, City of Fairbanks		5-11-12
Douglas Isaacson	Mayor, City of North Pole		5/17/12
Pat Pitney	Vice Chancellor of Administrative Services, University of Alaska Fairbanks		5/14/12
Bill O'Halloran	Maintenance & Operations Director, Alaska Department of Transportation & Public Facilities – Northern Region		5-14-2012

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## ACRONYMS

AAS	Adopt-A-Stream Program
ADEC	Alaska Department of Environmental Conservation
APDES	Alaska Pollutant Discharge Elimination System
BMP	Best Management Practice
COF	City of Fairbanks
CONP	City of North Pole
CWA	Clean Water Act
DOT&PF	Alaska Department of Transportation & Public Facilities – Northern Region
EPA	U.S. Environmental Protection Agency
FNSB	Fairbanks North Star Borough
FSWAC	Fairbanks Storm Water Advisory Committee
FSWCD	Fairbanks Soils and Water Conservation District
MOA	Memorandum of Agreement
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
PSWCP	Permanent Storm Water Control Plan
ROW	Right-of-way
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
TVWA	Tanana Valley Watershed Association
UAF	University of Alaska Fairbanks
USACE	U.S. Army Corp of Engineers

## I BACKGROUND INFORMATION

### I.A APDES Permit

#### I.A.1 Permittee Information & Reporting Period

Permit Number: AKS-053406

Co-permittees:

City of Fairbanks  
Mayor Jerry Cleworth  
800 Cushman Street  
Fairbanks, Alaska 99701  
(907) 459-6793

City of North Pole  
Mayor Douglas Isaacson  
125 Snowman Lane  
North Pole, Alaska 99705  
(907) 488-2281

University of Alaska Fairbanks  
Ms. Pat Pitney  
P.O. Box 757380  
Fairbanks, Alaska 99775  
(907) 474-6088

Alaska Department of Transportation &  
Public Facilities – Northern Region  
Mr. Bill O’Halloran  
2301 Peger Road  
Fairbanks, Alaska 99709  
(907) 451-2294

Annexation: Have any areas been added to the municipal separate storm sewer system (MS4) due to Annexation or other legal means?

YES ☐

NO ☒

Reporting Period: June 1, 2011 to May 31, 2012

#### I.A.2 Permit Overview

The City of Fairbanks (COF), City of North Pole (CONP), University of Alaska Fairbanks (UAF), and Alaska Department of Transportation and Public Facilities (DOT&PF) received a Phase II National Pollutant Discharge Elimination System (NPDES) Permit from the U.S. Environmental Protection Agency (EPA) on June 1, 2005. The Alaska Department of Environmental Conservation (ADEC) later assumed authority over the Permit under the Alaska Pollutant Discharge Elimination System (APDES) Program on October 31, 2009. The four entities, collectively known as the Co-permittees, are authorized to discharge storm water to Beaver Springs, Chena River, Chena Slough, Noyes Slough, and other associated Waters of the U.S. from: (1) all portions of the MS4 owned and operated by the COF, CONP, and UAF; and (2) the portions of the MS4 with State of Alaska right-of-ways (ROWS) located within the boundaries of the Fairbanks Urbanized Area

which are owned or operated by the DOT&PF. The Fairbanks Urbanized Area is defined by the U.S. Census Bureau as the area of the Fairbanks North Star Borough consisting of contiguous, densely settled census block groups and census block that meet minimum population density requirements, along with adjacent densely settled census blocks that together encompass a population of 50,000 people. A map of the Fairbanks Urbanized Area, including City Limit boundaries for the COF and CONP, is included in Appendix A.

The originally issued Permit was listed as valid for a term of five years from June 1, 2005 to May 31, 2010. The Co-permittees were required to reapply for Permit coverage at least 180 days from the expiration of the Permit. The Co-permittees submitted an application to the ADEC for Permit renewal on November 25, 2009, for the next five-year Permit term from 2010 to 2015. To date, the ADEC has not issued a new Permit to the Co-permittees. However, the ADEC has provided an administrative extension for the existing Permit to remain effective and enforceable until a new Permit is issued.

## **I.B Storm Water Management Program Overview**

Section II.A.I of the Permit requires that the Co-permittees develop, implement, and enforce a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, protect water quality, and satisfy water quality requirements of the Clean Water Act (CWA). The SWMP includes best management practices (BMPs), control techniques, system design, engineering methods, and other provisions the Co-permittees or ADEC determines appropriate for the control of pollutants in discharges from the MS4. The SWMP serves as a tool to help the Co-permittees fulfill the requirements of the Permit and provisions of the CWA. The following subsections include the definition, purpose and goals, and key performance characteristics of the SWMP.

### *I.B.1 Definition of the Storm Water Management Program*

The following documents define the SWMP:

- *Storm Water Management Plan – Fairbanks Urbanized Area* (COF – May 2003)
- *Fact Sheet, NPDES Permit No. AKS-053406* (EPA – October 18, 2004)
- *NPDES Permit No. AKS-053406, effective June 1, 2005* (EPA – April 19, 2005)
- *Monitoring Program Plan Including Quality Assurance Requirements*, (COF – February 2006)
- *APDES Permit No. AKS-053406, effective October 31, 2009* (ADEC – November 2, 2009)

The Co-permittees submitted the Storm Water Management Plan with the original Permit application. Subsequently, the EPA issued the Fact Sheet during the permitting process for public comment, which concluded on December 2, 2004. Comment responses were published in April 2005, with final Permit issuance on April 19, 2005. The Co-permittees then submitted the Monitoring Program Plan in February 2006, as required by Section IV.A.2.d of the Permit. The

final Permit adopted the Storm Water Management Plan by reference, and expanded on the Permit requirements to include six Minimum Control Measures, as follows:

1. Public Education and Outreach
2. Public Involvement / Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention and Good Housekeeping for Municipal Operations

The ADEC later assumed authority over the Permit on October 31, 2009, with all EPA-issued Permit requirements and conditions remaining in effect. Pursuant to Section II.A.4.b and in accordance with the timelines set within the Permit, the Co-permittees achieved full implementation of the SWMP by May 2010 (i.e. within the original five-year Permit term).

*I.B.2 Purpose and Goals of the Storm Water Management Program*

The purpose of the SWMP is to guide the Co-permittees' collective efforts to satisfy the requirements of the Permit and water quality requirements of the CWA. Through institution of BMPs, control techniques, system design, engineering methods, and other provisions, the Co-permittees will ensure all applicable federal and state storm water quality requirements are attained. Appropriate goals identified for the SWMP include, but are not limited to:

- Compliance with APDES Permit No. AKS-053406
- Adherence to Alaska's Category 5 / Section 303(d) Impaired Waters and Total Maximum Daily Load (TMDL) Water Body Recovery Plan Provisions
- Meeting State of Alaska Water Quality Standards (18 AAC 70) and Wastewater Disposal Regulations (18 AAC 72), including compliance with Alaska's Anti-Degradation Policy

*I.B.3 Storm Water Management Program Key Performance Characteristics*

To successfully meet the purpose and goals of the SWMP and CWA objectives, the SWMP must possess key performance characteristics. Key performance characteristics identified in the SWMP include, but are not limited to: compliance with the requirements of the Permit; intergovernmental coordination and cooperation; appropriateness of BMPs for the local population, pollution sources, climactic and soils conditions, and water body recovery plans; monitoring data used to assess the success of the SWMP at reducing the discharge of pollutants to the maximum extent practicable; and proposed and completed changes to the SWMP to remediate ineffective, infeasible, or cost prohibitive SWMP control measures or goals.

## **II ANNUAL REPORT**

### **II.A Annual Report Overview**

At least once annually, the Co-permittees are required to submit an Annual Report to the ADEC. The Annual Report must include, at a minimum:

- a. An evaluation of compliance with the requirements of the permit, the appropriateness of identified BMPs, and progress towards achieving identified measurable goals of the SWMP for each Minimum Control Measure;
- b. Results of any information collected and analyzed during the previous 12-month reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the maximum extent practicable;
- c. A summary of the activities the Co-permittees plan to undertake during the next reporting cycle (including an implementation schedule) for each Minimum Control Measure;
- d. Proposed changes and completed changes to the SWMP, including any changes to BMPs or identified measurable goals under the Minimum Control Measures;
- e. A description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable water quality standards; and
- f. Notice if the Co-permittees are relying on another entity to satisfy some of the permit obligations, if applicable.

This document fulfills the annual reporting requirements for the seventh year following the effective date of the Permit, pursuant to Sections II.B.1 through II.B.6, IV.C, and Appendix A. The following sections provide a comprehensive summary of the Co-permittees' efforts towards completion of the six aforementioned Minimum Control Measures, and an overall evaluation of the SWMP to date.

## **II.B Minimum Control Measures**

### *II.B.1 Public Education and Outreach*

The requirements of Minimum Control Measure 1, *Public Education and Outreach*, are presented below with discussion of the Co-permittees' efforts to meet these requirements based on the Annual Report requirements presented in Section II.B.1.d and Appendix A of the Permit.

**1. Describe the public education programs and outreach programs accomplished during the previous calendar year, including at least one copy of each educational material distributed.**

In 2003 the Co-permittees formed the Fairbanks Storm Water Advisory Committee (FSWAC) to coordinate and carry out the development, implementation, and review of the SWMP. Current committee members and participants include representatives from each of the Co-permittees, Fairbanks North Star Borough (FNSB), ADEC, Fairbanks Soil & Water Conservation District (FSWCD), and Tanana Valley Watershed Association (TVWA). The committee also has two citizen members from Fairbanks and North Pole, each serving as a representative of the community in which they live. Collectively, all of the members of the FSWAC help implement a local public education and outreach program to meet the requirements of Minimum Control Measures 1 and 2 of the Permit.

In accordance with the SWMP, public education and outreach activities are focused in the month of April of each year when snowmelt runoff is prevalent, parking lots and streets are flooded, and storm water concerns are easily identifiable to residents of the community. The program is focused on creating awareness and educating the public about the impacts of storm water discharges to the MS4 and local water bodies, and provides information on how citizens and businesses can take steps to reduce pollutants in storm water runoff. Program activities completed during the 2011/2012 reporting year include:

- Maintaining an Informative Storm Water Management Program Webpage
- Providing Storm Water Educational Presentations to Local Schools
- Providing a Guest Presentation on Storm Water to a Local Interest Group
- Distributing Educational Material at Local Events and by Mail to Local Businesses

Additional public education and outreach activities completed during the 2011/2012 reporting year included hosting a stream cleanup event, implementing ongoing Volunteer Water Quality Monitoring and Adopt-A-Stream (AAS) Programs, implementing a Storm Drain Stenciling Program, and convening monthly FSWAC meetings open to the public; which are later discussed under Minimum Control Measure 2.

The following summarizes the public outreach and education activities accomplished under Minimum Control Measure 1 during the 2011/2012 reporting year.

Fairbanks Storm Water Management Program Webpage

The FNSB maintains the Fairbanks Storm Water Management Program Webpage at <http://co.fairbanks.ak.us/PWorks/StormWaterManagementProgram/> on behalf of the both the FNSB and Co-permittees. The webpage provides a definition of storm water, background on why storm water is regulated, overview of the Fairbanks SWMP, agency contacts, directions on how to report illicit discharges, news and events, FSWAC meeting dates, and a copy of the Co-permittees' and FNSB's Phase II APDES Permits and current Annual Reports. The webpage also provides viewers links to the ADEC Storm Water Program webpage, ADEC Construction General Permit, Alaska Storm Water Guide, COF and CONP Storm Water Management Program Guide, FNSB BMP Design Guide, DOT&PF Storm Water Pollution Prevention Plan (SWPPP) Guide, and a map and storm water plan submittal flowchart for the Fairbanks Urbanized Area. A current copy of the webpage is included in Appendix A. Both the COF and FNSB maintain a link to the webpage on their respective home pages at <http://ci.fairbanks.ak.us/> and <http://co.fairbanks.ak.us/>.

Storm Water Educational Presentations to Local Schools

As in previous reporting years, the FSWAC delivered storm water educational presentations to various FNSB elementary schools in Fairbanks and North Pole from February to May 2012. The presentations provided a 20-minute slide show on the types of pollutants carried in storm water, how those pollutants reach area water bodies, and what can be done to limit the effects, followed by a 20-minute watershed model demonstration. The EnviroScape® Nonpoint Source Model helped children make the visual connection between what they learned during the slide show and what happens in our watershed. The children watched storm water pick up pollutants (i.e. colored drink mixes) in a suburban area and carry them to a lake.

In total, there were 16 presentations delivered to approximately 400 elementary school children at eight different schools in February through May 2012. After each presentation, storm water bracelets, stickers, and pencils were distributed to the students. A copy of the slide show presentation, spreadsheet outlining participation, and information on the model are included in Appendix A.

Guest Presentation on the Local Storm Water Program

At the request of the Alaska Northern Region Section of the American Water Resources Association, the FSWAC provided a guest presentation on the local storm water program in December 2011. The presentation was titled "Maintaining the Fairbanks, Alaska, Storm Water System and Reducing Runoff through Green Infrastructure Solutions." The presentation provided an introduction to storm water runoff, an overview of the Fairbanks area storm drain system,

and identification of local pollutants of concern, followed by a discussion of various green infrastructure applications that can help improve water quality and reduce the amount of runoff from entering the storm drain system. A copy of the slide show for the latter presentation is included in Appendix A.

#### Educational Material Distribution

*2012 Northern Living Home Show* – The FSWAC distributed educational materials at the Home Show in Fairbanks during the weekend of March 23 – 25, 2012, at the FSWCD booth. The Home Show is an annual event held in Fairbanks each spring to kick off the construction season, and includes a wide variety of local vendors showcasing building materials, equipments, and services. Approximately 150 vendors participate each year with an average of 7,500 people attending over a 3-day weekend. At this year's event, the FSWAC distributed copies of the new Fairbanks Green Infrastructure Resource Guide brochures. The brochures provided the step-by-step installation process, materials and tools needed, cost and time estimates for installation, and maintenance requirements for green infrastructure applications such as rain barrels, rain gardens, tree pits, infiltration planters, vegetated swales/retention gradings, dry wells, riparian buffers, green roofs, permeable pavers, and grass car parks. A copy of the Green Infrastructure Resource Guide, which includes copies of the brochures appended to the guide, was included in the preceding 2011 Annual Report.

In conjunction with the Home Show event the FSWAC also placed a storm water advertisement in two special sections of the Fairbanks Daily News-Miner newspaper – the Spring Homes & Real Estate section that was published on March 23, and Building Homes & Garden section on April 6. The advertisement targeted local developers/engineers/contractors to make them aware of the local storm water plan review and permitting requirements. A copy of the advertisement is included in Appendix D and discussed in more detail under Minimum Control Measure 4.

*Snow Disposal Brochure* – Last year the FSWAC developed a brochure on snow disposal practices that educates local contractors on the types of pollutants found in snow in urban areas, describes the effects on water bodies if improperly disposed, and provides some examples of best management practices to help keep the pollutants out of our local water bodies. The brochure was mailed in November 2011 (second annual mailing) to all listed snow removal contractors in Fairbanks and North Pole. A copy of the brochure and mailing list are included in Appendix A.

*Landscaping Brochure* – Last year the FSWAC also developed a brochure on landscaping practices such as proper disposal of grass/brush clippings, use of fertilizers and pesticides/herbicides, and water usage. The brochure was mailed in May 2012 (second annual mailing) to all listed landscaping and lawn care contractors in Fairbanks and North Pole. A copy of the brochure and mailing list are included in Appendix A.

***2. Describe the methods and frequency of distributing information.***

As discussed above, the FSWAC distributed educational information to the public using multiple formats including the world-wide-web, radio broadcasts, in-person presentations, and print media. The Fairbanks Storm Water Management Webpage provides information on our local storm water program to the public year-round. The educational presentations are provided annually in spring of each year when snowmelt runoff is prevalent, parking lots and streets are flooded, and storm water concerns are easily identifiable to residents of the community. Likewise, the new brochures that were developed for snow removal and landscaping contractors were mailed during the respective season in which they operate – winter for snow removal contractors, and late spring / early summer for landscaping contractors. The frequency of distribution of other educational material distribution varies from year to year, but is largely focused on being seasonally appropriate.

***3. Describe the target audiences and pollutants / sources that are addressed by the program, and how they were selected.***

Target audiences for the public education and outreach program include:

- Students and the general public
- Home and property owners
- Business owners
- Other federal, state, and local agencies

Education and outreach efforts have been tailored to reach the above-listed target audiences, both individually and collectively, through message content and method of distribution. For example, the content and accessibility of the Fairbanks Storm Water Management Webpage collectively provides regulatory information for home, property, and business owners. The storm water educational presentations to local schools, on the other hand, limit their focus to educating students which may have limited exposure to curriculum on storm water and the effects of water pollution. Furthermore, the educational material distribution, such as the green infrastructure brochures, focus on all residents of the community. Also specifically targeted during the 2011/2012 reporting year were snow removal and landscaping contractors as discussed above.

The FSWAC selected pollutants of concern to address under this program based on Alaska's Category 5 / Section 303(d) Impaired Waters List, which includes the Chena River, Chena Slough, and Noyes Slough. The pollutants of concern for the Chena River and Chena Slough include petroleum products and sediment; and Noyes Slough includes petroleum products, sediment, and debris. Information on each of these pollutants was specifically incorporated into all of the aforementioned education and outreach efforts.

***4. Estimate the number of people reached by the program over the previous 12-month period.***

The public education and outreach program has reached approximately 2,200 people during the 2011/2012 reporting year; which includes over 1,500 visitors to the Fairbanks Storm Water Management Webpage between June 2011 and May 2012, approximately 400 students that were give educational presentations, and approximately 300 people that attended another presentation and/or received or picked up one or more of the FSWAC's collection of brochures by mail or at local event.

Under Minimum Control Measure 2, additional public education and outreach activities completed during the 2011/2012 reporting year may have also reached a potential audience of 5,000 people. These activities included hosting a stream cleanup event, organizing an ongoing Volunteer Water Quality Monitoring and AAS Program, implementing a Storm Drain Stenciling Program, and convening monthly FSWAC meetings open to the public.

***5. List the measurable goals for the public education and outreach program over the next calendar year, and dates by which the measurable goals will be achieved.***

The measureable goals for the public education and outreach program over the next reporting year will largely be dependent on the conditions and compliance dates set by the ADEC for the next Permit term. As stated on the Co-permittees' Application for Permit Renewal, dated November 25, 2009, the Co-permittees proposed to implement the following measures for the next Permit term:

- a. Continue preparation and distribution of storm water educational material to target audiences through local print and broadcast media each year
- b. Expand public education and outreach program to target new audiences
- c. Continue maintaining and promoting a publicly-accessible and jointly-sponsored storm water website

***6. Identify the persons responsible for implementing and coordinating the education activities.***

The following individuals were responsible for implementing and coordinating the public education and outreach activities during the 2011/2012 reporting year:

COF:	Jackson Fox, Environmental Manager
CONP:	Bill Butler, Director of City Services
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
DOT&PF:	Brett Nelson, Maintenance Environmental Analyst

The Co-permittees would also like to thank Jennifer Schmetzer of the FNSB and Joni Scharfenberg of the FSWCD, for their significant contributions to the public education and outreach program during the 2011/2012 reporting year, and as members of the FSWAC.

**Compliance with Permit Requirements**

To date, the Co-permittees have met all requirements detailed under Minimum Control Measure 1 and Section II.B.1 of the Permit. The following table provides a summary of the public education and outreach requirements, their compliance date, and status as of May 2012.

<b>Permit Section</b>	<b>SWMP Component</b>	<b>Compliance Date</b>	<b>Status (as of May 2012)</b>
II.B.1.a	Plan and implement public education program for local community	June 1, 2006	Complete
II.B.1.b	Distribute storm water educational materials to target audiences	Annually, in April of each year	Complete, ongoing
II.B.1.c	Prepare and distribute outreach materials to print and broadcast media	Annually, in April of each year	Complete, ongoing

*II.B.2 Public Involvement / Participation*

The requirements of Minimum Control Measure 2, *Public Involvement / Participation*, are presented below with discussion of the Co-permittees' efforts to meet these requirements based on the Annual Report requirements presented in Section II.B.2.h and Appendix A of the Permit.

**1. Describe the activities and target audiences for public involvement that the program accomplished for the preceding 12-month period, including any monitoring and / or survey results, number of storm drains stenciled, etc.**

The target audiences for the public involvement / participation efforts are the same as those for the education and outreach program outlined under Minimum Control Measure 1 in the previous section. The following summarizes the public involvement / participation activities accomplished under Minimum Control Measure 2 during the 2011/2012 reporting year.

Fairbanks Storm Water Management Program Webpage

The FNSB maintains the Fairbanks Storm Water Management Program Webpage at <http://co.fairbanks.ak.us/PWorks/StormWaterManagementProgram/> on behalf of the both the FNSB and Co-permittees. The webpage provides a definition of storm water, background on why storm water is regulated, overview of the Fairbanks SWMP, agency contacts, directions on how to report illicit discharges, news and events, FSWAC meeting dates, and a copy of the Co-permittees' and FNSB's Phase II APDES Permits and current Annual Reports. The webpage also provides viewers links to the ADEC Storm Water Program webpage, ADEC Construction General Permit, Alaska Storm Water Guide, COF and CONP Storm Water Management Program Guide, FNSB BMP Design Guide, DOT&PF SWPPP Guide, and a map and storm water plan submittal flowchart for the Fairbanks Urbanized Area. A current copy of the webpage is included in Appendix A. Both the COF and FNSB maintain a link to the webpage on their respective home pages at <http://ci.fairbanks.ak.us/> and <http://co.fairbanks.ak.us/>.

2011 Annual Stream Cleanup Day

The FSWAC, with help from the TVWA, FSWCD, and Fairbanks Host Lions Club, held the seventh Annual Stream Cleanup Day in Fairbanks along Noyes Slough and the Chena River on June 11, 2011. The event was advertised in the Fairbanks Daily News-Miner, on television via news reporting stations, over the radio with a 30-minute spot on a radio talk show, via email and local bulletin boards with a flyer, and via mail to local residents living along the slough. The event began at 9:00 a.m. with a safety orientation talk followed by participant assignments to the various mapped sections of the 5.5-mile long Noyes slough and the 2.5-mile long section of the Chena River running through downtown Fairbanks. The cleanup effort proceeded by canoe and on foot. The FSWAC provided the canoes, bags, gloves, safety kits, food, drinks, event t-shirts,

and garbage truck pick-up for the event, as well as vans to provide transportation to and from pickup and drop-off locations.

In total, 40 people participated in the event, removing 1,000 pounds of debris from Noyes Slough and the Chena River including litter, bags, tires, vehicle parts, bicycles, and various other items. Cleaning up the slough and river presented an outstanding public involvement and participation opportunity. Participants included residents who live or work along the waterways, as well as a number of other citizens and community groups who responded to our advertisements. Copies of the 2011 Annual Stream Cleanup Day advertisements, photos, participants list, and other associated materials are included in Appendix B.

#### Volunteer Water Quality Monitoring and AAS Programs

The FSWAC entered into a Memorandum of Agreement (MOA) with the TVWA in April 2008 to implement the Volunteer Water Quality Monitoring and AAS Programs on behalf of the FSWAC. Under the terms of the MOA, the TVWA agreed to administer the Volunteer Water Quality Monitoring and AAS Programs with the support of the FSWAC. For successful implementation of the programs, the TVWA maintains guidelines for the programs and an up-to-date list of stream section adoptees and the stream sections they are responsible for maintaining. The FSWAC provides program support by providing annual funding and additional, in-kind assistance to the TVWA, as well as hosting the Annual Stream Cleanup Day.

Annual program record keeping and reporting requirements include records of program meetings held, number of adoptees participating in the programs, identification and total length of each adopted stream section, approximate percentage of adopted stream length compared to the overall length, and summary of cleanup efforts performed by adoptees and other volunteers. A copy of the TVWA's 2011 Annual Report of Volunteer Water Quality Monitoring and AAS Program Activities is included in Appendix B. Noteworthy program accomplishments in 2011 were multiple water quality sampling training sessions held between June 13 and June 30, 12 group and individual volunteers trained, and a total of 13 sites sampled taken from the Chena River, Noyes Slough, Engineer Creek, Spinach Creek, Goldstream Creek, Tanana River, and Sheep Creek. In addition, the TVWA held a second stream cleanup event on September 10, 2011, along Noyes Slough. At this event, 14 volunteers participated and collected an estimated 300 pounds of litter from the slough.

#### Storm Drain Stenciling Program

The FSWAC has continued its Storm Drain Stenciling Program in the 2011/2012 reporting year. The purpose of the stencils is to identify storm drain inlets to the public, educate the public on where storm water drains outfall, and discourage illicit discharges. A total of 91 storm drain inlets were stenciled during the 2011/2012 reporting year. A picture of a stenciled storm drain inlet and a table showing the location and number of storm drains stenciled to date is included in Appendix B.

Storm Water Advisory Committee

As previously discussed under Minimum Control Measure 1, the FSWAC has regularly convened meetings since 2003. The FSWAC meets on a monthly basis to coordinate and carry out the development, implementation, and review of the SWMP. Common topics addressed by the committee include:

- Identification of threats to local water bodies, and recognition of the importance of detecting and reporting illicit discharges
- Preparation and review of local storm water management regulations
- Development and implementation of local storm water management programs
- Selection and implementation of BMPs
- Review of the effectiveness of permit activities
- Coordination of group permittee activities

Current committee members and participants include representatives from the each of the Co-permittees, FNSB, ADEC, TVWA, and FSWCD. The committee also has two Citizen Members – one from North Pole and one from Fairbanks, each serving as a representative of the community in which they live. All FSWAC meetings are open to the public, and advertised on the Fairbanks Storm Water Management Webpage. Copies of the meeting minutes for the 2011/2012 reporting year and the 2012 meeting schedule are included in Appendix B.

***2. Describe the procedures for receiving and reviewing public comments.***

The Co-permittees maintain a log of public comments related to storm water. Comments are accepted via telephone, electronic mail, postal mail, and in person; and directed to appropriate personnel to be addressed. Public comments received during the 2011/2012 reporting year, including documentation of their resolution if required, are included in Appendix B.

***3. Describe the measurable goals for the public involvement / participation program over the next 12-month period, and dates by which the Co-permittees will accomplish each of the upcoming measurable goals.***

The measureable goals for the public involvement / participation program over the next reporting year will largely be dependent on the conditions and compliance dates set by the ADEC for the next Permit term. As stated on the Co-permittees' Application for Permit Renewal, dated November 25, 2009, the Co-permittees proposed to implement the following measures for the next Permit term:

- a. Continue organizing and hosting an Annual Stream Cleanup Event
- b. Continue coordinating and implementing an AAS and Volunteer Water Quality Monitoring Program

- c. Develop and distribute a new Community Storm Water Survey to local residents to gauge the effectiveness of past public education and outreach efforts
- d. Continue conducting a Storm Drain Stenciling Program each year
- e. Continue convening monthly Storm Water Advisory Committee meetings

***4. Identify the persons responsible for implementing and coordinating the public involvement / participation activities.***

The following individuals were responsible for implementing and coordinating the public involvement / participation activities during the 2011/2012 reporting year:

COF: Jackson Fox, Environmental Manager  
CONP: Bill Butler, Director of City Services  
UAF: Thaddeus Williamson, Environmental Health, Safety, and Risk  
Management Department Safety Officer  
DOT&PF: Brett Nelson, Maintenance Environmental Analyst

The Co-permittees would also like to thank the FNSB, FSWCD, and TVWA for their significant contributions to the public involvement / participation activities during the 2011/2012 reporting year. All three entities provided much-needed support to the FSWAC during the 2011 Stream Cleanup Day. The TVWA has also greatly benefitted the FSWAC by volunteering to implement the Volunteer Water Quality Monitoring and AAS Programs on behalf of the Co-permittees.

Compliance with Permit Requirements

To date, the Co-permittees have met all requirements detailed under Minimum Control Measure 2 and Section II.B.2 of the Permit. The following table provides a summary of the public involvement / participation requirements, their compliance date, and status as of May 2012.

Permit Section	SWMP Component	Compliance Date	Status (as of May 2012)
II.B.2.b	Make the SWMP and all Annual reports available to the public	Ongoing	Complete, ongoing
II.B.2.c	Host an annual Community Stream Cleanup Day	January 1, 2007, and annually thereafter	Complete, ongoing
II.B.2.d	Organize an ongoing Volunteer Monitoring and AAS Program	June 1, 2007, and ongoing thereafter	Complete, ongoing
II.B.2.e	Develop and distribute a Storm Water Attitude Survey	June 1, 2009	Complete
II.B.2.f	Develop and implement a Storm Drain Stenciling Program	June 1, 2006, and ongoing thereafter	Complete, ongoing
II.B.2.g	Convene a Storm Water Advisory Committee on a regularly scheduled basis	Ongoing	Complete, ongoing

*II.B.3 Illicit Discharge Detection and Elimination*

The requirements of Minimum Control Measure 3, *Illicit Discharge Detection and Elimination*, are presented below with discussion of the Co-permittees' efforts to meet these requirements based on the Annual Report requirements presented in Section II.B.3.h and Appendix A of the Permit.

**1. Describe the criteria used to prioritize investigations in areas suspected of having illicit discharges.**

Criteria to prioritize illicit discharge investigations are based on available water quality information, land and building use, and history of public complaints and confirmed illicit discharges. This process relies heavily on the knowledge of Co-permittee staff members of the MS4 flow paths and facilities' potential to discharge. The current prioritization of facilities to be examined during the illicit discharge investigation process is as follows:

- Priority 1: Heavy industrial and commercial areas; and automobile-related facilities
- Priority 2: Dry cleaners/laundromats; construction companies; manufacturing companies; laboratories; and medical facilities
- Priority 3: Older, residential neighborhoods; retail establishments; and schools

**2. Describe the procedures used to locate and remove illicit discharges, including detection methods.**

Dry-weather screening of outfalls in high-priority areas (i.e. heavy industrial and commercial areas) is the primary method of detecting illicit discharges. The Co-permittees are, and will continue to, survey outfalls within their respective jurisdictions on a monthly basis during the summer. All Co-permittee Public Works and Maintenance staff are also trained and directed to check outfalls for flow during dry weather conditions while performing other work in areas where the outfalls are located. Any color, odor, turbidity, and floatable matter in dry-weather flow will be noted in order to help identify possible sources of the discharge. Once detected, an illicit discharge will be tracked back to its source by tracing the discharge upstream through manhole observations, until a manhole junction is reached that shows no evidence of discharge, indicating that the non-storm water flow originates downstream of that manhole junction. Identification of the responsible party will then be determined by examining and investigating nearby facilities in order of the aforementioned criteria.

To aid in the detection and elimination of illicit discharges, and in accordance with the requirements of Minimum Control Measure 3, the Co-permittees have additionally taken steps to (1) sample outfalls in the spring and late summer when flow is prevalent to obtain background data on storm water quality discharging from the MS4; (2) prepare a comprehensive map of the MS4, including all portions of the MS4 owned by the Co-permittees and FNSB; and (3) conduct a

hydrologic study of all roadway drainage structures to determine whether flows from those structures drain to Waters of the U.S.; as follows:

Outfall Discharge Monitoring

During the 2011/2012 reporting year, the Co-permittees continued water sampling efforts at outfall locations identified in the February 2006 *Monitoring Program Plan including Quality Assurance Requirements*. In total, ten outfalls were sampled in September 2011 and eight outfalls were sampled in April 2012. The Co-permittees plan to continue annually sampling outfalls in the spring and late summer to build base level parameters for detection of illicit discharges. Copies of the Outfall Discharge Monitoring Reports and 2006-2012 Summary of Analytical Results are included in Appendix C.

Comprehensive MS4 Map / Hydrologic Study

The FNSB and Co-permittees have completed development the comprehensive MS4 map of all storm water conveyance systems within the Fairbanks Urbanized Area. The map currently resides in the FNSB's Geographical Information System, and contains locations of all jurisdictional boundaries, storm drain inlets and outfalls, outfall receiving waters, and FNSB and Co-permittee owned and operated facilities. In conjunction with the mapping efforts, a hydrologic study was also performed to delineate area watershed boundaries and identify storm water flow paths to Waters of the U.S. A copy of the map and hydrologic study was appended to FNSB's 2008 Annual Report.

**3. *Provide a summary of all dry weather testing conducted to date, and of Co-permittee activity to remove any identified illicit discharges.***

The purpose of the dry weather screening is to detect and eliminate ongoing, unpermitted non-storm water discharges to the MS4. Screening is conducted in the summer months during dry weather periods when no storm water flow is occurring. When non-storm water discharges are detected, a water sample is taken from the outfall and subsequently tracked up-drain from the discharge point to the source using the MS4 Map.

The Co-permittees began conducting dry weather screening of outfalls on the Chena River from Fort Wainwright downstream to Noyes Slough in June 2007. In August 2008, the Co-permittees continued dry-weather outfall screening along the Chena River where the last effort ended in 2007 at the entrance of Noyes Slough downstream to Chena Pump Road. In September 2009, the Co-permittees performed dry-weather outfall screening along each segment of Noyes Slough, Chena Slough, and Beaver Springs having outfalls that are owned and operated by the Co-permittees. In September 2011, the Co-permittees again screened outfalls along the entire length of Noyes Slough, as well as the full extent of the Chena River through Fairbanks city limits starting at the Fort Wainwright military boundary downstream to the University Avenue bridge. Completion of these screening efforts has fulfilled the Co-permittees' requirements under

Section II.B.3.g of the Permit to perform dry-weather screening of at least 50% of the co-permittees' outfalls by the expiration date of the Permit. All future dry-weather outfall screening efforts will be performed under the terms and conditions of the next Permit.

All other illicit discharges detected by Co-permittee staff during the 2011/2012 reporting year, as well as their follow-up investigations and resolutions, are documented in the Illicit Discharge Log included in Appendix C.

***4. Include a copy of the established ordinance or other regulatory mechanism used to prohibit illicit discharges into the MS4. If the permittee has yet to develop this local requirement, describe the plan and schedule for doing so, and progress towards implementation.***

The COF and CONP are the only entities of the four Co-permittees which have municipal authority to adopt and enforce Ordinances. The COF approved and adopted an Illicit Discharge Ordinance (No. 07-5703) in July 2007. A copy of this Ordinance was included in the 2008 Annual Report. The CONP followed suit by adopting a similar ordinance to that of the COF on November 3, 2008. A copy of the CONP Illicit Discharge Ordinance (No. 08-21) was included in the 2009 Annual Report. The two ordinances are nearly identical in content, which provides users of the MS4 a clear understanding of the type of discharges and acts prohibited throughout the Fairbanks Urbanized Area, regardless of the separate jurisdictions of the municipal authorities.

***5. Describe the enforcement policy and jurisdiction.***

As stated in the Illicit Discharge Ordinances, whenever the COF or CONP finds that a person, business, or public entity has violated a prohibition of the Ordinances, the COF or CONP will order compliance by verbal or written notice of the violation to the responsible party. The notice may require the performance of monitoring, analyses, and reporting; elimination of illicit connections, discharges, practices, or operations; abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property; payment of a fine to cover administrative and remediation costs; and implementation of source control or treatment BMPs. If the abatement of a violation and/or restoration of affected property are required, the notice will provide a deadline for completion of the remediation or restoration. The notice will also advise that, should the violator fail to remediate or restore affected property within the established deadline, the work will be performed by the COF or CONP or a designated contractor, and the expense thereof will be charged to the violator. In such cases where investigations indicate the illicit discharge(s) originates outside the COF's and CONP's jurisdictions, the Co-permittees will notify the appropriate agency which has jurisdiction, namely the FNSB, ADEC, or EPA.

The COF's and CONP's jurisdiction to enforce the Illicit Discharge Ordinance applies to the MS4, in its entirety, within the Fairbanks Urbanized Area inside the City Limits of Fairbanks and North Pole; including the portions of the MS4 with State of Alaska ROWs located within the Fairbanks

Urbanized Area inside the City Limits of Fairbanks and North Pole which are owned or operated by the DOT&PF. The FNSB has jurisdiction over the portion of MS4 owned and operated by UAF and DOT&PF within the Fairbanks Urbanized Area outside the City Limits of Fairbanks and North Pole.

***6. Describe the methods used over the previous 12-month period to inform the public and/or train public employees about illicit discharges and the improper disposal of waste.***

As discussed under Minimum Control Measures 1 and 2, efforts were made during the 2011/2012 reporting year to inform the public about illicit discharges and improper disposal of waste. Efforts included (1) maintaining the Fairbanks Storm Water Management Webpage, which includes agency contacts from each of the Co-permittees and FNSB, and procedure for reporting illicit discharges; (2) incorporating information about the types and causes of illicit discharges into the storm water educational presentations to local schools and guest presentation to a local interest group; (3) implementing the Storm Drain Stenciling Program, which created public awareness about where storm water goes after it enters a storm drain inlet; and (4) mailing brochures to local snow removal and landscaping contractors to apprise them of the new COF, CONP, and FNSB illicit discharge ordinances.

Efforts to train Co-permittee staff to help detect illicit discharges have also continued during the 2011/2012 reporting year, as follows:

City of Fairbanks

The COF Department of Public Works crews range in size from approximately 50 during the winter snow removal and summer construction seasons, down to approximately 35 during spring break-up and in the fall after the construction season. Their responsibilities include refuse collection, constructing roadway improvements, cleaning and maintaining streets and the storm drain system, constructing improvements to storm drain system (i.e. installation of new catch basins, manholes, and laterals), and maintenance of 14 City-owned and managed facilities comprising over 256,000 square feet of building space. The COF's MS4 is composed of 477,400 linear feet of pipe, 2,193 catch basins, 407 manholes, seven Stormceptors, 57 outfalls to the Chena River, and 36 outfalls to the Noyes Slough. The COF also has approximately 350 lane miles of road.

The COF Director of Public Works provides trainings to Public Works Lead and Field personnel each spring to apprise them of the Phase II APDES Permit requirements related to illicit discharges. All personnel are requested in the field to maintain, to the best of their ability, a continued surveillance of city streets, ROW, and storm drain system, including area businesses discharging curb-side and any illegal sub-grade connections observed at area construction sites. In addition, two personnel dedicated to cleaning and maintenance of the storm drain system, as well as various crews constructing improvements, are instructed to look for any flows or

discharges that are not consistent with the seasonal elements. All personnel are directed to the Director of Public Works immediately if dry weather flow is observed, or odors or visual inspection indicates non-storm water related flows in the system. The COF has also instituted a permit system to control the discharge of building cooling water into the MS4. During dry flow periods, it is important to know where permitted activities occur in order to make it easier to identify illicit discharges. The COF has identified four buildings within the City Limits that discharge cooling water into the MS4, and has issued permits and collects annual discharge fees from these four facilities.

#### City of North Pole

The CONP Department of Public Works consists of two personnel who perform and direct summer street maintenance with the assistance of local contractors. Street maintenance includes pavement repair, roadside brush cutting, signage maintenance and repair, inspection, cleaning and repair of drainage structures including culverts, catch basins, storm drains, and roadside ditches. Each spring, the CONP Director of City Services conducts trainings to apprise personnel of the Phase II APDES Permit requirements related to illicit discharges and surveillance of area construction activities.

#### University of Alaska Fairbanks

The UAF Roads & Grounds Shop consists of 16 fulltime personnel and up to 18 part-time student employees depending on the time of year and available workload. The roads crew's primary duty is to maintain and clean UAF streets and parking lots by performing asphalt repair, routine sweeping and cleaning, and sanding and snow removal during winter months. Additional tasks include trench digging, laying new power lines, repairing hydrants, locating broken water lines, sloping grounds for proper drainage, and moving materials into an ecosystem dump site. There are approximately eight miles of roadway and 52 parking lots covering over 1,000,000 square feet. In the summer, the grounds crew also maintains over 2,200 acres of landscape by mowing, irrigating, fertilizing, top dressing, aerating, edging and pruning. All Roads & Grounds Shop personnel are trained each spring to apprise them of the Phase II APDES Permit requirements related to illicit discharges, surveillance of area campus activities, and BMPs to employ when conducting field work on campus.

#### Alaska Department of Transportation & Public Facilities – Northern Region

DOT&PF Maintenance has an estimated 46 personnel operating within the Fairbanks Urbanized Area, including 35 personnel dedicated fulltime to field work. Similar to the COF and CONP, DOT&PF personnel perform scheduled maintenance of the roadway and drainage systems. All DOT&PF Maintenance personnel are trained each spring to be apprised of the Phase II APDES Permit requirements related to illicit discharges, surveillance of DOT&PF construction sites, and BMPs to employ when conducting fieldwork. Personnel are directed to contact their supervisors immediately when any illicit discharge is detected.

**7. List the measurable goals for the illicit discharge detection and elimination program for the next 12-month period, and the dates by which each permittee will achieve each of the measurable goals.**

The measureable goals for the illicit discharge detection and elimination program over the next reporting year will largely be dependent on the conditions and compliance dates set by the ADEC for the next Permit term. As stated on the Co-permittees' Application for Permit Renewal, dated November 25, 2009, the Co-permittees proposed to implement the following measures for the next Permit term:

- a. Continue maintaining an Illicit Discharge Log of all illicit discharges detected, as well as their follow-up investigations and resolutions
- b. Continue and document enforcement of municipal Illicit Discharge Detection & Elimination ordinances
- c. Conduct a new dry-weather outfall screening effort for non-storm water flows from at least 60-percent of all outfalls
- d. Update Comprehensive MS4 Map to include all industrial facilities with known discharges within the Urbanized Area
- e. Establish a written protocol/plan for updates to the Comprehensive MS4 Map for capital improvement projects affecting the MS4
- f. Train all road maintenance staff for detection of illicit discharges
- g. Update Quality Assurance Project Plan (dated February 2006) for all future analytical storm water monitoring activities
- h. Continue conducting a Storm Water Outfall Monitoring Program

**8. Identify the persons responsible for coordination and implementation of the illicit discharge detection and elimination program.**

The following individuals were responsible for coordination and implementation of the illicit discharge detection and elimination program during the 2011/2012 reporting year:

COF:	Jackson Fox, Environmental Manager Michael Schmetzer, Director of Public Works & City Engineer
CONP:	Bill Butler, Director of City Services
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
DOT&PF:	Brett Nelson, Maintenance Environmental Analyst

Compliance with Permit Requirements

To date, the Co-permittees have met all requirements detailed under Minimum Control Measure 3 and Section II.B.3 of the Permit. The following table provides a summary of the illicit discharge detection and elimination requirements, their compliance date, and status as of May 2012.

Permit Section	SWMP Component	Compliance Date	Status (as of May 2012)
II.B.3.a	Conduct a Hydrologic Study of all roadway drainage structures within the Co-permittees' jurisdiction	June 1, 2008	Complete
II.B.3.b	Develop and implement a plan to detect and address illicit discharges	June 1, 2007	Complete
II.B.3.c/d	Adopt an ordinance to prohibit illicit discharges to the MS4, and effectively prohibit those discharges	June 1, 2008	Complete
II.B.3.e	Inform the public, et al, of the hazards associated with illegal discharges and improper waste disposal	June 1, 2007	Complete, ongoing
II.B.3.f	Finalize a comprehensive storm sewer map	June 1, 2008	Complete
II.B.3.g	Complete dry-weather field screening for non-storm water from 50% of all outfalls	June 1, 2010	Complete

*II.B.4 Construction Site Storm Water Runoff Control*

The requirements of Minimum Control Measure 4, *Construction Site Storm Water Runoff Control*, are presented below with discussion of the Co-permittees' efforts to meet these requirements based on the Annual Report requirements presented in Section II.B.4.g and Appendix A of the Permit.

- 1. Include a copy of the established ordinance or other regulatory mechanism used to require erosion, sediment, and waste control at construction sites. If the Co-permittees have yet to develop the required regulatory mechanism, describe the plan and schedule of doing so.***

The COF and CONP are the only entities of the four Co-permittees which have municipal authority to adopt and enforce Ordinances. The COF approved and adopted a Construction Site Storm Water Runoff Ordinance (No. 07-5702) in July 2007. The COF later elected to amend the Ordinance to streamline and more closely follow the requirements of the Phase II APDES Permit. The amended Ordinance (No. 08-5751) was adopted on May 19, 2008. Copies of the original Ordinance and amended Ordinance were included in the 2008 Annual Report. The CONP followed suit by drafting and adopting a similar Construction Site Storm Water Runoff Ordinance (No. 08-14) to that of the amended COF Ordinance on June 2, 2008. A copy of the CONP Ordinance was included in the 2009 Annual Report. Similarity in these ordinances provides users of the MS4 a clear understanding of the storm water plan review and inspection requirements throughout the Fairbanks Urbanized Area, regardless of the separate jurisdictions of the municipal authorities.

- 2. Provide a summary of the number of sanctions and enforcement actions taken by the Co-permittees to ensure compliance with the construction site ordinance during the previous 12-month period.***

No sanctions or enforcements actions were warranted to be taken during the 2011/2012 reporting year by the COF or CONP in accordance with their Construction Site Storm Water Runoff Ordinances. The construction site storm water runoff plan review and inspection program was added to the Residential and Commercial Building Permit application process at the COF and CONP, which directs all contractors/owners applying for a permit to submit storm water plans in accordance with the requirements of the Ordinances and all applicable review fees before a permit will be issued. The program also apprises contractors/owners their construction site(s) will be inspected at least once per year for proper erosion and sediment controls. In the event that any person holding a permit pursuant to these Ordinances violates the terms of the permit, the COF and CONP may issue a notice of violation, suspend, or revoke the permit. Details on the number of plan reviews conducted and construction site inspected pursuant to the Ordinances are discussed below. No permit violations requiring suspension or revocation occurred during the 2011/2012 reporting year.

***3. Include a copy of the written requirements for appropriate erosion, sediment, and waste control BMPs at construction sites.***

The COF and CONP Construction Site Storm Water Runoff Ordinances adopt by reference the current version, and all future amendments, of the DOT&PF Alaska SWPPP Guide and EPA/ADEC Construction General Permit. The DOT&PF Alaska SWPPP Guide identifies appropriate erosion, sediment, and waste control BMPs for construction sites in Alaska; and is available for download by the public through the DOT&PF website at [http://www.dot.state.ak.us/stwddes/desenviron/pop\\_swppp.shtml](http://www.dot.state.ak.us/stwddes/desenviron/pop_swppp.shtml).

In addition, the COF and CONP published the Fairbanks & North Pole Storm Water Management Program Guide in September 2009. The guide provides an overview of both construction and post-construction storm water management design and construction requirements for new development and redevelopment projects within the Fairbanks Urbanized Area. The focus of the guide is to educate developers, engineers, contractors, and the general public on local storm water pollution control laws, and provide resources for effective structural and non-structural BMPs for the Fairbanks area. Included in the manual is a brief overview of the local storm water management program, agency review requirements, general design considerations, and list of effective BMPs for the Fairbanks area, including discussion of the design and construction requirements for snow disposal sites, septic systems, and parking lots. A two-page handout was also created for local developers, engineers, and contractors that covers the different agencies' jurisdictions and plan submittal requirements for storm water within the Fairbanks Urbanized Area. A copy of the guide and handout were included in the 2010 Annual Report.

In coordination with the 2012 Northern Living Home Show in Fairbanks held the weekend of March 23 – 25, 2011, the COF and FNSB also placed a storm water advertisement in two special sections of the Fairbanks Daily News-Miner newspaper – the Spring Homes & Real Estate section that is published on March 23, and Building Homes & Garden section on April 6. The advertisement targeted local developers/engineers/contractors to make them aware of the local storm water plan review and permitting requirements. A copy of the advertisement is included in Appendix D.

A summary of all of the construction site storm water related trainings held in Fairbanks during the 2011/2012 reporting year is also included in Appendix D.

***4. Provide a summary of the number of site plan reviews conducted by each permittee.***

Three plan reviews were conducted during the 2011/2012 reporting year in accordance with the Construction Site Storm Water Runoff Ordinances. All three of the construction sites were within the COF's jurisdiction, with none in the CONP's jurisdiction.

***5. Describe the procedures for receipt and consideration of information submitted by the public.***

As described under Minimum Control Measure 2, the Co-permittees maintain a log of public comments related to storm water. Comments are accepted via telephone, electronic mail, postal mail, and in person; and directed to appropriate personnel to be addressed. Public comments received during the 2011/2012 reporting year, including documentation of their resolution if required, are included in Appendix B.

***6. Provide a summary of the number of sites inspected during the previous 12-month period, including a description of the site inspection procedures, how sites will be prioritized for inspection, and when and how often a site will be inspected.***

Two site inspections were conducted during the 2011/2012 reporting year by the COF in accordance with the aforementioned storm water plan reviews. Pursuant to the requirements set forth in the Construction Site Storm Water Runoff Ordinances, every permitted construction site that results in a ground disturbance greater than or equal to one acre will be inspected at least once per year for proper erosion and sediment controls. Each inspection involves a tour of the entire construction site, close inspection of each BMP installed, and a secondary review of the storm water plan, which must be maintained onsite. All BMP and/or storm water plan components needing corrective action are documented on an inspection checklist and signed by both the site inspector and onsite contact. Corrective action items may be resolved by verbal agreement, written agreement, re-inspection, and/or fines or temporary stop-work orders.

***7. List the measurable goals for the construction site runoff control program.***

The measureable goals for the construction site storm water plan review and inspection program over the next reporting year will largely be dependent on the conditions and compliance dates set by the ADEC for the next Permit term. As stated on the Co-permittees' Application for Permit Renewal, dated November 25, 2009, the Co-permittees proposed to implement the following measures for the next Permit term:

- a. Continue and document implementation and enforcement of all plan review and inspection activities under the municipal Construction Site Storm Water Runoff Control ordinances
- b. Update and expand the jurisdictional boundary for plan reviews and inspection activities to match the new Urbanized Area boundary for the Fairbanks and North Pole areas from the 2010 Census
- c. Conduct at least one training session per year for the local developer/engineering/construction audience on the ordinance requirements and appropriate selection of BMPs for construction site storm water runoff control

- d. Continue implementation of SWPPP review process; enforcement of erosion, sediment, and pollution control requirements (through contract compliance); and site inspection program for DOT&PF and UAF construction projects
- e. Continue certification and training requirements for SWPPP preparers and construction supervision on DOT&PF projects

**8. Identify the persons responsible for coordination and implementation of the construction site runoff control program.**

The following people were responsible for coordination and implementation of the construction site runoff control program during the 2011/2012 reporting year:

COF: Jackson Fox, Environmental Manager  
CONP: Bill Butler, Director of City Services  
UAF: Thaddeus Williamson, Environmental Health, Safety, and Risk  
Management Department Safety Officer  
DOT&PF: Brett Nelson, Maintenance Environmental Analyst

Compliance with Permit Requirements

To date, the Co-permittees have met all requirements detailed under Minimum Control Measure 4 and Section II.B.4 of the Permit. The following table provides a summary of the construction site storm water runoff control requirements, their compliance date, and status as of May 2012.

Permit Section	SWMP Component	Compliance Date	Status (as of May 2012)
II.B.4.a	Develop, implement, and enforce a construction site storm water runoff control program for activities disturbing one or more acres of land	June 1, 2007	Complete
II.B.4.b	Adopt an ordinance to require construction site operators to practice erosion, sediment, and waste control	June 1, 2007	Complete
II.B.4.c	Publish and distribute written requirements for construction site BMPs	June 1, 2007	Complete
II.B.4.d	Develop procedures for reviewing site plans and receiving public comment	June 1, 2007	Complete
II.B.4.e	Develop and implement procedures for site inspections and enforcement	June 1, 2008	Complete
II.B.4.f	Conduct training for contractors/developers/engineers on the construction ordinance(s) and BMP requirements	June 1, 2008	Complete, ongoing

*II.B.5 Post-Construction Storm Water Management in New Development and Redevelopment*

The requirements of Minimum Control Measure 5, *Post-Construction Storm Water Management in New Development and Redevelopment*, are presented below with discussion of the Co-permittees' efforts to meet these requirements based on the Annual Report requirements presented in Section II.B.5.f and Appendix A of the Permit.

- 1. Include a copy of the BMP design manual containing structural and non-structural BMPs that will be used to manage post-construction runoff from new development and redevelopment projects within the MS4s; and specific priority areas for this program.***

In September 2009 the COF and CONP published an all-inclusive BMP design manual, titled the Fairbanks & North Pole Storm Water Management Program Guide. The guide provides an overview of both construction and post-construction storm water management design and construction requirements for new development and redevelopment projects within the Fairbanks Urbanized Area. The focus of the guide is to educate developers, engineers, contractors, and the general public on local storm water pollution control laws, and provide resources for effective structural and non-structural BMPs for the Fairbanks area. Included in the manual is a brief overview of the local storm water management program, agency review requirements, general design considerations, and list of effective BMPs for the Fairbanks area, including discussion of the design and construction requirements for snow disposal sites, septic systems, and parking lots. A copy of the published guide was included in the 2010 Annual Report.

Within the last year, the COF also completed a mapping project to identify which subdivisions in the Fairbanks area are in the greatest need of Green Infrastructure applications (i.e. permanent/post-construction BMPs). The effort produce three new maps showing what portion of the Fairbanks area was served by a piped storm drain system, land use types (residential, commercial/public exempt, and industrial) within this area, and a five-tier ranking scheme to categorize each subdivision by their level of need for permanent/post-construction BMPs to help improve storm water quality and reduce the quantity of runoff to the piped storm drain system. The ranking scheme included factors such as storm water discharge location, percent of impervious land cover, amount of area served by a pipe storm drain system, and amount of roads with curb and gutter as opposed to ditches and/or swales. Copies of the maps produced by this effort are included in Appendix E. The maps will undoubtedly serve as a useful planning tool for the Fairbanks area Post-construction Storm Water Management Program.

***2. Provide an explanation of the design and performance features of the chosen BMPs that are intended to minimize water quality impacts.***

The Fairbanks Urbanized Area has unique cold climate characteristics. Specific challenges include the susceptibility of MS4 pipes to freezing due to deep winter frost penetration, ice formation on ponded water surfaces, reduction in biological activity due to cooler year-round temperatures, short growing season, permafrost, frost heave action, and high pollutant loads contained in spring snowmelt. Steeper topographic conditions in areas with high silt also exist along the urban fringe. Erosion and sediment transport can be common in storm water ditching systems in these areas. Recommended non-structural BMPs included in the guide focus on project design and good housekeeping. Non-structural BMPs that can be easily implemented and are effective in our climate include preserving or utilizing natural vegetation; taking into account existing topography and natural drainage paths; clustering development; implementing sweeping and cleaning programs; siting snow storage facilities and vehicle/equipment washing areas in appropriate locations; and proper handling and disposal of hazardous waste and other debris. Recommended structural BMPs focus on velocity control and water treatment practices. Structural BMPs that can be easily implemented and are effective in our climate include retention/detention ponds, vegetated strips or swales, infiltration trenches, and oil and grit separators. Performance of these structural BMPs is based on limiting post-development runoff volumes, treating the first flush pollutant load, and providing appropriate treatment thereafter.

***3. Include a copy of the established ordinance or other regulatory mechanism used to address post-construction runoff control. If the permittee has yet to develop the required regulatory mechanism, describe the plan and schedule for doing so.***

The COF and CONP are the only entities of the four Co-permittees which have municipal authority to adopt and enforce Ordinances. The COF approved and adopted a Post-Construction Storm Water Management Ordinance (No. 07-5704) in July 2007 to meet the requirements of Minimum Control Measure 5 of the Permit. A copy of this Ordinance was included in the 2008 Annual Report. The COF later elected to amend the Ordinance to streamline and more closely follow the requirements of the Phase II APDES Permit. The amended Ordinance (No. 09-5780) was adopted on August 10, 2009. The CONP followed suit by drafting and adopting a similar Post-Construction Storm Water Management Ordinance (No. 09-10) to that of the amended COF Ordinance on September 21, 2009. A copy of the amended COF Ordinance and new CONP Ordinance were included in the 2010 Annual Report. Similarity in these ordinances provides users of the MS4 a clear understanding of the post-construction storm water management requirements throughout the Fairbanks Urbanized Area, regardless of the separate jurisdictions of the municipal authorities.

***4. Describe how long term operations and maintenance of the selected BMPs will be ensured, including the organizations responsible, and their expected operations and maintenance schedule.***

In accordance with the requirements set forth in the COF and CONP Post-Construction Storm Water Management Ordinances, developers are required to submit a Permanent Storm Water Control Plan (PSWCP) to the COF and CONP for review and approval prior to being granted a Residential or Commercial Building Permit. Included in the PSWCP, a signed statement must be submitted that the owner of the site will operate, maintain, and/or schedule all permanent BMP(s) in accordance with the PSWCP. The PSWCP must also be developed by a Certified Professional in Erosion and Sediment Control or a Professional Engineer registered in the State of Alaska.

***5. Describe plans to inform and educate developers and the public about appropriate project designs that minimize water quality impacts.***

The COF, FNSB, and ADEC conducted a joint storm water workshop on April 7, 2010 to educate local developers, engineers, and contractors about the new construction site storm water runoff and post-construction storm water management requirements within the Fairbanks Urbanized Area. The three-hour workshop was held in the FNSB Assembly Chambers, and approximately 20 people attended with a good mix of surveyors, contractors, and environmental and engineering consultants. Copies of the workshop slide show and participant sign-in sheet were included in the 2010 Annual Report.

***6. List the measurable goals for the post-construction runoff control program, including the dates by which the permittee will achieve each of the measurable goals.***

The measureable goals for the post-construction site storm water management program over the next reporting year will largely be dependent on the conditions and compliance dates set by the ADEC for the next Permit term. As stated on the Co-permittees' Application for Permit Renewal, dated November 25, 2009, the Co-permittees proposed to implement the following measures for the next Permit term:

- a. Continue and document implementation and enforcement of all plan review activities under the municipal Post-construction Storm Water Management Ordinances
- b. Update and expand the jurisdictional boundary for plan reviews activities to match the new Urbanized Area boundary for the Fairbanks and North Pole areas from the 2010 Census
- c. Conduct at least one training session per year for the local developer/engineering audience on the ordinance requirements and appropriate selection of BMPs for post-construction storm water management

- d. Update the Fairbanks & North Pole Storm Water Management Program Guide (dated September 2009) to include discussion of green infrastructure / low impact development strategies for the sub-arctic climate
- e. Continue development and implementation of post-construction storm water program, including cooperating with the Fairbanks North Star Borough's development of a green infrastructure / low impact development strategy, utilizing existing DOT&PF and UAF manuals and guidance where appropriate

**7. Identify the persons responsible for coordination and implementation of the post-construction storm water management program.**

The following people were responsible for coordination and implementation of the post-construction storm water management program during the 2011/2012 reporting year:

COF: Jackson Fox, Environmental Manager  
CONP: Bill Butler, Director of City Services  
UAF: Thaddeus Williamson, Environmental Health, Safety, and Risk  
Management Department Safety Officer  
DOT&PF: Brett Nelson, Maintenance Environmental Analyst

Compliance with Permit Requirements

To date, the Co-permittees have met all requirements detailed under Minimum Control Measure 5 and Section II.B.5 of the Permit. The following table provides a summary of the post-construction storm water management requirements, their compliance date, and status as of May 2012.

Permit Section	SWMP Component	Compliance Date	Status (as of May 2012)
II.B.5.a	Develop, implement, and enforce a program to address post-construction runoff from new development and redevelopment	June 1, 2009	Complete
II.B.5.b	Adopt an ordinance requiring BMPs to reduce pollutants in storm water runoff from new development and redevelopment	June 1, 2009	Complete
II.B.5.c	Publish and distribute a BMP design manual for post-construction storm water management	June 1, 2009	Complete
II.B.5.e	Develop and conduct at least one workshop for developers and engineers on the ordinance(s) and BMP design manual	June 1, 2009	Complete

*II.B.6 Pollution Prevention and Good Housekeeping for Municipal Operations*

The requirements of Minimum Control Measure 6, *Pollution Prevention and Good Housekeeping for Municipal Operations*, are presented below with discussion of the Co-permittees' efforts to meet these requirements based on the Annual Report requirements presented in Section II.B.6.e and Appendix A of the permit.

**1. Describe the activities, maintenance schedules, and long term inspection procedures for controls to reduce discharge of floatables and other pollutants to the MS4.**

Within their respective ROWs, each Co-permittee is responsible for snow removal and street sanding operations during the winter months and street sweeping and storm drain cleaning operations during the summer months. Beginning in 2006, the Co-permittees instituted an information tracking system for these activities to assist with reducing the discharge of pollutants, including sediment, to the MS4.

Winter Maintenance Activities

Comparatively, the DOT&PF maintains major and minor arterials while the COF and CONP maintain major and minor collectors and local streets. Snow plowing, street sanding, and snow removal is primarily focused on routes to the local hospital, area schools, primary business districts, and core downtown areas of COF and CONP; followed by local streets within residential neighborhoods.

The Co-permittees utilize designated snow storage sites that are generally suitable for onsite containment of accumulated sediment and miscellaneous debris. Snow removal and storage operations are tracked by date of operation, area and subarea, number of loads and cubic yards hauled, haul time, and snow storage site used. Debris is collected following spring break-up and disposed at the FNSB Solid Waste Landfill. Copies of the Co-permittees' snow removal logs are included in Appendix F.

Street sanding operations are similarly scheduled by area of priority depending on street surface conditions, and tracked by date of operation, area, and number of loads, cubic yards, and tonnage spread. Copies of the Co-permittees' street sanding logs, as available, are included in Appendix F.

Summer Maintenance Activities

During spring break-up, which typically commences in early to mid-April, the Co-permittees focus on ensuring the MS4 is operating effectively. Steam is often used to open frozen storm drains and culverts, and pumps are used to transfer water from areas of ponding, in an attempt to maintain flow in the MS4 and minimize damage to residential, commercial, and public property.

Street sweeping operations generally commence after spring break-up in late April through early May, and continue until all arterials, collectors, and local streets are clean of aggregate. Street sweeping operations are tracked by date of operation, broom number, area and subarea, street location, number of loads and cubic yards hauled, haul time, and storage site used. During the summer months, the Co-permittees also clean and maintain the MS4 using a vacuum truck to flush and pump accumulated sediment and debris from catch basins, lateral lines, manholes, sedimentation collection devices, and culverts. Storm drain cleaning operations are tracked by date of operation, equipment number/type, area and subarea, street location, number of loads hauled, haul time, and storage site used, and gallons of liquid and cubic yards of solids collected. Copies of the Co-permittees' street sweeping and storm drain cleaning logs, as available, are included in Appendix F.

During the summer months, area businesses and local residents also perform construction activities within the ROW, including pavement cuts and excavations, construction of new or repairs to existing utility mains and services, new driveways, and sidewalks. Within our respective jurisdictions, the Co-permittees conduct plan reviews, issue permits, and inspect construction activities through substantial completion to ensure all work is performed according to applicable standards, erosion and sediment controls are in place and properly maintained, and the MS4 is protected.

The Co-permittees also maintain their respective ROWs during the summer months by clearing vegetation and collecting debris from roadside ditches that are part of the MS4. During routine curbside collection of residential garbage, crews are further instructed to stop and collect any debris that is observed to be illegally disposed within the ROW. If crews encounter hazardous materials that could impact public health or the environment they are instructed to contact their supervisor, who will oversee appropriate assessment, cleanup, transport, and disposal.

***2. Describe the employee training program used to prevent and reduce storm water pollution including the targeted department personnel, frequency of such training, and a copy of training materials.***

The Co-permittees presently conduct training sessions for department personnel two times per year on the prevention and reduction storm water pollution from municipal activities. During the spring, personnel are trained in MS4 maintenance, which includes an overview of the Phase II APDES Permit requirements and tracking protocols and proper documentation of street sweeping and storm drain cleaning operations. During the fall, personnel are trained in snow storage site operation and maintenance, which includes an overview of the Phase II APDES Permit requirements and tracking protocol and proper documentation of snow removal and street sanding operations. Each training session targets public works, ground, building maintenance, and technical staff in preparation for winter and summer seasonal work changes. Training materials include a copy of the Permit and most recently updated and agency-specific street sweeping, storm drain cleaning, street sanding, and snow removal logs.

- 3. Provide a summary of the controls for reducing or eliminating the discharge of pollutants from areas owned or operated by the Co-permittees, including but not limited to streets, roads, and highways; maintenance and storage yards; waste transfer stations; fleet or maintenance shops with outdoor storage areas; salt / sand storage locations; and snow disposal sites operated by the Co-permittees.***

In coordination and compliance with EPA Hazardous Waste Regulations, each of the Co-permittees control discharges of hazardous wastes and other pollutants to the MS4 from their respective facilities and ROWs such as streets, parking lots, maintenance yards, storage yards, waste transfer stations, maintenance shops, sand and gravel storage locations, and snow storage sites. Permanent controls include oil recycling, glycol recycling, sand and gravel recycling, designated vehicle wash down areas, sumps and oil/water separators in vehicle storage buildings, wash racks that drain to the sanitary sewer, and containment and retention BMPs at sand/gravel and snow storage sites.

- 4. Describe procedures to ensure proper disposal of waste removed from the MS4 and MS4 operations including dredge spoils, accumulated sediments, floatables, and other debris.***

The COF currently stores sediment waste removed from the MS4 in stockpiles at their Department of Public Works Facility and other designated dump sites on City-owned property, which are well-sited and graded for onsite containment of accumulated sediment waste. Sediment wastes are then screened and recycled each year for reuse in street sanding and other Department of Public Works operations. Floatables and other debris are collected and disposed at the permitted FNSB Solid Waste Landfill. The CONP, UAF, and DOT&PF also dispose of sediment waste, floatables, and other debris at the FNSB Landfill.

Day-to-day MS4 operations, and the use of heavy equipment therein, generates small quantities of non-recyclable oils and fuels, non-recyclable hydraulic fluid, solvents and degreasers, petroleum-contaminated pads, and empty petroleum product containers. All hazardous wastes generated are properly transferred and released to the FNSB Household Hazardous Waste Facility in Fairbanks or a licensed Hazardous Waste Contractor for processing and off-site disposal.

- 5. Describe procedures to assure that new flood management projects are assessed for impacts on water quality, and existing projects are assessed for incorporation of additional water quality protection devices or practices.***

Assessment of flood management projects for impacts on water quality does not fall under the purview of the Co-permittees, unless the projects are privately funded and occur on private property within the Urbanized Area of Fairbanks or North Pole. Such projects would require adherence to the COF or CONP Construction Site Storm Water Runoff Ordinance and Post-

Construction Storm Water Management Ordinance. All of other projects in the Fairbanks area require federal, state, and FNSB authorization, often in the form of a permit.

Flood management projects generally result in dredge or fill in wetlands and other waterbodies, which fall under the purview of the U.S. Army Corps of Engineers (USACE) and ADEC. The USACE requires a Department of the Army Permit for all dredge and fill activities regulated under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. The ADEC also requires a Certificate of Reasonable Assurance be issued for the project(s) in accordance with Section 401 of the CWA before the Department of the Army Permit can be issued. The Certificate of Reasonable Assurance is the state's proclamation the project(s) will meet Alaska Water Quality Standards and the requirements of the CWA; and retains conditioning authority therein, under the Federal Power Act, to require implementation of erosion and sediment control BMPs to ensure the project(s) will not violate Alaska Water Quality Standards or the CWA.

All flood management projects within the Fairbanks Urbanized Area, regardless of whether or not they result in dredge or fill in wetlands and other waterbodies, additionally require a Title 15 Floodplain Permit from the FNSB. The Floodplain Permit is required for any new or substantially improved structure, alteration of a watercourse, or other development within the flood hazard area, Flood Zone A, inundated by the 100-year flood event. The goal of this permitting process is to ensure the cumulative effect of the proposed development would not create an obstruction in the floodplain, increase water surface elevation of the base flood more than one foot at any point within the Fairbanks area, or increase flood heights or velocities.

For smaller flood management projects within the Fairbanks area, such as bank stabilization projects, a multi-agency permitting process has also been established to streamline the permit application process. The permit application is collectively reviewed by the USACE, ADEC, Alaska Department of Fish & Game, Alaska Department of Natural Resources, U.S. Fish & Wildlife Service, U.S. Department of Agriculture Natural Resources Conservation Service, and FNSB; and subsequently approved by the Alaska Department of Fish & Game in accordance with prevention of stream bank erosion, protection of fish and wildlife habitats, and adherence to Alaska Water Quality Standards and the CWA.

- 6. List the industrial facilities owned or operated by the Co-permittees that discharge to the MS4, including facilities that are subject to EPA's Multi-Sector General Permit or individual NPDES permits for discharges of storm water associated with industrial activity. Include the EPA permit tracking number or a copy of the industrial Notice of Intent form for each facility, as appropriate.***

The Co-permittees do not own or operate any industrial facilities that discharge to the MS4.

**7. List the measurable goals for the pollution prevention and good housekeeping program, including dates by which the Co-permittees will achieve each of the measurable goals.**

The measureable goals for the pollution prevention and good housekeeping program over the next reporting year will largely be dependent on the conditions and compliance dates set by the ADEC for the next Permit term. As stated on the Co-permittees' Application for Permit Renewal, dated November 25, 2009, the Co-permittees proposed to implement the following measures for the next Permit term:

- a. Continue development and implementation of standard operating procedures for pollution prevention / good housekeeping activities at all permittee-owned facilities
- b. Continue documentation and evaluation of existing snow removal, street sanding, street sweeping, and storm drain cleaning operations
- c. Evaluate all permittee-owned snow disposal sites for siting, maintenance, and use of BMPs to eliminate discharge of pollutants to the MS4 and/or nearby surface waters
- d. Train all appropriate staff on standard operating procedures for pollution prevention / good housekeeping activities at all permittee-owned facilities

**8. Identify the persons responsible for coordination and implementation of the pollution prevention and good housekeeping program.**

The following people were responsible for coordination and implementation of the pollution prevention and good housekeeping program during the 2011/2012 reporting year:

COF: Jackson Fox, Environmental Manager  
Michael Schmetzer, Director of Public Works & City Engineer  
CONP: Bill Butler, Director of City Services  
UAF: Thaddeus Williamson, Environmental Health, Safety, and Risk  
Management Department Safety Officer  
DOT&PF: Brett Nelson, Maintenance Environmental Analyst

Compliance with Permit Requirements

To date, the Co-permittees have met all requirements detailed under Minimum Control Measure 6 and Section II.B.6 of the Permit. The following table provides a summary of the pollution prevention and good housekeeping requirements, their compliance date, and status as of May 2012.

Permit Section	SWMP Component	Compliance Date	Status (as of May 2012)
II.B.6.a	Develop and implement an operation and maintenance program to prevent pollutant runoff from municipal operations	June 1, 2007	Complete, ongoing

Permit Section	SWMP Component	Compliance Date	Status (as of May 2012)
II.B.6.b	Complete a study to evaluate the effectiveness of current street cleaning, waste disposal practices, and other municipal activities with potential for storm water impacts within the Co-permittees' jurisdictions	June 1, 2007	Complete
II.B.6.c	Develop and conduct appropriate training for municipal personnel related to optimum maintenance practices for the protection of water quality	June 1, 2007, and annually thereafter	Complete, ongoing
II.B.6.d	Ensure new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices	June 1, 2007	Complete

## **II.C Storm Water Management Plan Evaluation**

Presented below is an evaluation of the Co-permittees' progress towards fulfilling each Minimum Control Measure of the SWMP in accordance with the timelines set in the Permit.

### **Minimum Control Measure 1: Public Education and Outreach**

The Co-permittees have met all requirements detailed under Minimum Control Measure 1 of the Permit to date. In accordance with the SWMP, public education and outreach activities are focused in the month of April of each year when snowmelt runoff is prevalent, parking lots and streets are flooded, and storm water concerns are easily identifiable to residents of the community. The Co-permittees have successfully implemented the public education and outreach program in April of all seven reporting years, with a general increase in the number of presentations given to local schools and organizations, and number and type of educational materials distributed. The Co-permittees agree the BMPs identified under Minimum Control Measure 1 have proven to be appropriate and effective for the local community. Therefore, no changes to the SWMP are proposed at this time.

### **Minimum Control Measure 2: Public Involvement / Participation**

The Co-permittees have met all requirements detailed under Minimum Control Measure 2 of the Permit to date. The Co-permittees have successfully hosted an Annual Stream Cleanup Day, implemented a Storm Drain Stenciling Program, and convened a Storm Water Advisory Committee during all seven reporting years; and met all previous measureable goals for each program. The Volunteer Water Quality Monitoring and AAS Program has also been a great success. The program is now in full-swing with the TVWA conducting water quality sampling trainings to local volunteers, and coordinating cleanup activities with local organizations which have adopted stream sections. The Co-permittees also successfully prepared and distributed the Community Survey, which assessed public knowledge, behaviors, and attitudes related to storm water management in the Fairbanks area. Results from this survey have inevitably helped the Co-permittees identify pollutant sources in storm water, detect future illicit discharges, and curtail public education and outreach efforts. The Co-permittees agree the BMPs identified under Minimum Control Measure 2 have proven to be appropriate and effective for the local community. Therefore, no changes to the SWMP are proposed at this time.

### **Minimum Control Measure 3: Illicit Discharge Detection and Elimination**

The Co-permittees have met all requirements detailed under Minimum Control Measure 3 of the Permit to date, including completing dry-weather screening of more than 50-percent of their outfalls by the compliance date of June 2010. The number of illicit discharges reported and resolved by staff has also increased year to year, which is a clear sign the illicit discharge detection and elimination program has been successfully implemented. The Co-permittees agree

the BMPs identified under Minimum Control Measure 3 have proven to be appropriate and reasonable for their respective agencies. Therefore, no changes to the SWMP are proposed at this time.

**Minimum Control Measure 4: Construction Site Storm Water Runoff Control**

The Co-permittees have met all requirements detailed under Minimum Control Measure 4 of the Permit to date. Development and implementation of the construction site storm water plan review and inspection program was successful with the plan review and inspection of three construction sites during the 201/2012 reporting year. The Co-permittees expect a similar effort during the next reporting year, and agree the BMPs identified under Minimum Control Measure 4 are appropriate and reasonable for their respective agencies. Therefore, no changes to the SWMP are proposed at this time.

**Minimum Control Measure 5: Post-Construction Storm Water Management**

The Co-permittees have met all requirements detailed under Minimum Control Measure 5 of the Permit, including the successful adoption of COF and CONP Post-construction Storm Water Management Ordinances and creation of the Fairbanks & North Pole Storm Water Management Program Guide that covers both the construction site storm water runoff and post-construction storm water management requirements for the Fairbanks Urbanized Area. The Co-permittees agree the BMPs identified under Minimum Control Measure 5 are appropriate and reasonable for their respective agencies. Therefore, no changes to the SWMP are proposed at this time.

**Minimum Control Measure 6: Pollution Prevention and Good Housekeeping**

The Co-permittees have met all requirements detailed under Minimum Control Measure 6 of the Permit to date. Development and implementation of an operation and maintenance program to prevent pollutant runoff from municipal activities, and personnel training therein, have been implemented since June 2007 in compliance with the timelines set in the Permit. The COF also conducted a study of the effectiveness of their street sweeping operations, and all of the Co-permittees are now tracking their snow removal, street sanding, street sweeping, and storm drain cleaning operations. The Co-permittees agree the BMPs identified under Minimum Control Measure 6 have proven to be appropriate and reasonable for their respective agencies. Therefore, no changes to the SWMP are proposed at this time.

## Appendix A

### Public Education and Outreach

Fairbanks Urbanized Area Map .....	
Fairbanks Storm Water Management Webpage .....	
Storm Water Educational Presentation Materials:	
Summary of Presentation Participation .....	
Presentation Slides .....	
Watershed Model Information.....	
Photo of Pencil, Sticker, Tattoo, & Bracelet Giveaways .....	
Guest Presentation Slides.....	
Snow Removal Brochure & Mailing List .....	
Landscaping Brochure & Mailing List .....	

## Appendix B

### Public Involvement / Participation Activities

#### 2011 Annual Stream Cleanup Day Materials:

Event Flyer .....	
Newspaper Advertisement.....	
Participant Maps.....	
Participant Briefing Sheet.....	
Event Photographs.....	
Newspaper Article .....	
“Thank You” Newspaper Posting.....	
2011 TVWA Annual Report of Volunteer Water Quality Monitoring & AAS Program Activities....	
2006 – 2011 Storm Drain Stenciling Program Summary.....	
2011/2012 FSWAC Meeting Minutes.....	
2012 FSWAC Meeting Schedule .....	
Public Comments Log – 2011/2012 Entries .....	

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## Appendix C

### Illicit Discharge Detection and Elimination

September 2011 & April 2012 Outfall Discharge Monitoring Reports .....	
Summary of Outfall Sampling Results, 2006 – 2011 .....	
Illicit Discharge Log – 2011/2012 Entries .....	

**Appendix D**

**Construction Site Storm Water Runoff Control**

Fairbanks Storm Water Trainings Summary, June 2011 – May 2012 .....	
2012 Northern Living Home Show Advertisement .....	

**Appendix E**

**Post-Construction Storm Water Management**

“Green Infrastructure Opportunities” Maps – November 2011 .....

## Appendix F

### Pollution Prevention & Good Housekeeping

COF Snow Removal, Street Sanding, Street Sweeping, & Storm Drain Cleaning Logs – 2011/2012 ..  
CONP Snow Removal, Street Sanding, & Street Sweeping Summary – 2011/2012 .....  
UAF Snow Removal, Street Sanding, Street Sweeping, & Drainage System Maintenance  
    Work Orders – 2011/2012.....  
DOT&PF Snow Removal, Street Sweeping, & Drainage System Maintenance Logs – 2011/2012 .....