2007 ANNUAL REPORT

Municipal Separate Storm Sewer System (MS4)
NPDES Permit No. AKS-053406

Co-Permittees:

City of Fairbanks
City of North Pole,
University of Alaska – Fairbanks,
and
The Alaska Department of Transportation and Public Facilities – Northern Region Office

Prepared by:

City of Fairbanks
Engineering Division
800 Cushman Street
Fairbanks, Alaska 99701
(907) 459-6740

May 2007

Hill Road Retention Pond

CERTIFICATION

The technical material and data contained in this Annual Report was prepared under the supervision and direction of the undersigned whose seal as a professional engineer licensed to practice as such in the state of Alaska is affixed below.

"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."

Michael J Schmetzer 05/31/07

Michael J. Schmetzer, P.E. Date
City Engineer/Deputy Public Works Director
City of Fairbanks, Alaska

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
Steve Thompson	Mayor, City of Fairbanks ACTING MAYOR	FOR	5/30/07
Douglas Isaacson	Mayor, City of North Pole		5/30/07
Rosanne Bailey	Vice Chancellor for Administrative Services, University of Alaska Fairbanks		5/30/07
Howard Thies	Maintenance & Operations Director, Alaska Department of Transportation and Public Facilities – Northern Region Office		5/30/07

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ACRONYMS

ADOT&PF ..... Alaska Department of Transportation and Public Facilities – Northern Region
ADEC ..... Alaska Department of Environmental Conservation
BMP..... Best Management Practice
COF ..... City of Fairbanks
CWA..... Clean Water Act
EPA..... U.S. Environmental Protection Agency
FNSB ..... Fairbanks North Star Borough
FSWAC ..... Fairbanks Stormwater Advisory Committee
MS4 ..... Municipal Separate Storm Sewer System
NP ..... City of North Pole
NPDES ..... National Pollutant Discharge Elimination System
PSA..... Public Service Announcement
SWMP ..... Fairbanks Storm Water Management Program
TMDL..... Total Maximum Daily Load
UAF ..... University of Alaska – Fairbanks

I BACKGROUND INFORMATION

I.A. NPDES Permit

I.A.1. Permittee Information & Reporting Period

Permit Number: AKS-053406

Co-Permittees:

City of Fairbanks
Steve Thompson
Fairbanks, AK 99701
907-459-6793

City of North Pole
Douglas Isaacson
North Pole, AK 99705
907-488-2281

University of Alaska - Fairbanks
Rosanne "Ro" Bailey
Fairbanks, AK 99775
907-474-6088

Alaska Department of Transportation and Public Facilities
Howard Thies
Fairbanks, AK 99709
907-451-2294

Annexation:

Have any areas been added to the MS4 due to Annexation or other legal means?

YES ☐ NO ☑

Reporting Period:

June 1, 2006 to May 31, 2007

I.A.2. Permit Overview

The U.S. Environmental Protection Agency (EPA) has issued Permit No. AKS-053406 for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), under the authorization of the National Pollutant Discharge Elimination System (NPDES), to the following permittees:

City of Fairbanks (COF),

City of North Pole (NP),

University of Alaska – Fairbanks (UAF), and

Alaska Department of Transportation and Public Facilities – Northern Region (ADOT&PF)

These four entities, known collectively as the co-permittees, are authorized to discharge from all MS4 outfalls existing as of the effective date of the permit (June 1, 2005), to receiving waters that include Beaver Springs, the Chena River, Chena Slough, Noyes Slough, and other associated waters of the United States within the Fairbanks Urbanized Area.

I.B. Storm Water Management Program Overview

The MS4 permit requires that the co-permittees develop a Storm Water Management Program (SWMP), as described in permit section II.A.1:

> ***Co-permittees must develop, implement, and enforce a Storm Water Management Program designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. The SWMP must include BMPs, control techniques, system design, engineering methods, and other provisions the co-permittees or EPA determines appropriate for the control of pollutants in discharges from the MS4.***

The SWMP is the tool by which the co-permittees fulfill the requirements of the MS4 permit and provisions of the Clean Water Act (CWA). In the following discussion, a definition of the SWMP is provided, the purpose and goals of the SWMP are discussed, and the key performance characteristics that the SWMP must possess are presented.

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

In the original MS4 Permit Application, the co-permittees submitted the *Stormwater Management Plan – Fairbanks Urbanized Area*, dated May 2003. The final MS4 Permit incorporated this document by reference into the permit requirements. The EPA expanded on the co-permittees' submission and finalized the permit, which identifies six minimum control measures. These control measures include the following:

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; and

6. Pollution Prevention and Good Housekeeping for Municipal Operations.

The EPA also issued a fact sheet for the permit that explains and clarifies some of the permit language. In February 2006, the co-permittees submitted the *Monitoring Program Plan Including Quality Assurance Requirements*.

The following documents define the SWMP, as it currently exists:

- *Storm Water Management Plan – Fairbanks Urbanized Area*, dated May 2003;

- *Fact Sheet, Permit No: AKS-053406*, Environmental Protection Agency, dated October 18, 2004;

- *Permit No: AKS-053406*, Environmental Protection Agency, effective June 1, 2005; and

- *Monitoring Program Plan Including Quality Assurance Requirements*, dated February 2006.

Section IIA.4.b. of the permit states, "*Unless otherwise specified, program development and implementation schedules must provide for full implementation of a complete SWMP as soon as practicable, but no later than five years from the effective date of this permit.*" In keeping with the compliance schedule, resources available to the co-permittees, and the logistics of the new permit, the co-permittees have not yet formalized the SWMP. It is expected that the co-permittees will meet the MS4 permit section IIA.4.b. requirements with completion of the SWMP in accordance with the timelines in the permit.

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 permit requirements and the appropriate water quality requirements of the CWA. Through institution of Best Management Practices (BMPs), control techniques, system design, engineering methods, and other provisions, the co-permittees will ensure that the applicable Federal and State storm water quality requirements are attained. Appropriate goals identified for the SWMP include, but are not limited to:

- Compliance with Permit No: AKS-053406;

- Adherence with CWA Section 303(d) impaired waterbody list and Total Maximum Daily Load (TMDL) waterbody recovery plan provisions;

- Meeting Alaska State Water Quality Standards (18 AAC 70 - Water Quality Standards); and

- Conformance with the Alaska State Anti-degradation Policy (18 AAC 70.015).

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

To successfully meet the purpose and stated goals of the SWMP, along with CWA objectives, the SWMP must possess key performance characteristics. These key performance characteristics are a function of the co-permittee arrangement, climactic conditions, local soils conditions, Fairbanks' cultural heritage, and pending TMDL waterbody recovery plans. The performance characteristics include intergovernmental coordination, the identification of BMPs suitable for subarctic conditions, removal of silt from storm water, water quality related to industrial activities, and TMDLs for impaired waterbodies.

II ANNUAL REPORT

II.A. Annual Report Overview

At least once annually, the co-permittees are required to submit an Annual Report to the EPA and the ADEC. This 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 any BMPs or any identified measurable goals for any 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.

The requirements for evaluation of the SWMP in the first Annual Report submission are presented within the MS4 permit section I.D.4.b.:

> ***Not later than one year from the effective date of this permit, the co-permittees' Storm Water Management Program must include a section describing how the selected Best Management Practices (BMPs) identified by the co-permittees will control the discharge of pollutants of concern, and will ensure that the MS4 discharges will not cause an in-stream violation of the water quality standards. This discussion must specifically identify how the BMPs will collectively control the discharge of the pollutant(s) of concern. The co-permittees must submit this section of the Storm Water Management Program to EPA and ADEC as part of the first Annual Report required in Part IV.C.***

This document fulfills the submission requirements for Annual Reporting for the second year following the effective date of the permit, per the permit sections II.B.1. through II.B.6., IV.C., and Appendix A. The following seven report chapters provide required information on the co-

permittees' efforts with respect to the six minimum control measures mentioned above, and an evaluation of the SWMP as it pertains to the permit compliance activities completed to date.

II.B. Minimum control measures

II.B.1. Public education and outreach

The requirements of the first minimum control measure, Public Education and Outreach, are presented within the MS4 permit section II.B.1. The following discussion of the co-permittees' efforts to meet the requirements of this minimum control measure is based on the Annual Report requirements presented in Section II.B.1.d. of the permit, and applicable sections of Appendix A of the permit.

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

The co-permittees joined together with the Fairbanks North Star Borough (FNSB) to meet public education and outreach requirements. Together, the co-permittees and FNSB have instituted a public education program that educates the public about the impacts of storm water discharges on waterbodies. The public education and outreach program has provided steps that citizens can take to reduce pollutants in storm water runoff. While current efforts have targeted local youth and the general public, the program will also provide steps businesses can take to reduce pollutants in storm water runoff.

The Fairbanks Stormwater Advisory Committee (FSWAC) developed the public education program, with direct oversight provided by the Subcommittee on Public Education and Outreach. Subcommittee meeting minutes from the past year are included in Appendix A. The goal of the public education and outreach program is to create a viable and sustainable means of educating the greater Fairbanks community about storm water and pollution. To meet this goal, the FSWAC will accomplish the following objectives:

- Provide Fairbanks residents with visual and audio messages seasonally on how to eliminate water pollution,
- Solicit local participation in cleanup opportunities,
- Provide education, particularly through work in schools, about storm water and runoff pollution, and
- Encourage behavior changes through participation and observation.

The following sections summarize education and outreach programs accomplished during the previous year. Some of the FSWAC's accomplishments, such as the 2006 Chena Slough Cleanup,

can be categorized under both minimum control measures 1 (Public Education and Outreach) and 2 (Public Involvement / Participation). A discussion of the 2006 Chena Slough Cleanup is provided in the minimum control measure 2 discussion in Section II.B.2.

Fairbanks Storm Water Management Program Web Page

The FNSB web page, available on-line at: http://www.co.fairbanks.ak.us, contains a direct link to the public education and outreach web page available on-line at:

http://www.co.fairbanks.ak.us/PWorks/StormWaterManagementProgram/ (Appendix A).

The COF also has a link (storm water management) on its home page (http://www.ci.fairbanks.ak.us) to the SWMP public education and outreach web page. The web page is updated regularly to reflect upcoming events. The webpage provides a general description of the SWMP and links to the permits, helpful storm water sites, and a Fairbanks Urbanized Area map, as well as contact information for the FNSB, COF, NP, and ADOT&PF.

Public Service Announcements

In late April/early May of 2007, a new, 30-second Public Service Announcement (PSA) was distributed for broadcasting by local radio stations. This PSA was a reminder about the potential for a storm water system to carry pollutants. In this manner, the FSWAC distributed information to a general audience throughout the greater Fairbanks and North Pole areas. Appendix A contains a copy of the Spring 2007 PSA.

Stormwater is Cool Educational Presentation

This past Spring, the Fairbanks SWAC delivered a presentation based on the one developed last year to various FNSB elementary and middle schools during the observation of National Earth Week. The presentation, titled *Stormwater is Cool 2007* (Appendix A) is designed for a 20- to 30-minute time block, including questions and answers. In total, there were 14 presentations delivered to elementary and middle school age children at 9 different schools. It is estimated that approximately 400 students attended the presentations. Seven members of the FSWAC and one representative from the FNSB delivered the presentations.

In general, the presentations were judged very successful in delivering the message of how storm water can carry pollutants into surface waters, and how those pollutants adversely affect the flora and fauna in our local water bodies. The enthusiastic reaction of the children and the generation of insightful questions evidenced the success of this educational effort during the presentations.

FSWAC Logo

The FSWAC decided to hire a graphic artist to develop a logo. Various logo concepts were presented to members of the Public Education and Outreach Subcommittee. Comments received from Subcommittee members were used to refine the logo concepts, resulting in final designs to be used in logos and letterhead as shown in Appendix A. Guidelines for the appropriate use of these logos were also developed.

Fairbanks Outdoors Days

On May 8 - 10, 2007, one FSWAC member presented educational materials to local sixth graders as a part of Fairbanks Outdoors Days. Fairbanks Outdoors Days is an annual, 3-day event attended by sixth graders throughout the greater Fairbanks area and is held at the UAF trail system. Representatives from local, state, and federal agencies are invited each year to present materials to students at the event. The FSWAC members presented a 30-minute presentation to student groups, totaling approximately 500 students over the three days.

The presentations taught students about sediment loading, wetlands, BMPs, and erosion. Students also learned that May is wetlands month. The presentations used Project Wet curriculum and taught students and teachers about World Water Monitoring Days, which is a program from September 18 to October 18, 2006 for "spot check" water quality monitoring of temperature, pH, turbidity, and dissolved oxygen. Additional information about Project Wet and World Water Monitoring Days can be found on-line at: http://www.projectwet.org/ and http://www.worldwatermonitoringday.org/.

2. Methods and frequency of distributing information

The FSWAC distributed public education and outreach program information to the public using multiple formats, including: a PSA read by local radio stations, scheduled to air several days before and after Fairbanks Cleanup Day; information posted to the SWMP web page; and presentations to local schools.

The SWMP web page is available continuously. The *Stormwater is Cool* presentation to schoolchildren has become an annual event during the Earth Week observation at FNSB schools. The presentation can easily be re-packaged for delivery to other audiences as well as other events in the Fairbanks Urbanized Area where appropriate.

3. 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:

- Home and property owners,
- Students,
- Other federal, state, and local agencies, and
- Business owners, specifically:
- Car lot owners,
- Parking lot owners,
- Auto repair facilities, and

- Car wash facilities.

Outreach efforts have been tailored to reach target audiences according to type of message and method of distribution. The FSWAC selected April as a focus month for storm water messages to the public because impacts from melting snow and rain are visible during spring breakup. Similarly, the school presentation *Stormwater is Cool* was presented to elementary school students, and the Fairbanks Outdoors Days presentation was given to a target audience of sixth grade students.

The FSWAC selected pollutants of concern based on permit requirements designed to enhance the quality of local waters on the ADEC's impaired waterbodies list, namely the Chena River, Chena Slough, and Noyes Slough. The pollutants of concern include petroleum products and sediments for the Chena River and Chena Slough; and sediment, petroleum products, and debris for Noyes Slough.

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

The public education and outreach program has reached approximately 5900 people during the previous 12-month period. This number includes 400 students that attended the *Stormwater is Cool* presentation, 500 students that attended the Fairbanks Outdoors Days presentations, and roughly 5,000 residents that may have heard the PSAs.

Additionally, public education and outreach efforts related to the 2006 Chena Slough Cleanup (see discussion in Section II.B.2.) may have had a potential audience of 5,000 people that may have heard PSAs broadcast regarding the cleanup, and more than 300 mail-outs on the cleanup efforts that were sent to residents living along the slough.

5. 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 following sections summarize the measurable goals of the public education and outreach program to be accomplished over the next calendar year, and outline dates when these goals will be achieved.

Golden Days

The Public Education and Outreach Subcommittee plans to participate in the Golden Days celebration in July 2007 by promoting storm water education and sustainable practices. Golden Days consists of a collection of local festivities honoring the history of gold discovery in Fairbanks. Subcommittee efforts for education and outreach tentatively include the distribution of handouts and other educational materials. The measurable goal of subcommittee participation in Golden Days events will be the occurrence of direct communication between the subcommittee members and the public regarding storm water pollution prevention. Implementation of this goal will occur during the Golden Days events scheduled from July18-22, 2007.

Tanana Valley State Fair

The Public Education and Outreach Subcommittee will distribute materials from the ADOT&PF and ADEC booths at the Tanana Valley State Fair in August 2007 in order to promote public engagement in storm water management and pollution prevention. Members of the subcommittee will assist in manning the booths at the fair in order to present informational handouts and perform direct outreach to the public. The measurable goal of subcommittee presence at the fair will be the distribution of educational resources from subcommittee members to the public. Implementation of this goal will occur during the Tanana Valley State Fair held from August 3-11, 2007.

Seasonal PSAs

In January 2007, the Public Education and Outreach Subcommittee will continue to create and develop seasonal PSAs for distribution in fall 2006 and winter 2006-2007. The announcements will address storm water concerns and BMPs pertinent to each season. The subcommittee plans to dispense the PSAs in a similar manner as the April 2006 PSAs, distributing new announcements to local media such as newspapers and radio stations. The measurable goal of the distribution of PSAs will be the broadcasting of storm water PSAs to the public in various media formats. Implementation of the future PSAs will begin with their development in August and October 2006, and will conclude with their circulation in fall 2006 and winter 2006-2007, respectively.

Car Wash Water Retention

In an effort to promote proper water capture and retention at car washes, the subcommittee has contacted the FNSB and local churches with large grassy locations that may be willing to host local car wash fundraisers. Future efforts will include confirming and then promoting the use of these locations, along with the potential distribution of coupons to encourage the use of sustainable car wash sites. The measurable goal of the car wash activities will be to facilitate local groups in hosting car washes at sites selected by the Sub-committee. Implementation of the car wash activities is proposed to begin in 2006.

6. Persons responsible for implementing and coordinating the education activities

While all members of the FSWAC and its Subcommittee on Public Education and Outreach have shared responsibility for implementing and coordinating education activities, Clark Milne, Maintenance Engineer for ADOT&PF, Northern Region, is the primary education activity coordinator. Support has been provided to Clark Milne by the following:

COF:	Helena Byard, Engineer I
NP:	James Remitz , Public Works Director
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
ADOT&PF:	Darren Mulkey, Environmental Program Specialist, and La'ona DeWilde, Environmental Intern

Summary of Activities

During the second year of this permit's effective date, the co-permittees maintained a public education program that educates the community about the impacts of storm water discharges on water bodies, and the efforts that citizens and businesses can take to reduce pollutants in storm water runoff. The co-permittees have distributed storm water educational materials to target audiences regarding the SWMP, and they have prepared and distributed appropriate information relevant to the program to local media outlets.

Future Planned Activities

Public education and outreach efforts proposed to begin in summer and fall 2006 also include coordinating cleanup messages with dog parks regarding waste disposal, posting signs on borough buses and water quality messages on message signs owned by businesses such as banks. Additionally, the Public Education and Outreach Subcommittee will pursue educational opportunities through the Alaska Public Lands Information Center in Fairbanks, and promotional opportunities through newspaper articles. These future measures are anticipated to engage the full spectrum of the targeted audience, including businesses, residents, and local agencies.

Compliance With Permit Requirements

The co-permittees are currently within the requirements of section II.B.1. as the result of the presented public education and outreach activities completed by the FSWAC over the past year.

II.B.2. Public Involvement / Participation

The requirements of the second minimum control measure, Public Involvement / Participation, are presented within the MS4 permit Section II.B.2. The following discussion of the co-permittees' efforts to meet the requirements of this minimum control measure is based on the Annual Report requirements presented in Section II.B.2.h. of the permit, and applicable sections of Appendix A of the permit.

1. ***In the first Annual Report only, describe the State or local requirements for public involvement, including how the public was involved in the development of the Storm Water Management Plan submitted with the permit application***

This description, provided in the first Annual Report, is not required in subsequent years. Please note, however, that Fairbanks Storm Water Advisory Committee (FSWAC) meets on a monthly basis, with notices of events and committee meetings posted on bulletin boards in city offices and on the SWMP web page. FSWAC meetings are open to the public; meeting minutes from the 2006-2007 reporting year are included in Appendix B.

2. ***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.***

Target audiences for the public involvement / participation efforts are the same as those for the education and outreach program outlined in the previous section. The following subsections summarize public involvement / participation efforts accomplished this year.

Chena Slough Cleanup

The FSWAC arranged and hosted another stream cleanup day for the Fairbanks area's annual stormwater awareness and intervention event, during much of the day on Saturday, August 26, 2006, along the Chena Slough in North Pole.

Twenty-one intrepid (and then proven to be competent) volunteers showed up to participate, and braved the drizzly weather in canoes and on foot to help with the cleanup effort, pulling junk, debris, bags, drums, and various other items from the slough body and the adjacent inundate-able shorelines. Our cleanup began with an excellent and thorough safety meeting, describing the care and caution that we expected our volunteers to exhibit, and then several vehicles and canoe haul trucks delivered the canoeists to 6 of the reaches along the Chena Slough that we had targeted for cleanup.

In all, almost 2/3 ton (approx. 1,350 pounds) of debris of a variety of types were hauled away from the slough (see detailed e-mail by Mike Schmetzer of August 30, 2006), and over 8 miles of slough were traversed, inspected, and cleaned of unnecessary litter/trash. (note that two of the reaches, #4 and #8 were not staffed and thus not cleaned during this event)

The slough cleanup presented an outstanding educational opportunity to reach residents who live or work along the Chena Slough, as well as a number of interested, environmentally involved citizens who responded to our broadcast "alerts", notifying people of the cleanup day timing and scope. Our information pamphlets detailed the cleanup activities to be attempted, and notified the streamside residents that we would be passing along their property on this Saturday. We reminded them that it was bad for the slough's health to dump yard clippings or any other wastes in the slough.

Supplemental information and pictures of the Chena Slough cleanup are included in Appendix B.

Storm Drain Stenciling

The FSWAC has continued its storm drain stenciling program in the 2006-2007 reporting year. The purpose of the stencils is to identify drop inlets for the public, to educate the public where the stormwater ends up, and to discourage illicit discharges. A FSWAC member received feedback from teachers who, during a field trip, used the stencils as an opportunity to teach school children about the impact of storm water on water pollution. A picture of a stenciled catch basin is included in Appendix B. A table showing the roads and locations of storm drains that were stenciled and what will be done this season is also shown in Appendix B.

3. Procedures for receiving and reviewing public comments

The FSWAC, to date, has no formalized procedures that have been instituted for the receipt and consideration of information submitted by the public. Currently, the COF and the NP both accept public comments and information via telephone. Any feedback or concerns from the public are simply routed to personnel who can address them. Efforts are then made to substantiate the comments or concerns; if these fall under the purview of any of the co-permittees, remedies are then sought to address the concerns.

4. 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 following sections summarize and outline dates of the measurable goals for public involvement / participation to be accomplished over the next calendar year:

Chena River Cleanup

The FSWAC will focus this year's cleanup efforts on selected portions of the Chena River within the Fairbanks city limits. This event has been scheduled for August 25, 2007. The committee will solicit public participation for this event. Property owners, residents, and business employees who live and work by the Chena River will be informed of the cleanup activities, and will also be asked to participate.

This year's cleanup event is anticipated to be larger in terms of participation and range of activities than similar events held in previous years. This event will have greater visibility to the public simply by virtue of the Chena River's location in the middle of town.

In addition to public involvement and participation, potential methods of public education and outreach include the distribution of information pamphlets to nearby residents, detailing the stream cleanup activities, and promoting sustainable outdoor maintenance practices. The measurable goal of the cleanup day will be to host the event. The number of participants and amount of trash collected will be recorded. Implementation of the cleanup day will occur on August 25, 2007.

Attitude Survey

The FSWAC has developed, and will distribute, and collect a public attitude survey in order to evaluate the public's knowledge and outlook regarding storm water management in the greater Fairbanks Urbanized Area. While not required by the permit until 2009, the survey has already been developed in the spring of 2007. This survey will be distributed by mass mailing, website and at community events in the spring and summers of 2007 and 2008. The results shall be submitted to the EPA no later than six months prior to the expiration date of this permit, as required. The measurable goal of the attitude survey will be the development, distribution, and analysis of the survey. A copy of the Attitude Survey is included in Appendix B.

Adopt-A-Stream

The FSWAC in a joint effort with Tanana Valley Watershed Association has developed an Adopt-a-Stream (AAS) program for implementation in June 1st of 2007. The AAS program is meant to be community based; and has started out on the right foot, in that during the development of this program there were multiple agencies and community members involved in the process; which involved a series of 11 meetings over five months from February to June of 2007. The program incorporates service groups and individuals in the water quality improvement process, which will increase public awareness of water quality issues while cleaning up the waterways, preserving the bank and collecting water quality information. The measurable goal of the Adopt-a-Stream program will be to increase the length of adopted streams in the Fairbanks area and the number of water quality sampling sites adopted. The AAS program is on the TVWA website at http://www.tvwatershed.com/programs.htm. A copy of the Adopt-a-Stream brochure, designed for the public, is shown in Appendix B.

5. Persons responsible for implementing and coordinating the public involvement / participation activities

While all members of the FSWAC have shared responsibility for implementing and coordinating public involvement / participation activities, Clark Milne, Maintenance Engineer for ADOT&PF, is the primary public involvements/participation coordinator. Support has been provided to Clark Milne by the following:

COF:	Helena Byard, Engineer I
NP:	James Remitz , Public Works Director
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
ADOT&PF:	Darren Mulkey, Environmental Program Specialist, and La'ona DeWilde, Environmental Intern

Summary of Activities

To date, the co-permittees have hosted two stream cleanup days, and will have a third stream cleanup day in August 2007. The storm drain stenciling program continued in 2007. Over the next year, further development of the adopt-a-stream program and public attitude surveys will continue. The co-permittees will also implement a volunteer monitoring program for additional public involvement / participation. Regular FSWAC meetings will continue to occur, with meeting dates and times posted on the public education and outreach web page. Annual Reports compiled for this MS4 permit will be available to the public and located in the document repository at the COF Engineering Department, along with the Storm Water Management Plan, Quality Assurance Project Plan, and Monitoring Program Plan.

Compliance With Permit Requirements

The co-permittees are currently within the requirements of section II.B.2. as the result of the presented public involvement / participation activities completed by the FSWAC over the past year.

II.B.3 Illicit Discharge Detection and Elimination

The requirements of the third minimum control measure, Illicit Discharge Detection and Elimination, are presented within the MS4 permit Section II.B.3. The following discussion of the co-permittees' efforts to meet the requirements of this minimum control measure is based on the Annual Report requirements presented in Section II.B.3.h. of the permit, and applicable sections of Appendix A of the permit.

1. Criteria used to prioritize investigations in areas suspected of having illicit discharges

Criteria to prioritize illicit discharge investigations are: commercial and industrial areas; older areas of the city; areas of high public complaints; areas of high recreational value; areas of high environmental value, e.g. drinking water sources; areas where water samples show high levels of analytes; areas where hydrocarbon sheen is detected; and areas with a record of enforcement actions.

2. Procedures used to locate and remove illicit discharges, including detection methods

Dry-weather surveys of outfalls in high-priority areas (industrial areas and older, residential neighborhoods) will be the primary method of detecting illicit discharges. The MS4 map will identify the locations of outfalls to be surveyed. The co-permittees will survey the outfalls within their respective jurisdictions on a monthly basis during the Summer, and during those periods of Spring and Fall when the ground is not frozen. Public Works crews will also be trained 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 flow. Once detected, an illicit discharge will be tracked back to its source primarily 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. Physical and chemical characteristics of the discharge will help identify its source.

Within the COF, NP, and at UAF, our public works crews are our "eyes and ears". Outside of the City and University boundaries and within the remaining portion of the urbanized area the ADOT&PF Maintenance & Operations crews, along with assistance from the FNSB Public Works Crews (under separate permit) are our "eyes and ears", as follows:

<u>City of Fairbanks</u>

The COF public works crews range in size from approximately 32 personnel during winter months to as many as 50 during summer months, and responsibilities include refuse collection, constructing roadway improvements, cleaning and maintenance of the streets and storm drain system, constructing improvements to storm drain system (expansions of the system including new catch basins, manholes, and laterals), and maintenance of 14 City-owned and managed facilities comprising over 256,000 square feet. The COF has approximately 350 lane miles of road. The COF's MS4 is composed of 477,400 linear feet of pipe, 2,193 catch basins, 407

manholes, 57 outfalls to the Chena River and 36 outfalls to the Noyes Slough; the COF also maintains 7 stormceptors.

The City Engineer is providing trainings to Public Works Lead and Field personnel to apprise them of the Phase II Permit requirements related to illicit discharge, and is requesting that everybody in the field maintain, to the best of their ability, a continued surveillance on City Streets, right-of-way, storm drain system, area businesses discharging curb-side, illegal sub-grade connections observed during any construction activities, etc. In addition, two personnel dedicated to cleaning and maintenance of the storm drain system, as well as various crews constructing annual improvements, are instructed to look for any flows or discharges that are not consistent with the seasonal elements, and contact the City Engineer immediately if dry weather flow is observed, or odors or visual inspection indicates non-storm water related flows in the system. The COF has instituted a permit system to control the discharge of building cooling water into its storm water system. During dry flow periods, it will be 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. The City has issued permits and collects annual discharge fees from these four facilities.

City of North Pole

The NP Public Works Department consists of two personnel who perform all summer street maintenance with the assistance of local contractors. Summer roadway 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 drainage ditches. The NP Public Works Director has conducted trainings to apprise personnel of the Phase II NPDES requirements, illicit discharge awareness, construction site awareness, etc.

Alaska Department of Transportation and Public Facilities

The ADOT&PF Fairbanks Station covers the entire urbanized area and has an estimated 46 personnel operating in this area, 35 of which are fully dedicated to “field” positions. Similarly to the COF and NP, ADOT&PF personnel are performing a variety of maintenance on the roadway and drainage systems and are instructed to apprise their supervisors if any illicit discharges are observed within the roadway and storm drain system.

University of Alaska Fairbanks

The UAF Roads and Grounds Shop consists of approximately 16 full time personnel and up to 18 part-time student employees depending on the time of year and the workload. The roads crew's primary duty is to maintain and clean the University streets and parking lots by performing asphalt repair and pothole patching, routine sweeping and cleaning, and sanding and snow removal during winter months. There are approximately eight miles of roadway and 52 parking lots covering over 1,000,000 square feet. The shop's heavy equipment and operators assist other divisions within Facilities Services as well as the university community. Some of the excavation tasks include trench digging, laying new power lines, repairing hydrants, locating broken water lines, sloping grounds for proper drainage, and moving materials into the ecosystem dump site. Other tasks include moving large equipment. Routine assistance is provided to the grounds crew for

landscaping projects include assistance with creating flowerbeds, clearing trees, establishing pathways, repairing lawn mowers, weed whips, snow blowers and handcarts. The grounds crew plans and improves the aesthetics of the campus while working in conjunction with other organizations/committees' including the Ruth Hewitt Landscape Committee, Trails Committee, Master Planning Committee, and "Artscape" themed grounds projects, which tie in with the local community projects. In the summer, the grounds crew maintains the University's 2,200 acres of landscape by mowing, irrigating, fertilizing, top dressing, aerating, edging and pruning. In the greenhouse, over 50,000 annual flowers and plants are raised, cultivated, and maintained by the horticulturist. The flowers are planted in 109 flowerbeds and numerous flower boxes and hanging baskets throughout campus. Tree and brush trimming and clearing is performed throughout the summer with the debris transported to the Ecology Dump site for composting and chipping, which is also maintained by the grounds crew. In the winter, the first priority of the grounds crew is to ensure the safety of the campus community by performing snow/ice removal and maintaining traction control on walking and driving surfaces. Handicap accessibility is critical so walkways, handicap ramps and parking spaces are the first to be addressed. There are over 168 exterior stairways with over 1,700 steps to clear and approximately eight miles of walkways on campus.

As an aid in illicit discharge detection efforts, production has begun on a Comprehensive MS4 Storm Drain Map (II.B.3.f. of the MS4 permit). The ADOT&PF has contracted with USKH, Inc. (USKH) and PDC, Inc. to perform their portion of the system delineation work. The COF has prepared their preliminary storm drain map, and system data has been provided by UAF and NP. Additional MS4 mapping field activities are slated to occur by September 2007, and the efforts for completing the required comprehensive storm sewer system map of the MS4 are ahead of the scheduled compliance date of June 2008. In conjunction with the storm drain mapping efforts, a hydrologic study (II.B.3.a. of the MS4 permit) is being performed with the intent of determining the path and ultimate outfall of storm water in the various branches of the MS4. Additional hydrologic study activities are slated for this year, and the study will be completed by the scheduled compliance date of June 2008.

3. Summary of all dry weather testing conducted to date, and of co-permittee activity to remove any identified illicit discharges

The FSWAC will begin conducting dry weather screening on Chena River from Fort Wainwright down and Noyes Slough during June of 2007. If a discharge is spotted; the location will be documented by recording latitude and longitude, and taking a picture. A short description of the discharge will be written for future investigation of the site.

4. 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

A copy of the draft Illicit Discharge Ordinance is included in Appendix C. Presently, the COF, NP and FNSB plan to adopt identical ordinances as local contractors, business owners, suppliers, etc., would benefit because identical ordinances would allow the same set of rules to be followed regardless of location in the urbanized area. This would reduce potential confusion caused by the existence of different ordinances that have the same basic purpose, but may have different fee structures, inspection procedures, fining mechanisms, etc.

5. Enforcement policy and jurisdiction

Under our current permit the COF and NP are the only entities that have the authority to adopt and enforce Ordinances and levy fines. The FNSB, under a separate permit, has authority to adopt and enforce Ordinances and levy fines. Thus, the COF, NP and FNSB Public Works Departments are in the process of coordinating and adopting nearly identical ordinances, fee structures, and enforcement procedures/fines for coverage of the entire urbanized area. The FNSB will have jurisdiction of the UAF properties and all remaining areas outside of the boundaries of the COF and NP that are managed by ADOT&PF. The COF and NP will enforce the program within their respective boundaries.

To date the COF, NP and FNSB Public Works Directors have collaborated to provide Work Sessions for the NP Assembly and the COF City Council on the Phase II MS4 NPDES Permit. A Work Session for the FNSB Assembly is planned for late June 2007. The intent is for each of the governments to adopt nearly identical ordinances with inspection and fee/fining structures and in a combined effort provide for regulatory enforcement of illicit discharges, construction, and post construction activities over the entire urbanized area. These ordinances will be finalized and adopted within three years of the effective date of this permit.

In the coming years, co-permittee jurisdiction and coordination procedures will be finalized and will include procedures for notifying EPA and ADEC when enforcement assistance is necessary. A description of programs and procedures relating to these requirements of the MS4 permit will be included in the Annual Report for the permit year 2008.

6. 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 described in Item 2 above, the COF, NP, and UAF public works crews are our “eyes and ears” in the field. Outside of the City and University boundaries and within the remaining portion of the urbanized area the ADOT&PF Maintenance & Operations crews, along with the FNSB Public Works Crews (under separate permit) are our “eyes and ears” in the field. Directors for each of the co-permittees have conducted trainings to apprise their field personnel of the content/intent of the Phase II MS4 NPDES Permit, and to be aware of any suspected illicit discharges and report any suspected illicit discharges to their respective supervisors immediately.

Efforts have been made in the past 12 months to inform the public about illicit discharges. These efforts are discussed in Sections II.B.1. and II.B.2. of this Annual Report. These efforts included PSAs, community cleanup, and storm drain stenciling. The FSWAC will continue public education efforts and has initiated employee educational efforts specific to illicit discharges. As noted in item 2 of this section, Public Works employees have been instructed to observe outfalls during periods of dry weather when performing street maintenance activities in those areas where outfalls are located. If any discharges are observed, the crews have been instructed to contact the

City's Engineering Department so that the source of these discharges can be located, identified, and subsequently removed.

7. 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 co-permittees will continue to perform storm water sampling at outfall locations identified in the Quality Assurance Project Plan in order to determine whether or not the presence of illicit discharges can be inferred based on results of laboratory analysis. Water samples were taken at these outfalls in August 2006 after a significant rainfall event, and again in April 2007, during spring breakup. The FSWAC anticipates performing another round of sampling in late summer of 2007.

In the summer of 2007, the COF and NP will begin conducting and documenting dry weather screening on outfalls in the MS4 in their core downtown areas. Data obtained from these initial efforts will be used to design and build an information management system. An integral part of this system will be a relational database that can be used to track the maintenance of, and upgrades to the MS4. This database will also function as a repository of information regarding any illicit discharges that are detected in the components of the MS4, and will be used to document subsequent remedial actions. The cooling water permit system will continue to be administered by the COF; permitted facilities will be included in the Illicit Discharge Detection and Elimination information management system.

Additional data for the hydrologic study and MS4 Storm Drain Map will be collected over the summer months. Both projects are slated for completion over the 2007-2008 winter season, and will be submitted with the 2008 Annual Report.

The co-permittees will continue to pursue local government adoption of the ordinances prohibiting illicit discharges and governing construction and post construction activities, and progress will be documented in future Annual Reports. During the 2007-2008 reporting year, the co-permittees will clearly define their respective jurisdictions within the Fairbanks Urbanized Area, and firmly establish investigation, elimination, enforcement, and enforcement procedures.

8. Persons responsible for coordination and implementation of the illicit discharge detection and elimination program

The following people are responsible for coordination and implementation of the illicit discharge detection and elimination program for their respective co-permittee organizations:

COF:	Michael Schmetzer, City Engineer/Deputy Public Works Director
NP:	James Remitz, Public Works Director
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
ADOT&PF:	Darren Mulkey, Environmental Program Specialist

Summary of Future Activities and Compliance with Permit Requirements

The co-permittees intend to fully meet the requirements of the MS4 permit (AKS-053406), Section II.B.3 by June 1, 2008. Please refer to the previous section on Measurable Goals for an itemization of future activities for the Illicit Discharge Detection and Elimination requirements of the permit.

Results of Information Collected and Analyzed during previous 12 months

In accordance with permit section IV.A.2.c., Discharge Monitoring Reports (DMRs) have been completed for the outfall water samples collected and analyzed in August 2006 and April 2007. These reports are located in Appendix C.

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

The requirements of the fourth minimum control measure, Construction Site Storm Water Runoff Control, are presented within the MS4 permit Section II.B.4. The following discussion of the co-permittees' efforts to meet the requirements of this minimum control measure is based on the Annual Report requirements presented in Section II.B.4.g. of the permit, and applicable sections of Appendix A of the permit.

1. ***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.***

A copy of the Draft Construction Site Storm Water Runoff Ordinance is provided in Appendix D. Presently, the COF, NP and FNSB plan to adopt identical ordinances as local contractors and facility owners would benefit because identical ordinances would allow the same set of rules to be followed on any job regardless of whether the COF, NP, ADOT&PF, UAF, or FNSB was the owner of the project. This would reduce potential confusion caused by the existence of different ordinances that have the same basic purpose, but may have different fee structures, specifications, inspection procedures, fines, etc.

2. ***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 have yet been taken by the Co-Permittees in regards to Construction Site Storm Water Runoff Control. Under our current permit the COF and NP are the only Co-Permittees that have the authority to adopt and enforce Ordinances and levy fines. The FNSB, under a separate permit, has authority to adopt and enforce Ordinances and levy fines. The ADOT&PF and UAF do not have such authority. Thus, the COF, NP and FNSB Public Works Departments are in the process of coordinating and adopting nearly identical ordinances, fee structures, and enforcement procedures/fines for coverage of the entire urbanized area. The FNSB will have jurisdiction of the UAF properties and all remaining areas outside of the boundaries of the COF and NP that are managed by ADOT&PF. The COF and NP will enforce the program within their respective boundaries. The ADOT&PF and UAF will have explicit erosion and sediment control requirements in any contracts they administer as will the COF, NP and FNSB; however, only the COF, NP and FNSB can enforce citations for criminal negligence for failure to comply with local ordinances pertaining to construction sites storm water runoff control.

To date the COF, NP and FNSB Public Works Directors have collaborated to provide Work Sessions for the NP Assembly and the COF City Council on the Phase II MS4 NPDES Permit. A Work Session for the FNSB Assembly is planned for late June 2007. The intent is for each of the governments to adopt nearly identical ordinances with inspection and fee/fining structures and in a combined effort provide for regulatory enforcement of illicit discharges, construction, and post construction activities over the entire urbanized area. It is the intent of the COF, NP and FNSB

Public Works Directors to have the local governments fully adopt the construction site ordinances prior to September 2007.

In the coming years, co-permittee jurisdiction and coordination procedures will be finalized and will include procedures for notifying EPA and ADEC when enforcement assistance is necessary. A description of programs and procedures relating to these requirements of the MS4 permit will be included in the Annual Report for the permit year 2008.

3. Copy of the written requirements for appropriate erosion, sediment, and waste control BMPs at construction sites

The Construction Site Ordinance adopts by reference the current version of the *Alaska Storm Water Pollution Prevention Guide*, which identifies erosion, sediment, and waste control BMPs for construction sites, and is available on the ADOT&PF website on its Statewide Design & Engineering Services page (http://www.dot.state.ak.us/stwddes/dcsenviron/assets/pdf/swppp/english/eng_f.pdf). This ordinance also adopts by reference the EPA requirements for Storm Water Pollution Prevention Plans. Written requirements are attached to the draft Ordinance included in Appendix D. These BMPs indicate appropriate uses, and required dimensions and materials for various types of erosion and sediment controls. Also, the ADOT&PF hosted a Technology Transfer class titled "Certified Erosion & Sediment Control Lead Training." Eighty-six people attended this training class, held in Fairbanks at the Westmark Hotel on February 21 and 22, 2007. The co-permittees' inspectors and a number of local consultants, including Great North West, Shannon & Wilson, USKH, and Weed Engineering, attended this class. The class consisted of two days of instruction, taught by Alex Zimmerman, CPESC, where videos produced by the Erosion Control Technology Council and Dirt Time TV were presented and discussed. Copies of the ADOT&PF's Alaska SWPPP Guide were also distributed. A list of class attendees is included in Appendix D.

4. Summary of the number of site plan reviews conducted by each permittee

A summary of site plan reviews conducted by each permittee during the previous twelve months is not yet available, because the ordinance requiring such reviews is only in the process of being adopted by the local governments. Intent of the Co-permittees is to have the COF, NP and FNSB adopt the Ordinance by September 2007, followed by presentations and advertisements to educate the regulated community on the new Ordinances and changes to regulation of Construction Site Storm Water Runoff Control. The COF, NP and FNSB plan on having new personnel in place to perform plan reviews, site inspections, and enforcement activities in March 2008, thus ahead of the 2008 summer construction season.

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

To date, no formalized procedures have been instituted for the receipt and consideration of information submitted by the public. The respective Public Works Directors will review any public information submitted to the Co-Permittees in regards to implementation of the Construction Site Storm Water Runoff Control Ordinances.

6. 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

At this time, the co-permittees are not inspecting construction sites under the draft Ordinance for Construction Site Storm Water Runoff Control. Assuming the Construction Site Storm Water Runoff Control Ordinances are fully implemented in September 2008, the COF, NP and FNSB will commence with enforcement in approximately March/April 2008 to remain ahead of the 2008 summer construction season. Future efforts will focus on developing inspection procedures and prioritization methods. The development of such inspection procedures will likely follow guidance provided in the inspection requirements starting on page 126 of the Field Manual on Sediment and Erosion Control, Best Management Practices for Contractors and Inspectors by Jerald Fifield. Once these efforts have been completed, a summary of the number of site plan inspections will be made and included in Annual Reports from that point on.

7. Measurable goals for the construction site runoff control program

In late 2007 through spring of 2008 the public will be notified of the Construction Site Storm Water Runoff Control Ordinances through published ads in the local newspaper, presentations made to professional groups and the Associated General Contractors of Alaska. The COF and NP Building Department permit processes will be revised such that contractors and developers are apprised of the new Ordinances and requirements. In addition, contracts documents advertised by the co-permittees will clearly identify the new Ordinances and requirements new construction projects.

In the fall and winter of 2007, the co-permittees will begin developing procedures for site inspection and enforcement of control measures, including enforcement escalation procedures for recalcitrant or repeat offenders. These procedures will be implemented by the start of the 2008 construction season.

8. Persons responsible for coordination and implementation of the construction site runoff control program

The following people are responsible for coordination and implementation of the construction site runoff control program for their respective co-permittee organizations:

COF:	Michael Schmetzer, City Engineer/Deputy Public Works Director
NP:	James Remitz, Public Works Director
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
ADOT&PF:	Darren Mulkey, Environmental Program Specialist

Summary of Activities

The co-permittees will initiate the construction site runoff control program by reviewing site plans. During the fall and winter of 2007, procedures will be developed for conducting site

inspections and ordinance enforcement actions. The co-permittees intend to fully meet the requirements of Section II.B.4 by June 1, 2008.

Compliance With Permit Requirements

The co-permittees are currently within the requirements of Section II.B.4 of the MS4 permit since the permitting schedule does not require full compliance until June 1, 2008.

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

The requirements of the fifth minimum control measure, Post-Construction Storm Water Management in New Development and Redevelopment, are presented within the MS4 permit Section II.B.5. The following discussion of the co-permittees' efforts to meet the requirements of this minimum control measure is based on the Annual Report requirements in Section II.B.5.f. of the permit, and applicable sections of Appendix A of the permit.

1. 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

The ADOT&PF has published a series of structural and non-structural BMPs that can be used to manage post-construction runoff in Appendix F of the Alaska SWPPP Guide, available on the ADOT&PF website on its Statewide Design & Engineering Services page (http://www.dot.state.ak.us/stwddes/ dcsenviron /assets/pdf /swppp/english/eng_f.pdf). Appendix F of the Alaska SWPPP Guide does not currently contain requirements for the appropriate design and construction of snow disposal sites, septic systems, and parking lots. Future efforts for this control measure include development of a stand-alone design manual that will include these additional items. This manual will be included in the Annual Report for permit year 2009.

2. Design and performance features of the chosen BMPs that are intended to minimize water quality impacts

The co-permittees are in the early stages of identifying BMPs that will perform in the climate of the Fairbanks Urbanized Area. At this time, the main post-construction BMPs used in the Fairbanks Urbanized Area are street sweeping, public education, periodic sump pumping, and snow removal and storage. These BMPs are of a procedural nature and therefore do not have specific design and performance features, as do structural post-construction BMPs.

Last year, the COF built the Hill Road Retention Basin, the City's first storm water treatment pond, which is a type of structural, post-construction BMP. An as-built drawing of the Hill Road Retention Basin is shown in Appendix E. The structure retains all runoff during low ground water periods and small storm events. During these dryer periods 100% reduction in suspended solids is obtained. During higher water periods the structure functions as a detention pond. Under these conditions the surface area is 18497 sq ft, flow in and out is 42 cfs and detention time is 15 minutes. This provides a surface settling rate of .0023ft/s (.069cm/s) and will remove particles down to 55 microns (coarse silt). The out fall is treated with a bar screen structure with filter fabric covering to trap floating debris.

An explanation of the design performance features of the chosen post-construction BMPs will be provided once additional BMPs of this type have been identified. This explanation will be included in the Annual Report for permit year 2009.

3. ***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 Draft Ordinance for Post-Construction Storm Water Management is included in Appendix E. Presently, the COF, NP and FNSB plan to adopt identical ordinances as contractors, business owners, facility managers, etc., would benefit because identical ordinances would allow the same set of rules to be followed on any job regardless of whether the COF, NP, ADOT&PF, UAF, or FNSB was the owner of the project. This would reduce potential confusion caused by the existence of different ordinances that have the same basic purpose, but may have different fee structures, specifications, etc.

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

As stated previously, the co-permittees are in the early stages of identifying BMPs that will perform in the climate of the Fairbanks Urbanized Area. During the development of the BMP design manual, long term operation and maintenance will be addressed. Long term operation and maintenance of existing procedural BMPs, such as street sweeping, will be ensured by the continued ownership, use, and maintenance of the necessary equipment. The various co-permittees will be responsible for maintaining BMPs and equipment that are used within the properties and rights-of-way that belong to each.

A description of how long term operations and maintenance of the selected post-construction BMPs will be provided once additional post-construction BMPs have been identified and selected. This description will be included in the Annual Report for permit year 2009.

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

Presently there are no plans in place to inform and educate developers and the public about appropriate project designs that minimize water quality impacts. However, in the early winter of 2007 and spring of 2008, the co-permittees anticipate that planning will be initiated for such educational efforts. This effort will likely be combined with the instructional course required in Section II.B.5.f. of the MS4 permit in which local developers, engineers, and the public will be trained on the requirements of the BMP design manual. The co-permittees will work jointly to develop this training course.

Educational efforts are currently projected to take place sometime in calendar year 2008. A description of these efforts will be included in the Annual Report for either permit year 2008 or 2009.

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

Runoff sampling at storm water outfalls was performed in August 2006 and during spring breakup in 2007 in accordance with the monitoring requirements of the MS4 permit. Measurable goals have not yet been developed but are likely to include the requirement of no detectable impacts from post-construction sites at storm water outfalls. A list of measurable goals will be provided in the Annual Report for permit year 2009.

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

Each of the co-permittees is individually responsible for coordination and implementation of the post-construction storm water management program since many of the activities under this section are conducted within the properties and rights-of-way that belong to each. The names and titles of the persons responsible for each co-permittee are listed below:

COF:	Helena Byard, Engineer I
NP:	James Remitz , Public Works Director
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
ADOT&PF:	Darren Mulkey, Environmental Program Specialist

Summary of Activities

The co-permittees intend to initiate efforts to meet the requirements of the MS4 permit (AKS-053406) within the next calendar year with storm drain monitoring, and preliminary BMP identification. The co-permittees intend to fully meet the requirements of Section II.B.5. by June 1, 2009.

Compliance With Permit Requirements

The co-permittees are currently within the requirements of Section II.B.6. of the MS4 permit since the permitting schedule does not require full compliance until June 1, 2009.

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

The requirements of the sixth minimum control measure, Pollution Prevention and Good Housekeeping for Municipal Operations, are presented within the MS4 permit Section II.B.6. The following discussion of the co-permittees' efforts to meet the requirements of this minimum control measure is based on the Annual Report requirements in Section II.B.6.e. of the permit, and applicable sections of Appendix A of the permit.

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

Within their respective jurisdictions, the COF, NP, ADOT&PF, and UAF are responsible for placing gravel aggregate on roadways during winter months and cleaning the aggregate from roads and the storm drain systems during non freezing months. Street cleaning and sweeping activities generally proceed immediately following breakup in approximately late April through early May. When street cleaning and sweeping is completed the public works crews commence with flushing/cleaning lateral lines and pumping water/sediment/debris from manholes and sediment collection devices, culvert inlets, etc. In addition to an organized area-wide cleanup day, public works crews generally remove debris that collects in roadside to minimize impacts to the storm drain system, and clean vegetation from drainage ditches. A study of the effectiveness of the COF's street sweeping operations has been performed and was provided in the 2006 Annual Report.

Snow removal activities during winter months collect a significant quantity of debris that can impact the storm drain system and area waters. Snow storage sites utilized by the COF, NP, ADOT&PF and UAF are well-sited and graded for onsite containment of any accumulated debris during spring melting periods. This debris is then collected by public works crews.

UAF frequently sweeps the roads and parking facilities within the campus. A schedule of street and parking lot cleaning operations from June 2, 2006 to May 16, 2007 is provided in Appendix F. The primary duty of the Roads Crew is to maintain and clean the University streets and parking lots by performing asphalt repair and pothole patching, to perform routine sweeping and cleaning, and to perform sanding and snow removal during winter months. There are approximately eight miles of roadway and 52 parking lots covering over 1,000,000 square feet. The Roads and Grounds Shop's heavy equipment and operators routinely provide assistance to the grounds crew for landscaping projects include assistance with creating flowerbeds, clearing trees, establishing pathways, repairing lawn mowers, weed whips, snow blowers and handcarts. In the summer, the grounds crew maintains the University's 2,200 acres of landscape by mowing, irrigating, fertilizing, top dressing, aerating, edging and pruning. Tree and brush trimming and clearing is performed throughout the summer with the debris transported to the Ecology Dump site for composting and chipping, which is also maintained by the grounds crew.

2. 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

Maintenance practices to prevent and reduce storm water pollution that are also viable in Fairbanks' climate include aggressive cleaning/sweeping of streets and the MS4, incorporation and continued maintenance of sediment collection devices including Stormceptors® and oil water separators in future projects, and pro-active maintenance and operation of snow storage facilities. The Co-Permittees are currently conducting training sessions for personnel that include providing an overview of our Phase II Permit requirements and ensuring our personnel fully document sweeping/cleaning activities, quantities of sediment and debris collected, documentation of proper disposal of collected sediment and debris, quantities of snow collection and locations where disposed, etc. Targeted audiences for these sessions include public works personnel, ground crews, building maintenance personnel, and technical staff such as engineers and planners. The scope and length of training classes for these employees is a function of the impact of their jobs as related to storm water. Appropriate formats for training sessions include brief informational sessions presented at safety meetings, as well as two-hour classes in preparation for winter and summer seasonal work changes. Examples of 2-hour training classes include *MS4 Maintenance*, conducted in the spring, and *Snow Disposal Site Operation and Maintenance*, conducted prior to freeze-up.

Grounds maintenance at UAF is currently performed by 16 full-time Roads and Grounds Crew and Greenhouse personnel, and by up to 18 temporary summer hires. The grounds crew maintains the University's 2,200 acres of landscape by mowing, irrigating, fertilizing, top dressing, aerating, edging and pruning. In the greenhouse, over 50,000 annual flowers and plants are raised, cultivated, and maintained by the horticulturist. Tree and brush trimming and clearing is performed throughout the summer. Grass cuttings and tree debris are transported to the Ecology Dump site, where they are mulched and chipped respectively for recycling. All full-time personnel are given 8 hours of training annually on regulated pesticide use and safety, including how pesticides interact with the environment, with particular attention paid to leaching and runoff concerns. See Appendix F for information about the training manual. Additionally, all summer hire personnel are given an hour-long training on the use, storage, and handling of non-regulated pesticides using the materials from the Alaska Pesticide Safety training manual.

3. 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 line with the EPA's hazardous waste regulations, each of the co-permittees has been involved in the control of discharges of various chemicals and other materials generated from such areas as streets, parking lots, maintenance yards, storage yards, waste transfer stations, maintenance shops, salt and sand storage locations, and snow disposal sites. These efforts have resulted in the minimization of hazardous discharges to storm water. Such controls include oil recycling, glycol recycling, sand and gravel recycling, vehicle wash down areas, sumps in vehicle storage buildings,

wash racks that drain to the sanitary sewer, and controlled runoff at sand and snow disposal sites. Although these efforts have been made in accordance with other portions of the Clean Water Act, they provide a level of pollutant discharge control required under the MS4 permit.

At UAF, currently all fleet maintenance and repairs occur at the Facility Services Facility located at 803 Alumni Drive. Most University vehicles are washed at either the Facility Services Bus Bay, where the drain is connected to an oil/water separator and a municipal waste water sewer system, or at the exterior wash rack where runoff is collected into a grassy swale for infiltration onto University property. There are also three additional vehicle wash areas, one at the University Police Department, one at the University Fire Department Station #1, and one at the University Fire Department Station #2. Both the Police Department's and Station #1's bays are connected to the municipal waste water sewer system after passing through sumps. Station #2's bays are connected to an oil/water separator prior to discharging to the municipal waste water sewer system. All other University vehicles leased through the Facilities Services Transportation Services are issued passes to be used at local commercial car wash services.

All UAF Fire Department training activities involving wet operations occur at the Fairbanks Regional Fire Training Center, the Fairbanks International Airport Fire Training Area or at the University Fire Department Station #2, where training flows can be discharged onto a grassy field away from MS4 systems. Foam operations are limited to the Fairbanks Regional Fire Training Center and the Fairbanks International Airport.

Additional controls implemented during this reporting cycle include the use of slow-release and organic fertilizers on flower beds and lawns, and the use of water-saving techniques in order to minimize nutrient-laden runoff to the MS4. Controls to ensure the proper disposal of sediments removed from the MS4 are also in place. Additionally, controls that will maximize snow melt water detention and infiltration, while minimizing the leaching of de-icing substances in the snow pile will be implemented by the use of operational procedures at snow disposal sites.

4. 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 is currently storing sediment wastes removed from the MS4 in stockpiles at our public works facility. The ADOT&PF, NP, and UAF currently disposes of sediments collected during maintenance operations at the local Class II solid waste landfill. Each of the co-permittees will initiate efforts to ensure formal procedures are developed for tracking the disposal of waste removed from the MS4 and the MS4 operations within the coming year. Appendix F contains a preliminary tracking system developed by the COF.

5. 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

There are no new flood management projects planned for the Fairbanks Urbanized Area that are under the jurisdiction of any of the co-permittees.

6. 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 (MSGP) 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 currently discharge to the MS4.

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

Measurable goals for the 2007-2008 reporting year are continued aggressive street sweeping and storm drain cleaning operations, the development and implementation of employee training classes in Snow Disposal Site Operation and Maintenance in the fall of 2007, and MS4 Maintenance in the Spring of 2008. The co-permittees will continue to implement of water-saving techniques in landscaping applications.

8. Persons responsible for coordination and implementation of the pollution prevention and good housekeeping program

Each of the co-permittees is individually responsible for coordination and implementation of the pollution prevention and good housekeeping program since many of the activities under this section are conducted within the properties and rights-of-way that belong to each. The names and titles of the persons responsible for each co-permittee are as follows:

COF:	Michael Schmetzer, City Engineer/Deputy Public Works Director
NP:	James Remitz, Public Works Director
UAF:	Thaddeus Williamson, Environmental Health, Safety, and Risk Management Department Safety Officer
ADOT&PF:	Darren Mulkey, Environmental Program Specialist

Summary of Activities

The co-permittees have initiated efforts to meet permit requirements with the implementation of employee training, and the implementation of water-saving techniques in landscaping applications. The co-permittees intend to fully meet the requirements of Section II.B.6. by June 1, 2007.

Compliance With Permit Requirements

The co-permittees are currently within the requirements of Section II.B.6. of the MS4 permit.

II.C. Storm Water Management Plan Evaluation

The following sections provide an evaluation of the SWMP as it pertains to the permit compliance activities completed to date.

Evaluation of Efforts on Minimum Control Measure 1 - Public Education and Outreach, and Minimum Control Measure 2 - Public Involvement / Participation

There has been excellent exposure and response to the public education and outreach efforts performed over the previous 12-month period. Over 5900 people have received a message about the SWMP through the World Wide Web, PSAs, *Stormwater is Cool* presentations at local schools, the Fairbanks Outdoors Days, as well as distribution of storm water educational at local events such as fairs and shows. A potential audience of 5,000 people may have heard PSAs broadcast regarding the Chena Slough cleanup held in August 2006, and more than 300 mail-outs on the cleanup efforts were sent to residents living along the slough, and roughly 30 local citizens participated in the cleanup. Ongoing efforts for storm drain stenciling are progressing well. The FSWAC has been meeting regularly since the permit effective date; the meetings are open to the public, and the meeting schedule is posted on the internet.

Both minimum control measures 1 and 2 rely on procedural versus structural BMPs to control the discharge of sediment, petroleum products, and debris to waters of the U.S. from the MS4. Procedural BMPs are the planning, design, maintenance, and education measures that are applied in order to protect the environment from adverse effects. Procedural controls rely on processes rather than devices to provide environmental protection. It is the opinion of the preparer that the procedural BMPs for both the public education and outreach, and public involvement and participation efforts to date are helping to make significant progress toward the control of the discharge of sediment, petroleum products, and debris to waters of the U.S. from the MS4.

Evaluation of Efforts on Minimum. Control Measure 3 - Illicit Discharge Detection and Elimination

Additional MS4 mapping and hydrologic study activities are slated for this year. Primarily, the respective jurisdictions of each of the co-permittees will be clearly delineated, and the MS4 mapping efforts of each co-permittee will be synthesized and integrated.

During the Chena Slough cleanup and the *Stormwater is Cool* presentations discussed above, the co-permittees also provided information about illicit discharges and improper disposal methods to the public.

The efforts for minimum control measure 3 are ahead of schedule. It is the opinion of the preparer that the initial illicit discharge detection and elimination efforts performed to date are helping to make reasonable progress toward the control of the discharge of sediment, petroleum products, and debris to waters of the U.S. from the MS4.

Evaluation of Efforts on Minimum Control Measure 4 - Construction Site Storm Water Runoff Control

The Construction Site Storm Water Runoff Ordinance should be fully adopted by all local governments and enforceable by September 2008. It is the intent of the Co-Permittees and the FNSB to educate the regulated community from September 2007 through March 2008, and fully implement the new program at the COF, NP and FNSB in April 2008.

Evaluation of Efforts on Minimum Control Measure 5 – Post-Construction Storm Water Management in New Development and Redevelopment

The permit compliance schedule does not necessitate Post-Construction Storm Water Management progress at this time. The draft ordinance is written and efforts to educate the local governments on adoption and implementation of this ordinance are in progress and well ahead of the scheduled compliance date of June 2009.

Evaluation of Efforts on Minimum Control Measure 6 - Pollution Prevention and Good Housekeeping for Municipal Operations

Activities initiated or completed to date falling under the purview of the pollution prevention and good housekeeping for municipal operations minimum control measure include: street sweeping and drainage system cleaning by ADOT&PF, COF, and UAF; construction in accordance with FNSB flood management ordinances; municipal operations in line with EPA's hazardous waste regulations; and training classes developed for municipal employees regarding the application of landscaping chemicals, MS4 maintenance, and snow disposal site operation and maintenance.

The Chena River Lakes Flood Control Project, which includes the Moose Creek Dam and Tanana River Levee, is managed by the U.S. Army Corps of Engineers, and does not fall within the jurisdiction of any of the co-permittees. No new flood management projects are anticipated for the Fairbanks Urbanized Area in the near future, therefore, the co-permittees will, within the next several months, formally request of the EPA that this permit be modified by deleting sections II.B.6.d., and II.B.6.e.(5), which are not applicable to any of the co-permittees.

The co-permittees will also request that the EPA delete section II.B.6.e.(6), since none of the co-permittees own or operate industrial facilities that are subject to EPA's Multi-Sector General Permit (MSGP) or individual NPDES permits for discharges of storm water associated with industrial activity.