

2019 ANNUAL REPORT

Alaska Pollutant Discharge Elimination System Permit No. AKS-053414



January 31, 2020

2019 ANNUAL REPORT

This Annual Report documents the activities undertaken January through December 2019 to comply with the requirements of Alaska Pollutant Discharge Elimination System Permit No. AKS-053414 issued by the Alaska Department of Environmental Conservation to the Fairbanks North Star Borough. By signature below, this report is hereby certified in accordance with 18 AAC 83.385.

"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."

FAIRBANKS NORTH STAR BOROUGH



Janet Smith, Deputy Director, Public Works

01.27.2020

Date

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STORM WATER PERMIT OVERVIEW

Storm Water Permit Overview

INTRODUCTION

This Annual Report documents the activities undertaken January through December 2019 to comply with the requirements of Alaska Pollutant Discharge Elimination System (APDES) Permit No. AKS-053414 issued by the Alaska Department of Environmental Conservation (ADEC) to the Fairbanks North Star Borough (FNSB). Annual Reports are required to be submitted to the ADEC in accordance with Section 4.3 of the permit. The last report documented activities undertaken January 2018 through December 2018. Annual reports are required to be submitted to the ADEC by February 15.

PERMIT HISTORY

The FNSB was originally issued a Phase II National Pollutant Discharge Elimination System (NPDES) Permit from the U.S. Environmental Protection Agency (EPA) on June 1, 2005 for a term of five years. The ADEC later assumed authority over the permit in October 2009 under the APDES Program and provided an administrative extension for the existing permit's requirements to remain effective and enforceable until a new permit could be developed and issued. The new permit, with new requirements, was issued to the FNSB in June 2013 with an effective five-year term beginning August 1, 2013 and expiring July 31, 2018. FNSB and ADCE went through the permit renewal process in 2018 resulting in a slightly modified new five-year permit with an effective term starting July 1, 2018 and expiring June 30, 2023. A copy of the permit can be found at <http://www.co.fairbanks.ak.us/pw/StormWater/FNSBPermit.pdf>. This annual report documents compliance with the current permit that covered the calendar year 2019.

COVERAGE AREA

The permit covers all areas within the boundary of the Fairbanks Urbanized Area that are served by the municipal separate storm sewer system (MS4) owned and operated by the FNSB. Urbanized area boundaries are established by U.S. Census Bureau and defined as the core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. The current boundary of the Fairbanks Urbanized Area was established using data from the 2010 Census. A map of this boundary can be found at <http://fnsb.us/pw/StormWaterDocuments/MS4boundary.pdf>

AUTHORIZED DISCHARGE

With some limitations, the permit authorizes the FNSB to discharge storm water to waters of the U.S. from all portions of the MS4 owned and operated by the FNSB located within the boundary of the Fairbanks Urbanized Area. The limitations are outlined in Section 1.4 of the permit and include non-storm water discharges, discharges threatening water quality, snow disposal to receiving waters, and discharges to water quality-impaired receiving waters.

STORM WATER PERMIT OVERVIEW

PERMIT REQUIREMENTS

The permit requires the FNSB to develop and implement a Storm Water Management Program and meet the individual requirements of the following minimum control measures:

1. Public Education & Outreach
2. Public Involvement & Participation
3. Illicit Discharge Detection & Elimination
4. Construction Site Storm Water Runoff Control
5. Post-construction Storm Water Management
6. Pollution Prevention & Good Housekeeping

The Program is documented in the Storm Water Management Plan, which was written by the FNSB in April 2014 and updated in December 2019. The plan without appendices is attached in Appendix G of this report and the entire plan can be found at <http://fnsb.us/pw/StormWater/FNSBMPlan.pdf>. The plan identifies best management practices (BMPs) and other strategies to meet the requirements of the minimum control measures and reduce the discharge of pollutants from the MS4 to the maximum extent practicable to protect the water quality of receiving waters. Documentation of the activities undertaken in accordance with the plan is included in the following sections of this report and Appendices A through G.

ANNUAL REPORTS

In accordance with Section 4.3 of the permit, Annual Reports must include:

- An updated Storm Water Management Plan document.
- Description of the effectiveness of each Plan component or activity.
- Planned activities and changes for the next reporting period for each plan component or activity.
- An evaluation of compliance with the requirements of this permit, the appropriateness of identified BMPs, and progress toward achieving identified measurable goals of each minimum control measure.
- Results of any information collected and analyzed during the previous reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the maximum extent practicable.
- A summary of the activities the FNSB plans to undertake during the next reporting cycle (including an implementation schedule) for each minimum control measure.
- Proposed changes and completed changes to the Storm Water Management Plan, including changes to any BMPs or any identified measurable goals for any minimum control measure.
- Description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable water quality standards.
- Notice if the FNSB is relying on another entity to satisfy some of the permit obligations, if applicable.

MINIMUM CONTROL MEASURES

Minimum Control Measures

The following subsections list the individual requirements for each minimum control measure, a description of the activities undertaken by the FNSB to comply with those requirements, and measureable goals for the next reporting period.

PUBLIC EDUCATION & OUTREACH

Permit Requirements

To date, the FNSB has met all the requirements under Minimum Control Measure 1 – Public Education & Outreach. The following table provides a summary of the individual requirements, compliance dates, and status as of December 2019.

Permit Requirements	Compliance Date	Status
<i>FNSB must maintain a public education program to educate the community about the impacts of storm water discharges on water bodies and the steps that citizens and businesses can take to reduce pollutants in storm water runoff.</i> [Section 3.1.1]	Annually	Complete, ongoing
<i>At least annually, the FNSB must distribute storm water educational materials to target audiences that encourage the public to improve water quality.</i> [Section 3.1.2]	Annually	Complete, ongoing
<i>At least annually, the FNSB must prepare and distribute appropriate information that encourages the public to improve water quality to local media outlets.</i> [Section 3.1.3]	Annually	Complete, ongoing

Compliance Activities

The City of Fairbanks, City of North Pole, University of Alaska, Fairbanks and the Alaska Department of Transportation & Public Facilities – Northern Region (Fairbanks permittees) have a separate but similar APDES permit (Fairbanks Permit) to the FNSB. The FNSB and Fairbanks permittees have worked together since 2005 to implement a unified public education program on local storm water issues. The program’s 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 2019 reporting year included the following:

- Updating and maintaining an informative storm water management program website
- Providing educational presentations on storm water at local schools
- Providing guest presentations on storm water to interested groups
- Distributing educational material at local events and by mail

MINIMUM CONTROL MEASURES

- Other Public Education and Outreach Activities

Fairbanks Storm Water Management Program Webpage

The website can be viewed at <http://fnsb.us/pw/Pages/Storm-Water.aspx>. It provides an overview of storm water and pollutants of concern in the Fairbanks area, program information for each of the six Minimum Control Measures, a list of ways the public can get involved (i.e. attending storm water committee meetings, participating in stream cleanup events, etc.), links to the City of Fairbanks, City of North Pole, and FNSB storm water ordinances and corresponding site development plan review requirements, a link to access and view the comprehensive storm drain system map of the entire FNSB, links to local publications such as the Green Infrastructure Resource Guide for Fairbanks and Best Management Practice (BMP) Effectiveness Report for Fairbanks, directions on how to report illicit discharges, and contact information for the storm water coordinators for each of the FNSB and Fairbanks co-permittees. The website also provides links to the ADEC Storm Water Program webpage, ADEC Construction General Permit, ADEC Alaska Storm Water Guide, Cities of Fairbanks and North Pole Storm Water Management Program Guide, FNSB BMP Design Guide, Site Development Plan Review Requirements that includes a map and storm water plan submittal flowchart for the Fairbanks Urbanized Area, the current APDES MS4 Permits, the most recent MS4 Annual Reports, and brochures such as the Snow Storage & Disposal for Local Contractors and 10 Ways You Can Prevent Storm Water Runoff Pollution. In 2019 the website had 1040 visitors.

Educational Presentations on Storm Water at Local Schools

As in previous reporting years, the FNSB and Fairbanks Permittees partnered to deliver storm water educational presentations to various FNSB elementary and middle schools in Fairbanks and North Pole. The elementary school presentation consists of a 30-minute slideshow 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 using the EnviroScape® Nonpoint Source Model. The model helps children make the visual connection between what they learned during the slide show and what happens in their local watershed. The children watch storm water pick up pollutants (i.e. colored drink mixes) in a suburban area and carry them to a lake. The middle school presentation consists of a different slide show that is a little more historical and technical. This presentation is followed by a short verbal quiz/question and answer period. After each presentation, promotional items such as bracelets, magnets, pencils, stickers, and education materials are distributed. In 2019, there were 29 presentations delivered to 647 elementary and middle school children in April, May, and September. A copy of the slide show presentations, picture of the model and goodies given to students, and a spreadsheet outlining participation are included in Appendix A.

The co-permittees also participated in the Pearl Creek Elementary school's STEM (Science, Technology, Engineering, & Mathematics) event held on February 1, 2019, the Earth Day Celebration at Fort Wainwright on April 18th, and UAF Outdoor Days on May 7-9th. At each event a storm water educational station was hosted with watershed model demonstrations and hands-on laboratory experiments. Combined with in-class presentations, 1857 local students from a total of 20 elementary school classes had an opportunity to learn from, and interact with, the watershed model demonstration. A summary of all educational presentations and the number of FNSB School District students in attendance is included in Appendix A.

MINIMUM CONTROL MEASURES

Guest Presentations on Storm Water

The Fairbanks co-permittees also provided the following guest presentations on Fairbanks storm water in 2019:

- Greater Fairbanks Chamber of Commerce Transportation Infrastructure Committee Guest Speaker- “Storm water Management in Fairbanks, Alaska” – 25 local transportation leaders in attendance.
- UAF Natural Resources Management F370 Introduction to Watershed Management class- “Storm water Management”-10 students and faculty in attendance.

Copies of the slideshows for these presentations are included in Appendix A.

Educational Material Distribution

2019 Fairbanks IABA Home Show event- The Fairbanks Permittees distributed educational materials at the Home Show in Fairbanks during the weekend of March 22-24, 2019, at the Fairbanks Soil & Water Conservation District’s (FSWCD’s) 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, equipment, and services. Approximately 140 vendors participate each year with an average of 5,000 people attending over a 3-day weekend. At this year’s event, the Permittees distributed copies of the Green Infrastructure Resource Guide for Fairbanks and corresponding brochures. There was also a public raffle for a rain barrel. 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 guide, which includes copies of the brochures appended to the guide, can be found at <http://www.fairbanksgig.com/benefits/> or <http://fnsb.us/pw/Pages/Storm-Water.aspx>.

In conjunction with the Home Show event, FNSB placed a storm water advertisement in a special section of the Fairbanks Daily News-Miner newspaper – the “Building, Home & Garden Tab,” section that was published on March 22, 2019. The advertisement was republished in the “Homes Magazine” on May 31, 2019 and targeted local developers/engineers/contractors to make them aware of the local storm water plan review and permitting requirements for the City of Fairbanks, City of North Pole, and the FNSB. A copy of the advertisement is included in Appendix A.

2019 Fort Wainwright Earth Day Fair – At the invitation of the U.S. Army Garrison, the Fairbanks Permittees hosted a booth at the Earth Day Fair held on April 18, 2019. The booth showcased the educational materials used in classrooms, including the EnviroScape® Nonpoint Source Model and posters showing pictures of storm water conveyance systems and examples of illicit discharges. As giveaways, the people who stopped by the booth were given storm water bracelets, magnets, pencils, and stickers. Over 516 local school children visited the booth during the fair.

2019 Outdoor Days - Tanana Valley Watershed Association (TVWA) and UAF had a booth, May 7th, 8th, and 9th at the US Fish and Wildlife Service, Outdoor Days. TVWA and UAF distributed and displayed information on Adopt-A-Stream (AAS), Green Infrastructure, bio-accumulation of plastics within food chains, and Storm

MINIMUM CONTROL MEASURES

Water Pollution Prevention to 544 Fairbanks North Star Borough 6th graders. All students who attended the event were given water quality equipment, shown how to conduct water quality sampling, and then participated in sampling water from Tanana Lakes.

2019 Fairbanks Midnight Sun Festival – TVWA had a booth at the June 23, 2019 festival and distributed and displayed information on Adopt-A-Stream (AAS), Green Infrastructure, and Storm Water Pollution Prevention. Additionally, information about the Annual Stream Clean-up Day and the Storm Drain Art contest was made available.

Direct Mailings - In the spring of 2019, the FNSB sent out the *Erosion and Sediment Control Practices for Small Construction Sites* pamphlet to licensed general, residential, and landscape contractors in the Fairbanks Area. In the summer, Tanana Valley Watershed Association sent out *Living Alongside Salmon Homes* booklet, *Voices of the Chena* postcard, and *Resident/Business Cleaner Chena* (<https://static1.squarespace.com/static/52bdf76de4b0d60918f1e592/t/5baac92de2c4833a6f7c9b37/1537919297949/Living+Alongside+Salmon+Homes+2018+-+Final+Draft.pdf>) brochures. In the fall, *the Snow Storage and Disposal Practices for Local Contractors* pamphlet was sent to known landscape and snow removal contractors. See Appendix A for pamphlets.

Public Service Announcements

In the Spring of 2019, The Fairbanks co-permittees arrange for a “Don’t Pollute” Public Service Announcement (PSA) on local radio stations that reminds people of the function of the storm drain systems and the importance of keeping them clean. PSA text provided in Appendix A.

Other Public Education & Outreach Activities

Additional public education and outreach activities completed during the 2019 reporting year included hosting a stream cleanup day event, supporting the local Adopt-A-Stream (AAS) Program, implementing a storm drain stenciling program, assisting and supporting a storm drain art contest, and convening monthly storm water advisory committee meetings open to the public; all of which are later discussed under Minimum Control Measure 2 – Public Involvement & Participation.

Staff Responsible for Compliance Activities

The following individuals were responsible for implementing and coordinating the public education and outreach activities during the 2019 reporting period:

- FNSB – Chad Hosier, Civil Engineer/Storm Water
- FNSB – Janet Smith, Deputy Director, Public Works

Measureable Goals

The following table details the measureable goals set forth in the FNSB’s July 2014 and amended December 2019 Storm Water Management Plan, whether or not the goals were achieved during the current reporting period, and lists proposed changes, if any, for the next reporting period.

MINIMUM CONTROL MEASURES

Measureable Goals	Achieved during current reporting period?	Proposed changes for next reporting period?
Maintain the Storm Water Management Program website for the duration of the permit term	Yes	No
Annually provide a minimum of 15 educational presentations on storm water at local schools	Yes	No
Annually provide guest presentations on storm water to local interest groups, as requested	Yes	No
Annually distribute storm water educational brochures at a minimum of two local events	Yes	No
Annually mail educational brochures to landscaping, snow removal, and building contractors	Yes	No
Annually issue at least one PSA to local media outlets for broadcast	Yes	No

MINIMUM CONTROL MEASURES

PUBLIC INVOLVEMENT & PARTICIPATION

Permit Requirements

To date, the FNSB has met all of the requirements under Minimum Control Measure 2 – Public Involvement & Participation. The following table provides a summary of the individual requirements, compliance dates, and status as of December 2019.

Permit Requirements	Compliance Date	Status
<i>FNSB must comply with applicable state and local public notice requirements when implementing a public involvement/participation program. [Section 3.2.1]</i>	Annually	Complete, ongoing
<i>FNSB must continue to make the Storm Water Management Plan and all Annual Reports available to the public through the municipal library system, an FNSB / Fairbanks co-permittee-maintained website, or other easily accessible location. Public outreach should include location information whenever appropriate. [Section 3.2.2]</i>	Annually	Complete, ongoing
<i>FNSB must continue the Storm Water Advisory Committee. The Storm Water Advisory Committee meeting schedule must be made known to the public and ADEC through direct mail or e-mail notification, if possible, and other locally appropriate means. [Section 3.2.3]</i>	Quarterly	Complete, ongoing
<i>FNSB must continue to implement a storm drain stenciling program. [Section 3.2.4]</i>	Annually	Complete, ongoing
<i>At least annually, FNSB must continue to host a community Stream Cleanup Day. [Section 3.2.5]</i>	Annually	Complete, ongoing
<i>FNSB must maintain the means of providing relevant storm water information to and accepting input from the public through providing the public with internet access via a website, a telephone hotline, and/or other appropriate means. The availability of this education and communication tool must be advertised to the public through the FNSB's ongoing public education efforts. [Section 3.2.6]</i>	Annually	Complete, ongoing

Compliance Activities

Public Notices

The FNSB follows the public notice requirements of the State of Alaska's Administrative Procedures Act (AS 44.62), including but not limited to the Open Meetings Act (AS 44.62.310), as well as all internal policies.

Storm Water Management Plan & Annual Reports

Copies of both the FNSB's and Fairbanks co-permittees' APDES permits, Storm Water Management Plans, and most recent Annual Reports submitted to ADEC are made available to the public through the Fairbanks Storm Water Management Program website at <http://fnsb.us/pw/Pages/Storm-Water.aspx>.

Fairbanks Storm Water Advisory Committee

In 2003, the FNSB and the Fairbanks Permittees formed the Fairbanks Storm Water Advisory Committee (FSWAC) to coordinate and carry out the development, implementation, and review of the Fairbanks Storm Water Management Program. The FSWAC is comprised of agency representatives from each of the Fairbanks

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Permittees' agencies, the FNSB, ADEC, as well as two citizen members from Fairbanks and North Pole serving as representatives of their respective communities. The FSWAC meets at Fairbanks City Hall on the second Thursday of each month from 11:00a.m. to 12:30 p.m. All meetings are open and advertised to the public. The meeting schedule is posted on the Fairbanks Storm Water Management Program website, in the local newspaper at least one week in advance of each meeting, and via email to the FSWAC's email distribution list. Minutes are drafted and approved by the FSWAC for every meeting held. Copies of the minutes for the 2019 reporting period are included in Appendix B.

Storm Drain Stenciling Program

FNSB annually stencils storm drain inlets to bring attention to inlets, educate the public on where storm water drains empty to, and discourage illicit discharges. There is a common misconception that storm drains flow to the City's sewer treatment plant, and the stenciling program helps clear up this misconception. The FNSB storm drain stencil has an outline of a salmon on it with the words "Dump No Waste, Drains to River". During the 2019 reporting year, the FNSB stenciled all 5 of its known inlets and placed a permanent sign at a 6th inlet. Photos of stenciling completed in the past and a spreadsheet of the current locations are included in Appendix B. A permanent sign was installed in place of the stencil at one storm drain location. A picture of the installed sign is also included in Appendix B.

Storm Drain Art Contest

In coordination with the storm drain stenciling program, the co-permittees held the 6th annual Storm Drain Art Contest in downtown Fairbanks with help from the TVWA. In total, 9-artists painted 10-storm drains on 5th Avenue, June 15, 2019. The art was themed to bring awareness to the public that our storm drains empty into the river (i.e. not the wastewater treatment plant). Pictures of the finished artwork, a storm drain art article, TVWA Storm Drain Art Report, and the flyer for the contest are included in Appendix B.

2019 Annual Stream Cleanup Day Event

FNSB and the Fairbanks Permittees held the 15th Annual Stream Cleanup Day event in Fairbanks on June 08, 2019. Volunteers were assigned to clean up the various sections of the 5.5-mile long Noyes slough and the 2.5-mile long section of the Chena River running through downtown Fairbanks. In total, 35 people volunteered for the event and removed over 1000 pounds of trash (including litter, bags, tires, vehicle parts, bicycles, and various other items) out of the waterways. Volunteers included residents who live or work along the waterways, as well as a number of other citizens and community groups who responded to the advertisements. Participants are given a Stream Cleanup Day T-Shirt and a meal prepared by the Lions Club. Copies of the 2019 Stream Cleanup Day flyer, photos, picture of the Stream Cleanup Day T-Shirt, and participant's briefing sheet, are included in Appendix B.

Fairbanks Storm Water Management Program Website

The FNSB maintains and hosts the Fairbanks Storm Water Management Program website. As described in previous sections the website can be viewed at: <http://fnsb.us/pw/Pages/Storm-Water.aspx>. It provides an overview of storm water and pollutants of concern in the Fairbanks area, program information for the six Minimum Control Measures, a list of ways the public can get involved (i.e. attending storm water committee meetings, participating in stream cleanup events, etc.). links to the FNSB, City of Fairbanks, and City of North Pole storm water ordinances, corresponding site development plan review requirements, a link to access and

MINIMUM CONTROL MEASURES

view the comprehensive storm drain system map of the entire FNSB, links to local publications such as the Green Infrastructure Resource Guide for Fairbanks and Best Management Practice (BMP) Effectiveness Report for Fairbanks, directions on how to report illicit discharges, and contact information for the storm water coordinators for each of the Fairbanks Permittees and FNSB. The website also provides viewers links to the ADEC Storm Water Guide, and a Fairbanks Urbanized Area map and storm water submittal flowchart for the Area. The website address is printed on educational brochures distributed at local events and through the mail.

Public Comments Log

In addition to all of the activities listed above, the FNSB maintains 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 staff to be addressed. Public comments received during the 2019 reporting period, including documentation of their resolution (if needed), are included in Appendix B.

Staff Responsible for Compliance Activities

The following individuals were responsible for implementing and coordinating the public involvement and participation activities during the 2019 reporting period:

- FNSB – Chad Hosier, Civil Engineer/Storm Water
- FNSB – Janet Smith, Deputy Director, Public Works

Measureable Goals

The following table details the measureable goals set forth in the FNSB's July 2014 and amended December 2019 Storm Water Management Plan, whether or not the goals were achieved during the current reporting period, and lists proposed changes, if any, for the next reporting period.

Measureable Goals	Achieved during current reporting period?	Proposed changes for next reporting period?
Continue holding monthly FSWAC meetings for the duration of the permit term	Yes	No
Annually stencil FNSB storm drain inlets	Yes	No
Annually host a Stream Cleanup Day event	Yes	No
Maintain the Storm Water Management Program Website for the duration of the permit term	Yes	No

MINIMUM CONTROL MEASURES

ILLICIT DISCHARGE DETECTION & ELIMINATION

Permit Requirements

To date, the FNSB has met all, of the requirements under Minimum Control Measure 3 – Illicit Discharge Detection & Elimination. The following table provides a summary of the individual requirements, compliance dates, and status as of December 2019.

Permit Requirements	Compliance Date	Status
<i>FNSB shall review and revise as necessary, the program to detect and eliminate illicit discharges. FNSB must, as part of this activity, maintain an information management system to track illicit discharges. [Section 3.3.1]</i>	Annually	Complete, ongoing
<i>FNSB must review and revise an inventory and map of industrial facilities and activities that are covered by the Multi-Sector General Permits (MSGP), AKR060000 and that discharge directly to their MS4. At a minimum, the inventory must include the facility name and address, nature of the business or activity, Standard Industrial Classification code(s) or the newer North American Industry Classification System that best reflect the facility product or service, the receiving water body, and type of pollutants that may be discharged by the facility or activity. [Section 3.3.2]</i>	Annually	Complete
<i>FNSB must review the effectiveness and revise ordinances that effectively prohibit non-storm water discharges into their MS4s. FNSB must implement appropriate enforcement procedures and actions, including enforcement escalation procedures for recalcitrant or repeat offenders. [Section 3.3.3]</i>	Annually	Complete, ongoing
<i>FNSB must prohibit any of the non-storm water flows listed in Part 1.4.1.3 through ordinance if such flows are identified by DEC or the FNSB as a source of pollutants to the MS4. FNSB must document any existing local controls or conditions placed on such discharges. [Section 3.3.4]</i>	Annually	Complete, ongoing
<i>Annually, FNSB must inform users of the MS4 and the general public of hazards associated with illegal discharges and improper disposal of waste. [Section 3.3.5]</i>	Annually	Complete, ongoing
<i>FNSB must review and update the comprehensive MS4 map. At a minimum, the map must show jurisdictional boundaries, the location of all inlets and outfalls, names and locations of all waters that receive discharges from those outfalls, and locations of all municipally-owned and operated facilities, including public snow disposal sites. If available, locations of all privately operated snow disposal sites must also be indicated on the comprehensive map. A copy of the completed map must be submitted to DEC as part of the Annual Report. [Section 3.3.6]</i>	Annually	Complete, ongoing

MINIMUM CONTROL MEASURES

<p><i>FNSB must continue dry weather field screening for non-storm water flows from all outfalls. By no later than the expiration date of this permit, all of the FNSB's outfalls within the permit area must be screened for dry weather flows. The screening should include field tests of selected chemical parameters as indicators of discharge sources where sufficient flow is found at an outfall to allow for monitoring. Screening level tests may utilize less expensive "field test kits" using test methods not approved by EPA under 40 CFR Part 136 (adopted by reference at 18 AAC 83.010), provided the manufacturer's published detection ranges are adequate for the illicit discharge detection purposes. FNSB must investigate any illicit discharge within 15 days of its detection and must take action to eliminate the source of the discharge within 45 days of its detection. Raw data and narrative review of screening and mapping shall be included in the following year's Annual Report from the year the data was collected. [Section 3.3.7]</i></p>	<p>July 1, 2023</p>	<p>Complete, ongoing</p>
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Compliance Activities

Illicit Discharge Investigations

Illicit discharge investigations are initiated when the FNSB has been notified a discharge occurred. Most notifications come from the general public. Commonly the discharge is observed at its source and the responsible party is readily apparent.

Every illicit discharge detected is entered into the FNSB's Public Comment Log, which records the date, location, and nature of the discharge, as well as a written description of the follow-up investigations and resolutions. A copy of the Fairbanks Co-Permittee log for the 2019 reporting year is included in Appendix C.

Industrial Facilities Map

In June 2016, the FNSB updated the MS4 map to include the locations of all industrial facilities and activities covered by the APDES MSGP in the Fairbanks area. In February 2017, the FNSB published an updated online MS4 map of industrial activity storm water permits at:

<https://gisportal.fnsb.us/enterprise/apps/webappviewer/index.html?id=37bbc56b8f73477f8ee1c0f2ec2d161c>. A copy of the map is included in Appendix C.

Illicit Discharge Ordinances

On June 12, 2008, FNSB adopted Ordinance 2008-22 establishing Title 21 of the FNSB Code of Ordinances. The FNSB re-codified Title 21 to Title 13 August 2016. At that time, the ordinance was reviewed in accordance with the requirement set forth in the permit. Chapter 13.12 prohibits illicit discharges to the MS4 through storm water, direct dumping, or snow clearance operations and requires immediate notification upon identifying a violation. The FNSB illicit discharge enforcement policy is regulated in Title 1 by the fine schedule. The schedule was revised as part of Ordinance 2008-22 to include fines on an escalation basis for illicit discharges and failure to notify authorities of illicit discharges. The ordinances can be accessed at: <http://fnsb.us/pw/Pages/Storm-Water-Ordinances.aspx>.

MINIMUM CONTROL MEASURES

Public Awareness Efforts

As discussed under the “Public Education & Outreach” and “Public Involvement & Participation” subsections, efforts are made annually to inform the public about illicit discharges and improper disposal of waste. Efforts include (1) maintaining the Fairbanks Storm Water Management Program website, which outlines procedures for reporting illicit discharges to the Fairbanks-permittees and FNSB; (2) incorporating information about the types and causes of illicit discharges into the educational/guest presentations on storm water; (3) implementing the Storm Drain Stenciling Program, which creates public awareness about where storm water goes after it enters a storm drain inlet; and (4) mailing brochures to local landscaping and snow removal contractors, which apprises them of the local illicit discharge ordinances.

Comprehensive MS4 Map Update

In 2008, FNSB and the Fairbanks permittees combined their individual MS4 maps into a single comprehensive map showing all storm water conveyance systems within the Fairbanks Urbanized Area. The map currently resides within the FNSB’s Geographical Information System (GIS) database and was last update in February 2017, and can be accessed by the public at:

<https://gisportal.fnsb.us/enterprise/apps/webappviewer/index.html?id=37bbc56b8f73477f8ee1c0f2ec2d161c>. The map contains all jurisdictional boundaries, storm drain inlets and outfalls, outfall receiving waters, and the FNSB and Fairbanks co-permittees owned and operated facilities, including snow disposal sites. From 2013 to the present, the ADOT&PF Northern Region Hydraulics Section furthered this effort by hiring a consultant to perform additional field surveying and modeling of the MS4. The initial study area was bound by Davis Road, Lathrop Street, Peger Road, and the Chena River, and the consultant is now working in downtown Fairbanks. The previous 2008 mapping efforts collected only horizontal data for the MS4, whereas this new effort is collecting both horizontal and vertical data and modeling different storm events using Bentley CivilStorm® software to look for deficiencies in the system. A progress report titled “Fairbanks Area Drainage Improvements Plan, Phase II” was included in the 2016 report.

Dry-weather Outfall Screening

FNSB began conducting dry-weather screening outfalls in 2008 and has screened all known MS4 outfalls in, 2010-2012 and 2014-2019. FNSB has not detected flow at any of the outfalls; therefore, testing for pollutant types has not been conducted. In accordance with the requirements of the permit, FNSB will again screen every outfall owned and operated by the FNSB prior to the end of the permit term – June 30, 2023.

Staff Responsible for Compliance Activities

The following individuals were responsible for implementing and coordinating the illicit discharge detection and elimination activities during the 2019 reporting period:

- FNSB – Chad Hosier, Civil Engineer/Storm Water
- FNSB – Janet Smith, Deputy Director, Public Works

MINIMUM CONTROL MEASURES

Measureable Goals

The following table details the measureable goals set forth in the FNSB's July 2014 and amended December 2019 Storm Water Management Plan, whether or not the goals were achieved during the current reporting period, and lists proposed changes, if any, for the next reporting period.

Measureable Goals	Achieved during current reporting period?	Proposed changes for next reporting period?
Maintain an inventory and map of MSGP-covered facilities and activities	Yes	No
Review and revise, as necessary, the Illicit Discharge Ordinances annually	Yes	No
Review and update the comprehensive MS4 map as necessary	Yes	No
Screen 100% of the outfalls owned and operated by FNSB by June 20, 2023	Yes	No

MINIMUM CONTROL MEASURES

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Permit Requirements

To date, FNSB has met all but one of the requirements under Minimum Control Measure 4 – Construction Site Storm Water Runoff Control. These provisions will be developed and implemented by the end of 2020. The following table provides a summary of the individual requirements, compliance dates, and status as of December 2019.

Permit Requirements	Compliance Date	Status
<i>FNSB must annually review and implement its existing program that reduces pollutants in any storm water runoff to the MS4 from construction activities with this permit and the current version of the APDES General Permit for Storm Water Discharges from Large and Small Construction Activities in Alaska Permit #: AKR100000 (Construction General Permit or CGP). FNSB must discuss revisions, planned improvements, and schedule in the Annual Report. [Section 3.4.1]</i>	Annually	Complete, ongoing
<i>FNSB must maintain an ordinance or other regulatory mechanism to be consistent with this Permit and with the current version of the CGP. This ordinance or regulatory mechanism must include sanctions to ensure compliance. [Section 3.4.3]</i>	Annually	Complete, ongoing
<i>FNSB must continue to publish and distribute requirements for construction site operators to implement appropriate erosion and sediment control BMPs and to control waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality. [Section 3.4.4]</i>	Annually	Complete, ongoing
<i>Annually, FNSB must review, and implement procedures for reviewing all site plans as required in Part 3.4.1 for potential water quality impacts, including erosion and sediment control, control of other wastes, and any other impacts that must be examined according to the requirements of the law, ordinance, or other enforceable mechanism of Part 3.4.3. These procedures must include provisions for receipt and consideration of information submitted by the public. [Section 3.4.5]</i>	Annually	Complete, ongoing
<i>Annually, FNSB must review and implement procedures for site inspection and enforcement of control measures established as required in Parts 3.4.3 and 3.4.4, including enforcement escalation procedures for recalcitrant or repeat offenders. FNSB shall inspect all construction activities as required in Part 3.4.1 in its jurisdiction for appropriate erosion, sediment, and waste control at least once per year. [Section 3.4.6]</i>	Annually	Complete, ongoing
<i>FNSB must conduct a biennial training session for the local construction, design, and engineering audiences related to the construction ordinance and BMP requirements referenced in Parts 3.4.3 and 3.4.4. [Section 3.4.7]</i>	Biennially	Complete, ongoing

Compliance Activities

FNSB's efforts to control construction site storm water runoff include codified ordinances, publication of a local BMP design guide, a municipal plan review and site inspection program, and biennial trainings for local

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developers, engineers, and contractors. FNSB annually reviews and updates these program elements for their appropriateness and consistency with permit requirements and the CGP.

Construction Site Storm Water Runoff Control Ordinances

On June 12, 2008 FNSB adopted Ordinance 2008-22 establishing Title 21 of the FNSB Code of Ordinances. FNSB re-codified Title 21 to Title 13 August 2016. Chapter 13.16 addresses construction site storm water runoff control by establishing a permit process for all regulated construction sites. Through this process, FNSB will review storm water management plans and conduct site inspections for each site. Regulated construction sites may not operate prior to issuance of a FNSB permit and must follow appropriate permit closure procedures prior to facility occupancy. The ordinances can be accessed at: <http://fnsb.us/pw/Pages/Storm-Water-Ordinances.aspx>. FNSB will review and revise these ordinances, as necessary, on an annual basis.

BMP Design Guide

FNSB has prepared a BMP Design 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 two-page handout was also created for local developers, engineers, and contractors which covers the different agencies' jurisdictions and plan submittal requirements for storm water within the Fairbanks Urbanized Area. Both the guide and handout are posted on the Fairbanks Storm Water Management Program website at <http://fnsb.us/pw/Pages/SiteRequirements.aspx>. FNSB will review and revise the guide, before the end of the permit term – June 30, 2023.

Plan Reviews & Site Inspections

The site development plan review and inspection program is part of FNSB Planning and Construction Permitting, which directs all contractors/owners to submit storm water plans and applicable review fees in accordance with the requirements of the ordinances before a permit will be issued. The program also appraises contractors/owners that their construction site(s) will be inspected at least once per year for proper erosion and sediments controls. In the event that any person holding a permit pursuant to these ordinances violates the terms of the permit, the FNSB may issue a notice of violation, suspend, or revoke the permit. The FNSB reviewed no construction site plans during the 2019 reporting period. Site plan reviews are required for each regulated construction site and will be conducted upon receipt of a Site Development Permit Application as outlined in Chapter 13.16 of FNSB Code of Ordinances Title 13.

FNSB conducted one site inspection to close out one permit during the 2019 reporting period. Inspection requirements are outlined in Chapter 13.16 of FNSB Code of Ordinances Title 13. Procedures focus on a review of construction access points; soil and slope stabilization; MS4 inlet protection; sediment, flow rate, channel, and outlet controls; pollutant controls; and de-watering practice. The review is primarily to ensure

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that appropriate BMP's have been installed and maintained correctly. Sites are scheduled for inspection based on construction start and end dates and prioritized based on site size and location. Inspections are required once per year with additional follow-up inspections scheduled as necessary to ensure compliance.

No sanctions or enforcement actions were taken during the 2019 reporting period.

Training for Local Developers/Engineers/Contractors

Training for developers, engineers, and contractors was conducted in 2019. This training is scheduled to be offered again in April 2021 to meet the biennial training requirement of the permit. The sign in sheet, advertisement flyer, and slide show for this training is included in Appendix E.

Annually the ADOT&PF, ADEC, and Associated General Contractors of Alaska also host "Alaska Certified Erosion & Sediment Control Lead [AK-CESCL]" trainings in Fairbanks. The training is a two-day course that covers erosion and sedimentation processes, ACGP regulatory requirements, BMPs, site inspections, record-keeping, and cold climate challenges. Janet Smith, Deputy Director, Public Works is certified until May 2020 and Chad Hosier, Storm Water Engineer is certified until February 2020. A summary of all of the AK-CESCL trainings held in Fairbanks during the 2019 reporting period is included in Appendix D.

Staff Responsible for Compliance Activities

The following individuals were responsible for implementing and coordinating the construction site storm water runoff control activities during the 2019 reporting period:

- FNSB – Chad Hosier, Civil Engineer/Storm Water
- FNSB – Janet Smith, Deputy Director, Public Works

Measureable Goals

The following table details the measureable goals set forth in the FNSB's July 2014 and amended January 2019 Storm Water Management Plan, whether or not the goals were achieved during the current reporting period, and lists proposed changes, if any, for the next reporting period.

Measureable Goals	Achieved during current reporting period?	Proposed changes for next reporting period?
Review and revise, as necessary, the Construction Site Storm Water Runoff Control Ordinances by June 30, 2023	Yes	No
Review and revise, as necessary, the Fairbanks North Star Borough Storm Water BMP Design Guide by June 30, 2023	Yes	No
Conduct a training/workshop for local developers, engineers, and contractors in April 2019, 2021, and 2023	Yes	No

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POST-CONSTRUCTION STORM WATER MANAGEMENT

Permit Requirements

To date, FNSB has met all, of the requirements under Minimum Control Measure 5 – Post-construction Storm Water Management. The following table provides a summary of the individual requirements, compliance dates, and status as of December 2019.

Permit Requirements	Compliance Date	Status
<i>FNSB must review and continue the implementation and enforcement of a program to address post-construction storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale that disturb one acre or more, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. [Section 3.5.1]</i>	Annually	Complete, ongoing
<i>FNSB must review the effectiveness and revise ordinances or other regulatory mechanisms to the extent allowable under state or local law to address post-construction runoff from new development and redevelopment projects. FNSB must implement appropriate enforcement procedures and actions, including enforcement escalation procedures for recalcitrant or repeat offenders. [Section 3.5.2]</i>	Annually	Complete
<i>FNSB must review and revise the publishing and distribution of a BMP design manual for post-construction storm water management, which includes a list of strategies reflecting a combination of structural and non-structural BMPs appropriate to the MS4s. [Section 3.5.3]</i>	Annually	Complete, ongoing
<i>FNSB must ensure proper long-term operation and maintenance of post-construction BMPs. [Section 3.5.4]</i>	Annually	Complete, ongoing
<i>FNSB must continue to conduct biennial training for local construction, design, and engineering audiences. [Section 3.5.5]</i>	2019, 2021, 2023	Complete, ongoing
<i>FNSB must incorporate Green Infrastructure Strategies into its education materials and BMP practices. [Section 3.5.6]</i>	Annually	Complete, ongoing
<i>FNSB must inventory locations of all FNSB owned snow disposal sites and map all FNSB, Fairbanks Co-Permittee, and privately owned snow disposal sites that discharge to the MS4 or to receiving waters. [Section 3.5.7]</i>	June 30, 2019	Complete, ongoing
<i>The permittee must evaluate whether to further protect water quality by explicitly regulating the operation of private snow disposal sites within the boundaries of the MS4 through ordinance or other regulatory mechanism. [Section 3.5.7.1]</i>	June 30, 2021	Ongoing

Compliance Activities

FNSB's existing efforts to manage post-construction storm water include codified ordinances; a municipal plan review program for permanent storm water controls for sites disturbing greater than or equal to one acre; publication of a local BMP design guide; biennial training/workshops for local developers, engineers,

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and contractors. FNSB annually reviews and updates these program elements for their appropriateness and consistency with permit requirements.

Post-construction Storm Water Management Ordinances

On July 16, 2009 FNSB adopted Ordinance 2009-27 adding a new chapter to FNSB Code of Ordinances Title 21. The FNSB re-codified Title 21 to Title 13 August 2016. Chapter 13.20 addresses post-construction storm water management by establishing a submittal process for Permanent Storm Water Control Plans (PSWCP) for regulated sites. The FNSB post-construction storm water management policy is regulated in Title 1 by the fine schedule. The ordinances can be accessed at: <http://fnsb.us/pw/Pages/Storm-Water-Ordinances.aspx>. The FNSB will review and revise these ordinances, as necessary, on an annual basis.

Long-term Operation & Maintenance of BMPs – Long term operation and maintenance of permanent storm water controls must be identified in the PSWCP and are ensured through maintenance agreements. These agreements must be executed by the owner of a regulated site, be recorded with the State of Alaska, and be binding upon all subsequent owners of the property. Each maintenance agreement must specify the items listed below.

- The persons responsible for the maintenance of permanent storm water controls.
- That the persons responsible shall maintain permanent storm water controls in accordance with the PSWCP and will correct any deficiencies in the system including repair or replacement of the controls if needed.
- That the FNSB is authorized to enter the property at reasonable times to conduct on-site inspections of the controls.

BMP Design Guide

FNSB updated the Storm Water BMP Design Guide at the end of 2019. 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. The guide is posted on the Fairbanks Storm Water Management Program website at <http://fnsb.us/pw/Pages/SiteRequirements.aspx>. FNSB will review and revise the guide, as necessary, on an annual basis.

Design Criteria & Performance Goals – The design criteria and performance goals for post-construction (permanent) BMPs are outlined in Section 4.3 of the guide. For runoff volume, post-construction peak runoff is required to be limited to 5% over pre-construction peak runoff using the 10-year, 1-hour duration storm event. For runoff quality, the initial 1/2-inch of runoff must be treated, and after this first flush, treatment must be provided at a minimum rate of 0.005 inches per minute. These design criteria and performance goals were developed by City of Fairbanks and FNSB engineers in close coordination with ADEC and in

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consideration of Fairbanks’s rainfall intensity data and design standards used by the Municipality of Anchorage.

Training for Local Developers/Engineers/Contractors

The Cities of Fairbanks and North Pole, FNSB, and ADEC jointly conduct a three-hour storm water training biennially to educate developers, engineers, and contractors about the local construction site storm water runoff and post-construction storm water management requirements within the Fairbanks Urbanized Area. This training was completed in April 2019 and is scheduled to be offered again in April 2021 to meet the biennial training requirement of the permit.

Annually the ADOT&PF, ADEC, and Associated General Contractors of Alaska also host “Alaska Certified Erosion & Sediment Control Lead [AK-CESCL]” trainings in Fairbanks. The training consists of either a two-day course or a one day refresher class that covers erosion and sedimentation processes, ACGP regulatory requirements, BMPs, site inspections, record-keeping, and cold climate challenges. Janet Smith, Deputy Director, Public Works is certified until May 2020 and Chad Hosier, Storm Water Engineer is certified until February 2020. A summary of all of the AK-CESCL trainings held in Fairbanks during the 2019 reporting period is included in Appendix D.

Green Infrastructure Strategies

The FNSB supports in the Fairbanks Area Green Infrastructure group that developed the Green Infrastructure Resource Guide for Fairbanks, AK. This guide is available on the Fairbanks Storm Water Management Program website which is hosted by FNSB. Selected Green Infrastructure will be evaluated and incorporated into the updated *BMP Guide*. FNSB has been implementing Green Strategies for several years in its projects. Many Borough facilities utilize dry wells to dispose of roof runoff. The Borough Solid Waste Facility employs infiltration planters, bioswales, dry wells, and detention basins to manage storm water. FNSB projects will continue to be evaluated for implementing these types of BMP’s.

Snow Disposal Sites

In 2018, FNSB began development of an inventory and GIS map of public and known commercial snow disposal locations within the Fairbanks Urbanized Area. The Fairbanks co-permittees developed an application that includes a database schema designed to collect attributes about each site. The dataset is designed to easily collect updated information about sites in the future. FNSB added two new snow disposal sites in 2019 to the inventory map after sending a mailer out to contractors with information on snow storage. FNSB will review and update annually, as appropriate.

Staff Responsible for Compliance Activities

The following individuals were responsible for implementing and coordinating the post-construction storm water management activities during the 2019 reporting period:

- FNSB – Chad Hosier, Civil Engineer/Storm Water
- FNSB – Janet Smith, Deputy Director, Public Works

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Measureable Goals

The following table details the measureable goals set forth in the FNSB's July 2014 and amended December 2019 Storm Water Management Plan, whether or not the goals were achieved during the current reporting period, and lists proposed changes, if any, for the next reporting period.

Measureable Goals	Achieved during current reporting period?	Proposed changes for next reporting period?
Review and revise, as necessary, the Post-construction Storm Water Management Ordinances annually	Yes	No
Review and revise, as necessary, the Storm Water BMP Design Guide by annually	Yes	No
Conduct a training/workshop for local developers, engineers, and contractors to include Green Infrastructure strategies in April 2019, 2021, and 2023	Yes	No
Distribute Green Strategies and Low Impact Development Strategies information annually	Yes	No
Create evaluation report to determine if additional regulation of snow disposal sites is wanted by July 1, 2020.	No	No
Inventory and mapping of snow disposal sites	Yes	No

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POLLUTION PREVENTION & GOOD HOUSEKEEPING

Permit Requirements

To date, FNSB has met all the requirements under Minimum Control Measure 6 – Pollution Prevention & Good Housekeeping. The following table provides a summary of the individual requirements, compliance dates, and status as of December 2019.

Permit Requirements	Compliance Date	Status
<i>FNSB must continue to maintain and implement an operation and maintenance program intended to prevent or reduce pollutant runoff from municipal activities.</i> [Section 3.6.1]	Annually	Complete, ongoing
<i>Annually, FNSB must continue appropriate training for municipal personnel related to optimum maintenance practices for the protection of water quality.</i> [Section 3.6.2]	Annually	Complete, ongoing
<i>FNSBs must continue to ensure 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.</i> [Section 3.6.3]	Annually	Complete, ongoing

Compliance Activities

Operation & Maintenance Program

FNSB has 105 Road Service Areas. Each area was established through an election process by area specific residents to provide road powers to FNSB for area specific roads. The FNSB Rural Services Division supports and provides training to the Road Service Area Commissioners, who were granted road maintenance responsibilities through the aforementioned election process. Fifty-one of these service areas are located within the Fairbanks Urbanized Area. The storm water conveyance systems within these 51 service areas make up the FNSB MS4. The MS4 is maintained by various Road Service Area contractors. The FNSB Rural Services Division has developed a set of standard specifications for maintenance. The specifications include standards for replacing or repairing damaged culverts, furnishing and placing ditch lining material, cleaning and restoring the capacity of the ditches, cleaning culverts and catch basins, thawing frozen culverts and catch basins, and snow removal. Each Road Service Area is responsible for maintenance schedules and inspection of controls.

In addition, appropriate controls for reducing the discharge of pollutants are addressed on a per-department or division basis. A table that identifies specific controls being utilized is included in Appendix E.

Industrial Facilities – The FNSB does not own or operate any industrial facilities that discharge to the MS4.

Annual Employee Training

As stated previously, FNSB conducts annual employee trainings rotating two storm water training DVD kits from Excal Visual. One training is titled “Storm Water Pollution Prevention for MS4 Operations” and includes a 30-minute employee training DVD, training acknowledgement forms, pocket guides, and quizzes covering

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the topics of good housekeeping and spill prevention/control/response, vehicle and equipment fueling/maintenance/washing, waste and materials management, facility maintenance, parking lot and street sweeping, storm drain cleaning, landscaping and grounds maintenance, and working over or near surface waters. A second training is titled “Illicit Discharge Detection & Elimination for MS4 Employees” and similarly includes a 15-minute employee training DVD and amenities covering the topics of spotting illicit discharges at their source and outfalls, as well as the employees’ role in illicit discharge detection and elimination. FNSB distributes the DVDs to the public works, maintenance, solid waste, and parks and rec departments annually, for viewing. Training acknowledgement forms for the 2019 reporting year are included in Appendix E.

Flood Management Projects

Flood management projects generally result in dredge or fill in wetlands and other water bodies, 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 water bodies, 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 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, USFWS, 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.

Staff Responsible for Compliance Activities

The following individuals were responsible for implementing and coordinating the pollution prevention and good housekeeping activities during the 2019 reporting period:

- FNSB – Chad Hosier, Civil Engineer/Storm Water
- FNSB – Janet Smith, Deputy Director, Public Works

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Measureable Goals

The following table details the measureable goals set forth in the FNSB's July 2014 and amended December 2019 Storm Water Management Plan, whether or not the goals were achieved during the current reporting period, and lists proposed changes, if any, for the next reporting period.

Measureable Goals	Achieved during current reporting period?	Proposed changes for next reporting period?
Continue current operation and maintenance efforts intended to prevent and reduce pollutant runoff from state and municipal activities for the duration of the permit term	Yes	No
Annually provide employee training on storm water pollution prevention for MS4 operations	Yes	No

OUTFALL MONITORING

Outfall Monitoring

The FNSB has not had the need to conduct water quality monitoring. If there becomes a need for FNSB to conduct water quality monitoring, the Fairbanks permittees and the FNSB updated the Quality Assurance Project Plan (QAPP) in December 2019 to meet the requirements of the permit. A copy of the QAPP is included in Appendix F.

EVALUATION OF PROGRAM EFFECTIVENESS

Evaluation of Program Effectiveness

Each year the FNSB is required to evaluate the program's effectiveness and address any needed improvements/modifications. Overall, it is the opinion of the FNSB that the program has been very effective in reducing the discharge of pollutants from the MS4 through implementation of the compliance activities under each minimum control measure. This is evidenced by the water quality data collected by the Fairbanks permittees and ADEC since the original permit was issued in 2005. Over time the data has shown improvement in water quality in both the Chena River and Chena Slough – the two primary water bodies in Fairbanks and North Pole to which the MS4 discharges. Both were previously listed as impaired by petroleum products and sediment from urban runoff, and in 2010 the ADEC determined both water bodies met state water quality standards for petroleum products. In December 2013 the ADEC announced the Chena River was also meeting state water quality standards for sediment. As of 2019 the Chena River has been removed from the state's impaired waters list.

