



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Environmental
Conservation

DIVISION of Water
Anchorage

555 Cordova Street
Anchorage Alaska 99501
Main: 907.269.6285
Fax: 907.334.2415
www.dec.alaska.gov

December 30, 2021

Wolfgang Junge
AK DOT&PF
PO Box 196900
Anchorage, AK 99519-6900

SUBJECT: APDES Inspection of the Seward Highway MP 75-90 Ingram Creek to Girdwood_2,
authorization number AKR10GM40

Dear Mr. Junge:

Per the Alaska Pollutant Discharge Elimination System, an inspection of the Seward Highway MP 75-90 Ingram Creek to Girdwood_2 Project was conducted on November 29, 2021. We would like to provide you with a copy of the inspection report for your records. Thank you for your cooperation and assistance regarding this inspection and for your efforts in protecting human health and the environment.

Sincerely,

A handwritten signature in blue ink that reads "Shane Serrano".

Shane Serrano, Compliance Officer
Credential No. R-0310

Enclosure: AKR10GM40 2021 Inspection Report

CC: Joshua James, DOT
DEC.Water.APDESData@alaska.gov
Alex Shahrokhi, DEC
Katrina Chambon, DEC
Jon Wendel, DEC



APDES INSPECTION REPORT

Alaska Department of Environmental Conservation
 Division of Water
 555 Cordova Street, Anchorage, AK 99501

Section 1: General Data

Authorization Number	Announced / Unannounced	Receiving Waters	Inspection Date
Number: AKR10GM38 AKR10GM40	Announced	Placer, Placer Overflow & Twentymile Rivers, Portage, Portage #, & Explorer Creeks, Turnagain Arm & Unnamed ponds, lakes creeks and wetlands	Date: 11/29/2021
Effective: 6/8/2021 6/8/2021			Entry Time: 12:30pm
Expiration: 1/31/2026 1/31/2026			Exit Time: 3:30pm

Section 2: Facility Data

Name of Facility: Seward Highway MP 75-90 Ingram Creek to Girdwood Rd Phase II, Mass Excavation, Inc. (MX)

On-Site Representative/Physical Address:

Name: Andy Davidson
 Title: Site Superintendent, Mass Excavation
 Address: 6591 A ST STE 300
 Anchorage, AK, 99518-1866
 Phone: (907) 354-0255
 Email: andyd@Massexcavation.com

Responsible Party/Mailing Address:

Name: Mark Erickson
 Title: Vice President, Mass Excavation
 Address: 6591 A ST STE 300
 Anchorage, AK, 99518-1866
 Phone: (907) 227-2899
 Email: marke@Massexcavation.com

Name of Facility: Seward Highway MP 75-90 Ingram Creek to Girdwood_2, DOT & PF

On-Site Representative/Physical Address:

Name: Cody Butcher
 Title: Project Engineer, DOT&PF/DOWL
 Address: PO BOX 196900
 Anchorage, AK 99515-6900
 Phone: (907) 269-0770
 Email: cbutcher@dowl.com

Responsible Party/Mailing Address:

Name: Wolfgang Junge
 Title: Regional Director, DOT&PF
 Address: PO Box 196900
 Anchorage, AK 99519-6900
 Phone: (907) 269-0770
 Email: wolfgang.junge@alaska.gov

Additional Inspection Participants:

Joshua James, DOT
 Cody Butcher, DOWL/DOT
 Charlie Benti, DOT
 Dan Lindblom, MX
 Andy Davidson, MX

For internal use only:

*Off-Site Compliance Evaluation : Yes No
 NAICS: 237310*

Section 3: Findings

Background/Regulatory Status/Compliance History

The Department of Transportation and Public Facilities (DOT&PF) and Mass Excavation, Inc. (MX) are dual permitted respectively as owner and operator on the Seward Highway milepost (MP) 75-90 Ingram Creek to Girdwood Project. In 2021 the project is authorized to discharge storm water per the Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit, authorization numbers AKR10GM38 and AKR10GM40, under the recently reissued permit.

The purpose of this project is to enhance safety and drivability with passing lanes, as well as improve drainage on the Seward Highway near Portage. The scope of work is to realign and resurface the highway between MP 75 and 90, build several new bridges, and realign the highway through the Portage Intersection, create passing lanes, grade the highway,, drainage improvements, illumination, guardrails, signage, and striping. Drainage improvements include replacing and upsizing piping, installing fish passage culverts, and installing thaw wire in culverts.

This is the first inspection by the Department of Environmental Conservation (DEC). The inspection covers the effective dates of the authorizations (6/8/2020 – MX, 6/8/2021 – DOT) to the date of the inspection on 11/29/2021.

The compliance monitoring review and a review of Environmental Compliance History Online and Integrated Compliance Information System has shown that this facility is not in significant noncompliance for the period of this evaluation.

Field Inspection

Upon arrival at the Seward Highway MP 75-90 Project, introductions were exchanged, and inspector credentials were presented.

The following information was provided verbally by onsite representatives:

- The project is located near Portage, AK in between the Mileposts 75 and 90. The project includes approximately 88.5 acres of land to be disturbed.
- Construction began in June of 2021, construction continues through the winter of 2021-2022, and is scheduled to be completed on October 31, 2023.
- The project is currently in its middle stages of pile driving for new bridge construction with temporary best management practices (BMP), soil stabilization, materials staging and stream diversions.
- MX is responsible for maintaining the BMPs.
- MX is responsible for performing the Storm Water Pollution Prevention (SWPPP) inspections in coordination with the DOT Project Manager Cody Butcher.
- Cody Butcher is currently performing the inspections, as the DOT contracted project inspector.
- Andy Davidson and Cody Butcher both signing the inspections.
- There are multiple discharge points draining to more than 10 waterbodies and wetlands but none of the waterbodies are impaired or require monitoring.
- Drainage improvements include installing thaw wire, upsizing pipes, and stabilizing stream channels.
- There have not been any reportable spills on-site for the entirety of the project.
- Storm water BMPs installed on-site include silt fencing, rip rap, fiber rolls, coir logs, vegetative buffers, seeding, and mulching.
- Permanent storm water BMPs to be left on-site include rip rap and coir logs around culverts, topsoil, and seeding.
- The project will not go into winter shutdown in 2021.

- In preparation for winter, vegetative mat was put down, coir logs were installed at culverts, hydroseeding was performed, and bonded fiber matrix was used around stockpile and discharge locations.
- Construction will be active during breakup season, with staff on-site performing inspections and replacing BMPs as needed.
- Equipment fueling is performed on-site using both a mobile fuel truck and several stationary tanks.
- Fueling locations are staged away from waterbodies.
- There is no equipment washing performed on-site.
- All construction debris and trash are collected and taken off-site.
- There is no stabilized entrance / exit, but most of the site is paved and sweeping has been performed to prevent track out.
- Equipment was staged nearby at the main offices yard.
- There are no pesticides used on-site.
- The DEC contaminated sites database does not have a listing of a contaminated site within the project area.
- During dewatering, water was pumped through a sediment bag with a filter and was diverted to land.
- There are no treatment chemicals used on-site.

The following observations were made by DEC inspectors:

- BMPs on-site were in good condition.
- The site was clean and free of debris.
- The SWPPP and Notice of Intent (NOI) are posted with signage at both ends of the project.
- Paperwork was organized and easily accessible.

Sampling	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
-----------------	------------	--------------------------	-----------	-------------------------------------

No sampling was conducted at the time of the inspection.

Records Review

The following records were reviewed as part of the inspection and are considered complete:

Unless stated otherwise the documents were on-site for both DOT and MX.

- Notice of Intent (signed and certified)
- Delegation of Signature Authority forms
- DEC Authorization Letters
- Construction General Permit
- Storm Water Pollution Prevention Plan (SWPPP) (signed and dated)
- SWPPP certification page
- SWPPP subcontractor certifications
- SWPPP pre-construction site visit documentation
- SWPPP Amendment Log
- Corrective Action Log
- Grading and Stabilization Logs
- Site maps
- Employee training records
- AK-CESCL Certifications
- Daily Record of Rainfall Log

- Inspection Reports
- Non-compliance Notifications during excessive rainfall events

Closing Conference

The following participants were present during the closing conference:

- Cody Butcher, DOWL/DOT
- Charlie Benti, DOT
- Dan Lindblom, MX
- Andy Davidson, MX
- Joshua James, DOT

Upon completion of inspection of the project, a closing conference was held. The DEC inspector provided the facility with preliminary inspection findings and discussed follow-up procedures.

Violations

No violations were identified during this evaluation period.

Section 5: Appendixes

1. Photo Addendum

Signature

Inspector – Shane Serrano
Credential Number R-0310

E-mail: Shane.Serrano@alaska.gov

Reviewed By – Katrina Chambon
Credential Number: R-0187

Phone: (907)269-7550

E-mail: katrina.chambon@alaska.gov



Date: 12/30/2021



Date: 12/30/2021

Photo Addendum

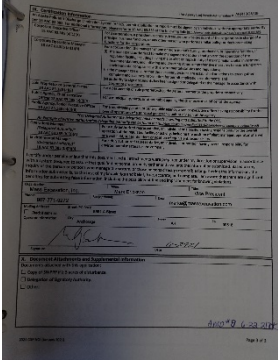
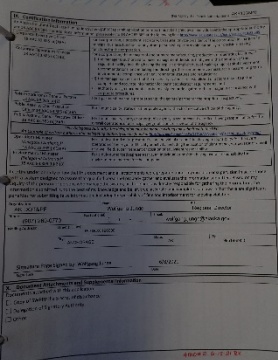
Photo 01	Photo 02
	
NOI – MX (signed)	NOI – DOT (signed)

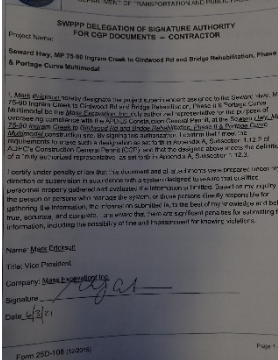
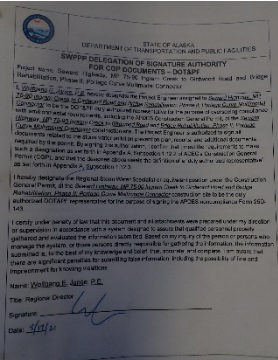
Photo 03	Photo 04
	
Delegation of Signature Authority Form - MX	Delegation of Signature Authority Form - DOT

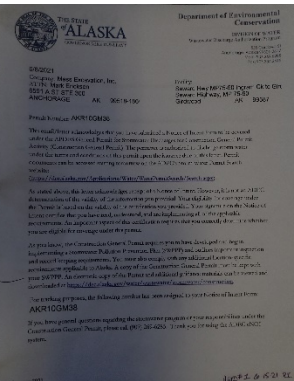
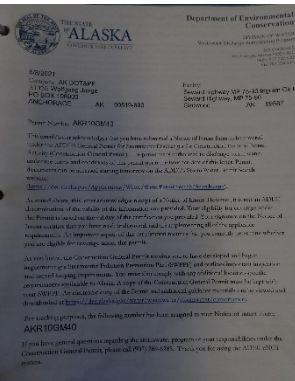
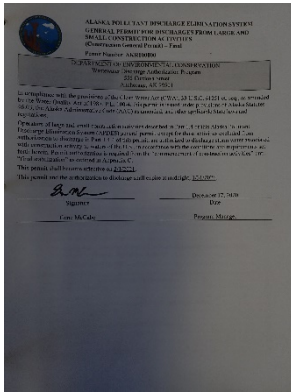
Photo 05	Photo 06
	
DEC Authorization Letter - MX	DEC Authorization Letter - DOT

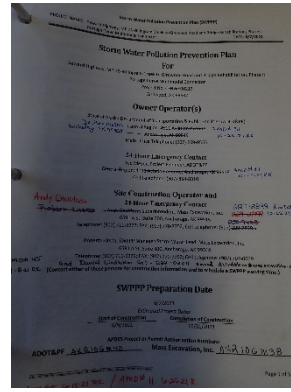
Photo Addendum

Photo 07



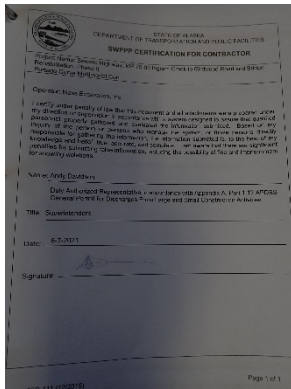
Copy of Construction General Permit (CGP)

Photo 08



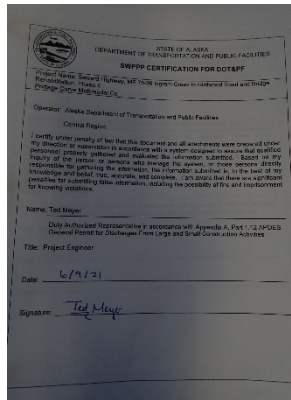
Storm Water Pollution Prevention Plan (SWPPP)

Photo 09



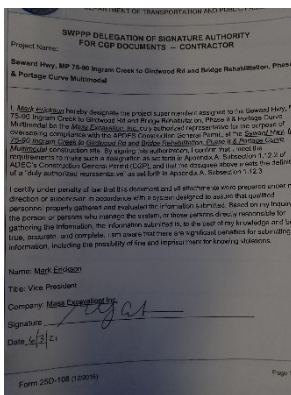
SWPPP certification - MX

Photo 10



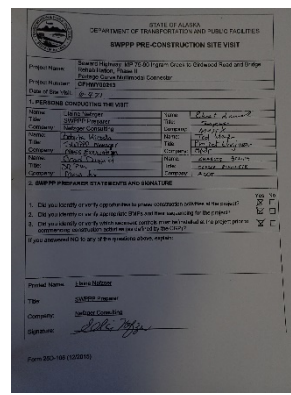
SWPPP certification - DOT

Photo 11



SWPPP subcontractor delegation

Photo 12



SWPPP pre-construction site visit documentation

Photo Addendum

Photo 13

Amendment Number	Description of the Amendment	Date of Amendment	Amendment Authorized by (Print Full Name)	PK Number
37	ADD SWPPP AMENDMENT 37	10-20-21	[Signature]	TH
38	ADD SWPPP AMENDMENT 38	10-20-21	[Signature]	TH
39	ADD SWPPP AMENDMENT 39	10-20-21	[Signature]	TH
40	ADD SWPPP AMENDMENT 40	10-20-21	[Signature]	TH
41	ADD SWPPP AMENDMENT 41	10-20-21	[Signature]	TH
42	ADD SWPPP AMENDMENT 42	10-20-21	[Signature]	TH
43	ADD SWPPP AMENDMENT 43	10-20-21	[Signature]	TH
44	ADD SWPPP AMENDMENT 44	10-20-21	[Signature]	TH
45	ADD SWPPP AMENDMENT 45	10-20-21	[Signature]	TH
46	ADD SWPPP AMENDMENT 46	10-20-21	[Signature]	TH
47	ADD SWPPP AMENDMENT 47	10-20-21	[Signature]	TH
48	ADD SWPPP AMENDMENT 48	10-20-21	[Signature]	TH

SWPPP Amendment Log

Photo 14

Action Number	Date	Description of Corrective Action	Completed By	Date Completed	Name of Person Documenting Completion
23	10-14-21	...	[Signature]	10-14-21	[Signature]
24	10-14-21	...	[Signature]	10-14-21	[Signature]
25	10-14-21	...	[Signature]	10-14-21	[Signature]
26	10-14-21	...	[Signature]	10-14-21	[Signature]
27	11-1-21	...	[Signature]	11-1-21	[Signature]
28	11-2-21	...	[Signature]	11-2-21	[Signature]
29	11-2-21	...	[Signature]	11-2-21	[Signature]
30	11-2-21	...	[Signature]	11-2-21	[Signature]
31	11-2-21	...	[Signature]	11-2-21	[Signature]

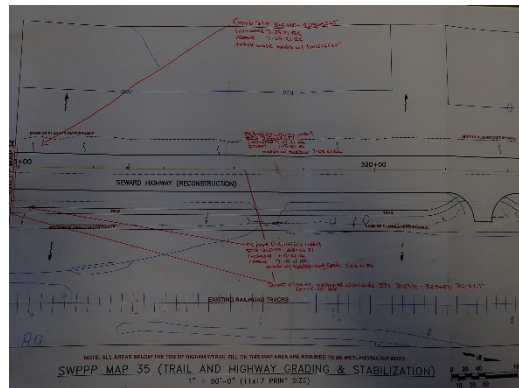
Corrective Action Log

Photo 15

Date	Activity	Description of Grading Activity	Date of Stabilization Measure	Description of Stabilization Measure
7-23-21	Grading	Grading with backhoe loader	7-23-21	Truck work
7-24-21	Grading	Grading with backhoe loader	7-24-21	Truck work
8-2-21	Grading	Grading with backhoe loader	8-2-21	Truck work
8-9-21	Grading	Grading with backhoe loader	8-9-21	Truck work

Grading and Stabilization Log

Photo 16



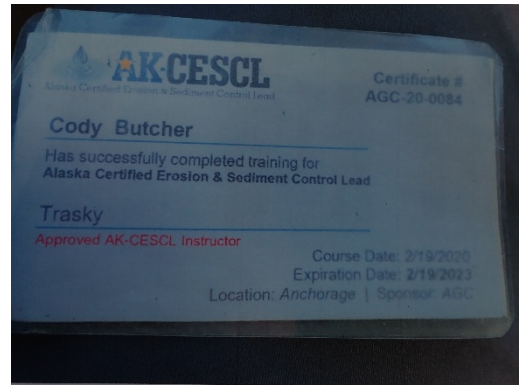
Site Map example

Photo 17

Position	Name	Start Date	End Date
Project Engineer	Tim Meyer	6-3-2021	1-28-2022
Storm Water Inspector	Steven Smith	6-3-2021	1-28-2022
Superintendent	Andy Davidson	6-3-2021	1-28-2022
SWPPP Manager	Rebecca Walsh	6-3-2021	1-28-2022
Supervisor	Cody Butcher	6-3-2021	1-28-2022
Superintendent	Robert Lennarz	6-3-2021	1-28-2022
SWPPP Manager	Andy Davidson	6-3-2021	1-28-2022
SWPPP Manager	Donald Lamborn	11-8-21	1-28-2022

Project staff tracking form

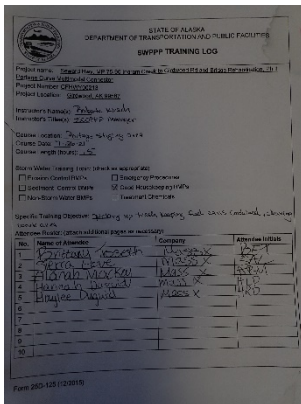
Photo 18



AK-CESCL Certificate

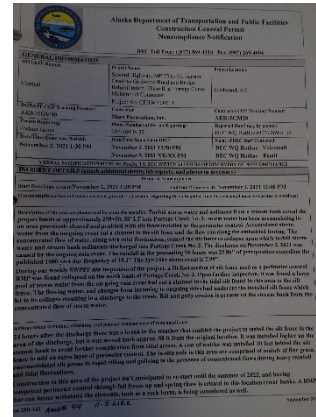
Photo Addendum

Photo 19



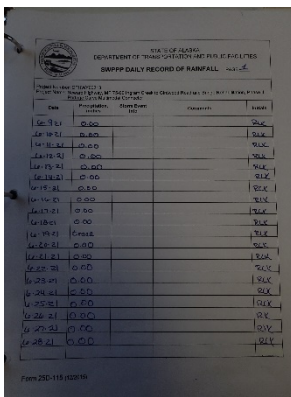
Employee Training Log

Photo 20



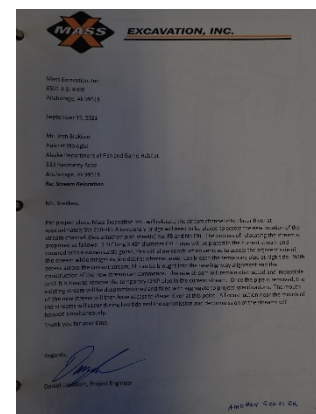
Non-compliance Notification

Photo 21



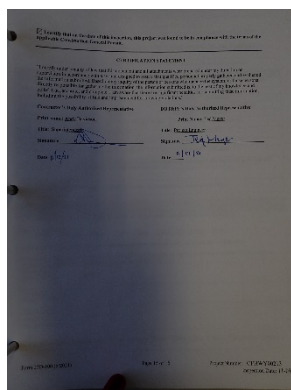
Daily Record of Rainfall Log

Photo 22



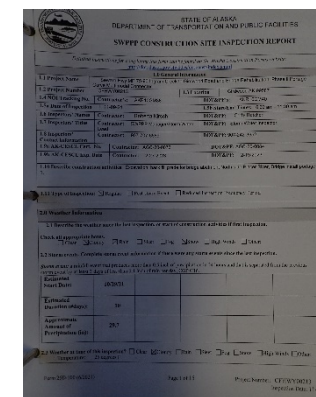
ADFG Stream relocation request documentation

Photo 23



Inspection Report certification statement

Photo 24



Inspection Report (signed)













Photo Addendum	
<p>Photo 25</p> 	<p>Photo 26</p> 
<p>Equipment storage area</p>	<p>On site connex storage & equipment</p>
<p>Photo 27</p> 	<p>Photo 28</p> 
<p>On site fuel storage</p>	<p>Porta Potty near temporary office</p>
<p>Photo 29</p> 	<p>Photo 30</p> 
<p>Erosion control material storage</p>	<p>Mobile fueling truck for contractor</p>

Photo Addendum	
Photo 31	Photo 32
	
Bridge building material storage	Soil storage stockpiles
Photo 33	Photo 34
	
Pile driving and bridge building activities	Bridge decking storage area
Photo 35	Photo 36
	
Indoor pile welding building	Crane raising activities



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Environmental
Conservation

DIVISION of Water
Anchorage

555 Cordova Street
Anchorage, AK 99501
Main: 907.269.6285
Fax: 907.334.2415
www.dec.alaska.gov

12/8/2021

Kristi Bischofberger
Municipality of Anchorage
PO Box 196650
Anchorage, AK 99519

Wolfgang Junge
Alaska Department of Transportation and Public Facilities
PO Box 196900
Anchorage, AK 99519

SUBJECT: Inspection the Municipality of Anchorage and the Alaska Department of Transportation and Public Facilities Alaska Pollutant Discharge Elimination System ,Anchorage Municipal Separate Storm Sewer System Individual Permit AKS052558

Dear Ms. Bischofberger and Mr. Junge:

Per the Alaska Pollutant Discharge Elimination System, an inspection of Municipal Separate Storm Sewer System Individual Permit AKS052558 was conducted on October 6, 7, 12, 13, and 27, 2021. We would like to provide you with a copy of the inspection report for your records. Thank you for your cooperation and assistance regarding this inspection and for your efforts in protecting human health and the environment.

Sincerely,

A handwritten signature in black ink that reads "Katrina Chambon".

Katrina Chambon, EPS IV
Credential No. R-0187

on the 8th day of December 2021

Enclosure: Inspection Report
cc:
DEC.Water.APDESData@alaska.gov
Jon Wendel, DEC



APDES INSPECTION REPORT

Alaska Department of Environmental Conservation
 Division of Water
 555 Cordova Street, Anchorage, AK 99501

Section 1: General Data

Permit Number	Announced / Unannounced	Receiving Waters	Inspection Dates/Times
Number: AKS052558 Effective: 10/1/2020 Expiration: 7/31/2025	Announced	U.S. Waters located within the corporate boundary of the MOA	10/6/2021 - 1030 -1645 10/7/2021 - 0900-1530 10/12/2021 - 0930 -1030 & 1500 -1530 10/13/2021 - 1300 – 1330 10/27/2021 - 1400 - 1500

Section 2: Facility Data

Name of Facility: Municipality of Anchorage & State DOT MS4

On-Site Representative/Physical Address:

Name: Kristi Bischofberger
 Organization: Municipality of Anchorage (MOA)
 Title: Watershed Manager
 Address: PO Box 196650
 Phone: 907-343-8058
 Email: bischofbergerkl@muni.org

Responsible Party/Mailing Address:

Name: Kristi Bischofberger
 Organization: Municipality of Anchorage (MOA)
 Title: Watershed Manager
 Address: PO Box 196650
 Phone: 907-343-8058
 Email: bischofbergerkl@muni.org

Name: Wolfgang Junge
 Organization: Alaska Department of Transportation and Public Facilities (DOT)
 Title: Division Director
 Address: PO Box 196900
 Phone: 907-269-0770
 Email: wolfgang.junge@alaska.gov

Additional Inspection Participants:

MOA - Mark Littlefield, Gaylon VanLandingham, James Belz, Eric Hodgson, Kyle Kelley, Gregory Soule, Kyle Cunningham, Jeffery Urbanus, Paul Lacsina, Charles Weed, Steve Ellis, Rae De Ley, & Ernest Stoltenberg

DOT&PF - Kurt Koehler, Kevin Jackson, Joshua James, Ronald Searcy, Jake Ciufu, Renee Goentzel, & Vernon Vreeland

AWC - Cherie Northon

DEC - Katrina Chambon, Monica Boyer, & Elizabeth Stergiou

For internal use only:

Off-Site Compliance Evaluation: Yes No
 NAICS: NA

Section 3: Findings

Background/Regulatory Status/Compliance History

The Municipality of Anchorage (MOA) and the Alaska Department of Transportation and Public Facilities (DOT) are authorized to discharge storm water (SW) from the municipal separate storm sewer system (MS4) per the Alaska Pollutant Discharge Elimination System (APDES) Anchorage Municipal Separate Storm Sewer System individual permit AKS052558.

The MOA and DOT are considered co-permittees under this MS4 permit. The MS4s owned and operated by the permittees are located within the corporate boundary of the MOA. Surface runoff within the MOA is directed to a network of subsurface conveyances, ditches, and surface streets. These systems provide drainage for an area of approximately 1,955 square miles, which includes the areas under the direct jurisdiction of the MOA, as well as the smaller communities of Eagle River, Girdwood, Chugiak, and Eklutna.

This is the fifth inspection by the Department of Environmental Conservation (DEC). The last inspection was conducted between September 30, 2019 and October 3, 2019 and resulted in violations related to MOA's construction inspection checklist and construction site inspection reports which were both repeat violations from the 2017 inspection and a violation for storm drain system maintenance.

This compliance evaluation covers two issuances of individual permit AKS052558. The superseded individual permit was effective on August 1, 2017 and expired on July 31, 2020. The current individual permit became effective on August 1, 2020. This inspection covers the October 4, 2019 through October 7, 2021. The inspection included an interview portion that was conducted via Microsoft TEAMS and in-person field inspections.

The compliance monitoring review and a review of Environmental Compliance History Online (ECHO) and Integrated Compliance Information System (ICIS) ECHO/ICIS has shown that this facility is not in significant noncompliance for the period of this evaluation.

Field Inspection

Introductions were exchanged and inspector credentials were presented upon commencing the interview portion of the inspection via Microsoft Teams and upon arrival at the sites chosen for onsite inspection. The following information was provided verbally to the Department by onsite representatives and from a review of records and documents.

Storm Water Management Program (participants: Kristi Bischofberger, Jeff Urbanus, Katrina Chambon, Jeff, Elizabeth Stergiou)

- Construction SW complaints are handled under the construction site program via inspections and prohibited discharges are handled as illicit discharges.
- In 2020 the MOA responded to 13 SW construction complaints, 11 prohibited discharges from private property, and 4 prohibited discharges in the ROW.
- MOA has been tracking and licensing animal control facilities and began inspecting these facilities in 2019. MOA also updated Title 21 regarding land use requirements for animal facilities.
- MOA identified the Campbell Creek Watershed as the next watershed project in the 2019 annual report (AR) and the 2020 the AR stated the scoping document for Campbell Creek was completed. The permittee submitted a document to DEC on 6/23/2021 that states "Salmon in the City" project in the Campbell Creek Watershed will be implemented. At the time of the interview the project has not been started but reconnaissance is planned for fall of 2022. MOA intends to plan and implement the project in-house without the assistance of Anchorage Waterway Council (AWC).
- The next watershed project, due at the end of this permit term, has not been selected.

Construction Site Runoff Control Program (participants Kristi Bischofberger, Jeff Urbanus, Kevin Jackson, Ron Searcy, Joshua James, Katrina Chambon, Elizabeth Stergiou)

- MOA stated all ordinances are up to date.
- The Anchorage Stormwater Manual, also called the Design Criteria Manual (DCM), requires permittees to meet the requirements of the APDES construction general permit (CGP), no changes were needed to the DCM when the APDES CGP was reissued in 2021.
- MOA plan review and approval process for construction site operators.
 - Technical reviews of SW treatment plans are conducted by the private development section for private projects and for public projects there is an internal review with comments from Watershed Management staff.
 - There is one primary reviewer and two back up reviewers
 - Permittees apply using a software system that triggers routing to the proper MOA section.
 - There were hundreds of plans reviewed this year among the different sections.
 - There were five minor complaints in 2021 from the complaint hotline which were corrected quickly. No stop work orders were issued in 2021.
- MOA Inspections.
 - MOA's inspection program is combined for construction site runoff control and SW management for areas of new development and redevelopment.
 - MOA is using the new inspection form that resulted from past notice of violations (NOVs). In the past one of the inspectors accidentally used the old form, but all inspectors are now working exclusively on new form.
 - Sites are inspected at the time a project is finished, once occupancy is granted, the site is turned over to the watershed group for periodic inspections.
 - MOA initially had challenges getting the regulated community involved and scheduling inspections, but the process is working better now.
 - If a construction site is installing underground infiltration, then two inspections are required; one when the trench is open to confirm correct installation and a final inspection when the site is stabilized.
 - MOA has one inspector for all plan reviews and construction inspections. The workload has been manageable. MOA puts a note in the electronic file once plan is reviewed which prompts inspections.
 - In 2021 there were two inspectors in the watershed group that conducted 467 construction inspections.
 - The common issues found include:
 - No construction entrance.
 - Best management practices (BMP)
 - The inspector coordinates with the permittee to get the issue resolved and usually gives the permittee between an hour to 24 hours to resolve. If not resolved, then MOA issues a stop work order.
 - Permittees avoid stop work orders because of the significant increase of the cost that may be tens-of-thousands of dollars per day.
 - All projects were authorized under the APDES Construction General Permit for projects equal to and greater than one acre.
- DOT Inspections
 - DOT updated their SW inspection forms and policies to match the reissued APDES CGP.

- Specification 641, a new specification, has been approved and addresses developing a storm water pollution prevention plan (SWPPP) for contractors to follow and defines the relationship between DOT and the contractor.
- It took over four months to get the new specification approved by the Federal Aviation Administration (FAA) and Federal Highway Administration (FHWA).
- FAA and FHWA have final say on the specification because so much funding comes from FHWA and FAA.
- Specifications are revised every two years.
- Other documents revised to align with the reissued APDES CGP include:
 - The Alaska construction manual, including the reference guide on how to administer a construction contract,
 - Alaska SWPPP Guide,
 - The erosion and sediment control template for the erosion and sediment control plan,
 - SWPPP review checklists and template now use ADEC SWPPP template with additional items specific to DOT,
 - Site inspection report form and other related forms and letters,
 - Spill report form for sediment and petroleum, and
 - CESCL course.
- Training:
 - DOT taught eight Certified Erosion and Sedimentation Control Lead (CESCL) classes that trained 187 people in 2021. The extra classes made up for last year's lack of classes due to COVID-19. All classes were online and included staff from other agencies, including Alaska Department of Natural Resources (DNR), DEC, MOA, and Army Corps of Engineers (ACOE). DOT is trying to make it easy for people to attend.
 - Spring Fling was conducted online four hours a day over four days for construction, utilities, operation and maintenance (O&M), and contractors. DOT's part was an hour long.
- DOT plan review and approval process for construction site operators.
 - After a contract is awarded, the chosen contractor develops the SWPPP. The initial SWPPP is reviewed by the DOT project engineer, then reviewed by DOT's review contractor, Stantec, using DOT specifications. Stantec provides the contractor a list of items to bring the SWPPP in compliance with the specifications. After the contractor modifies the SWPPP, the DOT project engineer reviews and approves the SWPPP.
 - All SWPPP changes and documents are uploaded to Stantec for review with the project timeline.
 - EDocs is used to store and share all project documents.
 - DOT and the contractor both submit an APDES notice of intent (NOI) after the SWPPP is developed. The contractor is not allowed to disturb the ground until DOT issues the notice to proceed (NTP), which DOT is not allowed to issue until DEC issues the APDES authorization for that project. It is a way to ensure the contractor has the NOI before they disturb ground. Another control mechanism is that the NTP can only be signed by one of three construction chiefs.
- DOT Inspections
 - DOT has not been conducting onsite document reviews as part of an inspection due to COVID-19.
 - DOT does visit projects a couple of times a summer.
 - DOT typically has 40 projects a summer.

- Currently DOT is trying to visit all projects for winter shutdown. They may have to visit some remote sites virtually, which is not ideal, but they can visit all road-based jobs.
- Stantec has been contracted for quality assurance reviews since 2011. DOT still reviews and signs inspection reports. The 2021 training for Stantec reviewers still needs to be completed. Training is documented in the A.
- Technical reviews of SW treatment plans are conducted by DOT project staff.
- It is difficult to provide exact numbers of inspectors and inspections per year.
- Each project has project engineer and SWPPP inspector assigned and some projects share inspectors.
- There have been 85 inspections to date for 2021. It is a low number because of the late season start. Some projects submitted NOI forms but had not started, others were short term projects, and some were waiting for final stabilization.
- The most common issue found during inspections is that projects had trouble getting vegetative growth. They would stabilize with mulch and seed but it was hard to get final stabilization. Sometimes applying EK1 (compost tea) and increased watering was successful.
- Stantec is catching issues early during SWPPP review. The inspectors are getting trained by responsive feedback on inspection reports by Stantec.
- DOT started a pilot program for digital inspections using SWPPPTrack on two projects, one is related to earthquake repair and the second is along the Old Glenn Highway.
 - A tablet is used to document and add BMPs, set up email notifications for corrective actions and discharges, and can auto generate inspection reports.
 - DOT is planning on expanding the pilot project.

Storm Water Management for Areas of New Development and Redevelopment Kristi Bischofberger, Paul Lacsina, Joshua James, Katrina Chambon, Elizabeth Stergiou, and Monica Boyer)

- MOA completed the Anchorage Storm Water DCM in 2016 as required in the previous permit. The design manual was revised in 2018 to include a requirement that development projects greater than 10,000 square feet (ft²) are required to implement green infrastructure (GI) and low impact development (LID).
- Permittees continue to establish the program for new development and redevelopment.
- MOA and DOT have different processes for incorporating GI and LID for public and private projects.

MOA

- MOA requirements and criteria are outlined in the DCM for public projects (streets), subdivisions (private), and commercial. Large commercial development is handled through the MOA Private Development Group.
- Public development projects have been limited due to lack of legislative grants since 2015, therefore there has not been much opportunity for GI and LID. Large projects are reviewed at various stages and include LID/GI opportunities.
- The Sullivan Arena Project was designed to include a bioswale. Significant groundwater flow was found during excavation and it was determined that the high velocity of the groundwater would compromise stability; therefore, an oil and grit separator (OGS) was installed.
- Larger projects have not incorporated GI due to the design phase being conducted years before funding and project development. GI/LID should be included in the early design phase.
- Private projects are classified as subdivisions projects and commercial projects that are greater than 10,000 ft².

- Commercial projects are evaluated for impervious surfaces and infiltration possibilities such as vegetative swales, vegetative coverage, and retention basins. As of now, 90% commercial permits incorporate GI.
- Subdivision reviews are based on area of disturbance. Projects are evaluated for infiltration, collection chambers, retention of vegetation on sloped areas, long vegetative outfalls with energy dissipation, and getting variances to replace curb and gutters with vegetative ditches to limit run off. GI is required and peak flows are limited to less than 5%.
- O&M agreements.
 - Required for all new and redevelopment projects over 10,000 ft².
 - Each agreement must be signed and recorded at the recorder's office.
 - There are approximately 130 O&M agreements in effect.
 - MOA showed DEC an example O&M agreement to DEC.
 - O&M agreements are not required for repaving where the same drainage is maintained.
- Training. MOA reviewers participate in an annual meeting and participate in different training on the national level.
- Inspections.
 - MOA has an inspection program that encompasses both Storm Water Management for Areas of New Development and Redevelopment and Construction Site Runoff Control Program as described in the Construction Site Runoff Control Program above.
 - In 2021 there were nine follow up inspections of permanent SW management controls with O&M agreements.
 - MOA typically inspects 9-12 sites annually based on the SW threat assessment.
 - Sites that are five acres or larger and near surface water are inspected annually, otherwise they are inspected every 3 years.
- MOA: CARRS Parking Lot on Dimond and Jewel Lake Deicing
 - CARRS had integrity issue with the parking lot due to groundwater cause the asphalt to erode. The original repair was done prior to the LID requirement, but this year's repair was warranty work, not a reconfiguration of drainage. The permittee submitted a variance request, so LID was not required and traditional water controls were installed.
 - MOA required some revisions due to listing deicers and the O&M had to be revised.

DOT

- DOT does not have authority over private sector and only manages DOT projects.
- DOT has made GI and LID implementation a standard for most projects in MOA.
- All projects go through at least two plan reviews, sometimes three: local 30-50% design, then plans in hand 65% design, lastly, plan specification and estimated 95% design. Every review stage includes review for compliance with design criteria, which is contained in both the MOA DCM and the DOT design manual.
- There are a few large-scale projects like the Seward Highway, otherwise most projects within MOA are "shave and pave" road projects that are limited in scope and budget.
- LID was included in the DeLong Lake rehabilitation project by using a cross culvert under the lake to retain SW prior to discharging to the lake.
- O'Malley Road was recently upgraded from the Seward Highway to Livingston Street with the inclusion of infiltration basins, and bioswales. Phase 2 will start utility locates this year and construction

starting next year. An infiltration basin will be constructed near the golf course. The project is expected to be completed in 2024.

- DOT is developing a new snow dump near the O'Malley snow dump that should include GI vegetative berms to help control moisture.

Industrial and Commercial Storm Water Discharge Management (participants: Kristi Bischofberger, Jeff Urbanus, Renée Goentzel, Katrina Chambon, Elizabeth Stergiou)

- The permittees continue to retrofit public snow storage sites and provide an updated inventory and map location of public and private storage sites.
- Facilities specifically listed in Permit Part 3.3.1 are mapped in the required years, not annually. Permittees go through all files and identify the facilities that meet those criteria and map them.
- Permittees communicate with DEC if they find any facilities that should be subject to the Multi-Sector General Permit (MSGP).
- MOA and DOT have not had any sector specific issues to focus on this term.

MOA

- This term's focus is on animal facilities.
 - A large domestic facility is one with four or more horses.
 - MOA code requires large domestic animal facilities to have a waste management plan.
 - MOA reviews the plans to ensure they have adequate storage space for manure, adequate separation distances from water & groundwater, and discourage storm water interaction with waste management areas, among many other items.
 - These facilities are inspected during the application process by MOA Land Use and Watershed Management in a joint inspection.
 - Due to the program, facilities have had to adjust their waste management practices and/or move manure storage to reduce impact
 - There was one new application for large domestic animal facility, an equestrian facility, that submitted a new waste management plan.
 - MOA reached out to UAF Cooperative Extension and some national resources in developing the program.
- Last term MOA acknowledged that grains used at breweries are a potential emerging industry with pollutants that may cause water quality issues.
- MOA received a couple of complaints regarding breweries & distilleries which were addressed with performance standards.
 - Breweries were storing spent grain outdoors. Grains that come into contact with SW has the potential to increase the biochemical oxygen demand that may impact water quality.
 - MOA conducted several inspections and provided education.
 - Breweries recycle spent grain, so MOA provided education in regard to BMPs to help reduce SW drainage and/or to keep stored grains from coming into contact with SW.
 - An example of MOA compliance assistance was how they worked with King Street Brewery to design a retrofit for a grain dispensing system that was exposed to SW to help reduce impact to the drainage system.

- Chemical Inventory of Private Companies

- The reissued permit requires a map of facilities and the usage of de-icing and anti-icing chemicals. Currently the MOA is assuming the chemical usage is mostly calcium chloride. Using deicer is good for safety but may not be good for water quality.
- The MOA is looking at sites greater than two acre and sent letters.
- The letters to stores are not being observed and an adjustment in procedure will be necessary. MOA talked with Fred Meyer, who indicated they would rather deal with fallout from salt in the parking lot and damage to infrastructure rather than people falling in their lot.
- BMPs can be used to reduce the amount of deicer used.

DOT

- DOT is required to have SWPPPs for snow and O&M facilities.
- DOT is using the MSGP template.
- DOT has five SWPPPs:
 - Highland snow dump
 - O'Malley snow dump
 - Anchorage O&M
 - Birchwood O&M
 - Girdwood O&M.
 - SWPPPs located at the Anchorage highway maintenance station.
 - Annual MS4 training is held for staff at those facilities.

Storm Water Infrastructure and Street Management (participants: Kristi Bischofberger, Jeff Urbanus, Renée Goentzel, Burrell Nickeson, Vernon Vreeland, Jim Belz, Katrina Chambon, Monica Boyers, Elizabeth Stergiou)

- MOA maintains most of the storm sewer maintenance records and the mapping system.
 - MOA has a record of DOT streets and catch basins, but does not have the minor maps that includes DOT street sweeping etc. DOT has their own sweep plan.
 - DOT has guidance maps for less obvious pathways but doesn't have maps for all of their streets.
 - The frequency of DOT street sweeping is a schedule in the maintenance contract.
- MOA's catch basin and inlet cleaning and inspection program
 - All catch basins and oil and grit/grease separators (OGS) are inspected annually.
 - Every third year the annual inspection includes manholes.
 - Data on catch basin fill rates were collected annually to determine required frequency of cleaning.
 - MOA cleans one quarter of the 10,000 basins a year. Cleaning crews are directed by the mapping system.
 - Smithsons is contracted to clean 1500-2000 catch basins per season. All waste is brought to the Northwood facility as required by contract.
 - MOA cleans 272 OSGs every year.
 - Catch basin, OGS, and manhole cleaning disposal.
 - Water off the top goes to Anchorage Water & Wastewater Utility (AWWU) grit pit at 95th Avenue & King Street which is tied to the sewer system.
 - The sludge is transported to the Northwood facility's settling system. Currently the water from the sludge flows into the MS4 system, but MOA has tied the system to the sanitary sewer. The wastewater will no longer flow into the MS4 once approvals are granted.

- Sludge is dried at the Northwood facility and transported to Anchorage Regional Landfill (ARL) to be used as cover material. MOA plans to send the solids at the Northwood facility during the inspection to ARL in the next week.
 - If an OGS is opened and there is evidence of oil or other illicit discharge, then NRC is notified for cleanup. MOA hasn't needed NRC to clean out an OGS in about five years.
 - These inspections led to finding previously unknown earthquake damage such as the bottom falling out of a catch basin, so MOA was able to repair the catch basin.
 - Chugiak-Birchwood-Eagle River Rural Road Service Area (CBERRRSA) brings cleanout material from catch basins, OGS, and manholes to their facility on Highland Road. Water is treated by infiltration and solids are hauled to ARL. Catch basins and drains are cleaned in August and allowed to dry prior to transport to ARL.
 - All maintenance for CBERRRSA is contracted to Northern Mechanical.
 - Maintenance for Girdwood Rural Road Service Area (GRRSA) is contracted to Smith & Sons which transport the waste to MOA's Northwood facility.
- DOT's catch basin and drain inspection and maintenance schedule
 - DOT collected data to see if they could maintain catch basins and drains on a rotating schedule, but it was determined that there were not enough sections for a rotation schedule to work.
 - Catch basins and drains are inspected every year and cleaned on as needed basis. A contractor, Jolt, conducts the inspections documented with geotag photos and cleans the catch basins and drains as needed.
 - DOT primarily verifies inspections through the geotag photos but will spot check the inspections occasionally.
 - The contractor saves dump tickets for water taken to AWWU.
 - DOT stated the contractor has a facility by Big Lake used to settle out the solids and stated that the facility has an approval from DEC.
 - The contractor saves dump tickets for the solids transported to the dump in Wasilla.
 - DOT had a different contractor, Alaska Stormwater, in 2020 who had their own facility on site. That contractor would take their material, about 6000-6500 cubic yards annually, to the dump.
 - DOT doesn't collect or track waste disposal information from contractors.
 - DOT expects contractors to dispose of waste in accordance with DEC requirements.
 - DOT has identified a location near Martin Luther King Drive and Tudor Road, behind the sand storage building, to build a facility to process catch basin and inlet cleaning waste for proper disposal. The design will be similar to MOA's facility. The site already has a settlement pond. It is not known if water will flow to AWWU.
 - Neither MOA or DOT uses an incinerator or belt press for dewatering sludge.
 - The street maintenance standard operating procedure for storm water controls is current. It is updated annually as needed. It was last updated around 2017.
 - MOA implemented their street sweeping management plan a couple of years ago. The plan was resubmitted for this permit term and is consistent with the plan for the last permit term. The plan is being used in each service area.
 - DOT implemented their street sweeping management plan in the AR. The plan is working well.

Illicit Discharge Management (participants: Kristi Bischofberger, Jeff Urbanus, Renée Goentzel, Kyle Cunningham, Katrina Chambon, Elizabeth Stergiou)

- MOA Ordinance 2107040, Section G, prohibits pollution, including to the MS4.
- The illicit discharge map is updated at least annually before the AR. The map is currently updated through April 2021 and will be completely updated before the AR due date.
- Recurring illicit discharges and complaints are investigated by MOA within two days. If substantiated, MOA checks the storm drain outfall to verify it has not entered a creek or outfall location and then decides what actions to take: clean up or education.
- In 2020 the MOA discovered two illicit discharges and both connections were disconnected.
- No enforcement actions beyond inspection reports or letters have been taken in 2020-2021.
 - There was one contractor doing cement work in a garage that allowed runoff to go into the storm drain. The RP hired a contractor to pump out the storm drain. MOA did not find evidence that the runoff made it to the creek near Cliffside and 20th.
 - Bird Creek Garage. MOA Watershed Management would have the ability to enforce upon the landowner. Since some of the discharged septic was on state property, the state may have taken action.
 - The Webb's Towing illicit discharge case was resolved. It was determined that it was not an illicit discharge. There was a discharge pipe from the vehicle washout building that discharged to a ditch the leads to the MS4. After working with MOA and DEC Webb's Towing decided to get a holding tank and transfer it to AWWU.

Public Education and Involvement (participants: Kristi Bischofberger, Cherie Northon, Katrina Chambon, Elizabeth Stergiou)

- MOA works with the AWC for public education and involvement.
- AWC conducted a follow up public awareness survey in 2020.
 - This was the third survey; the previous surveys were in 2010 and 2014. People are perceiving water quality more accurately, making the connection that runoff affects creek health, and recognizing that resident's actions contribute to water quality.
 - There was more notice of homeless activity and human waste on creek banks. This may be due to education and/or due to an increase in trail use.
 - People using the trails are affected by and reporting on trash and litter. Questions in the survey regarding trash were the same as 2010 and 2014, therefore AWC didn't see that recent education efforts affected perception of trash. The amount of visible homeless camps with a lot of trash is thought to have been the most significant factor in raising awareness.
 - Education efforts increased awareness that yard chemicals contribute to decrease in water quality.
 - There were several comments showing a recognition of bank trampling and the need for revegetation & buffers in creeks.
 - AWC is sensitive to being able to track survey result from year to year. The next survey will need to be slightly adjusted. The terminology question could be adjusted to be more useful, possibly by asking people to match words to definitions.
- Outreach program
 - The website was updated over the past year with the addition of a contact/comment area.
 - The concerns and comments are getting more nuisance, commentors are understanding that there may be pollutants in runoff and that runoff will impact the creek.

- Commentors are concerned about bank trampling, areas not vegetated, and sediment run off into creeks. People are identifying the value of vegetation along creeks.
 - Awareness and concern are increasing. As an example, commentors provide concerns about a private snow disposal site and asked if MOA could ask the owner to install a rain garden or other mechanism to prevent oil contaminated runoff from impacting the downstream creek.
- The education effort has been moving away from rack cards in businesses to videos on the website and social media. A typical example is the poop video which is one minute long.
- AWC participates in any event that has a watershed or pet component. They book a table at events like garden shows and farmers markets to make information and pet waste bags available. AWC lost a lot of outreach opportunities due to COVID-19, such as migratory bird day, which was a big opportunity.
- Outreach tracking is primarily done by maintaining a newsletter list and tracking how many students attend classroom outreach events.
- Annual creek cleanup
 - The same volunteers participate in the annual creek cleanup from year to year and notice changes.
 - 2020 autumn clean up included more trash around Chester Creek near the Sullivan Arena.
 - Spring 2021 teams noticed less trash.
 - 2021 autumn clean up focused near Sullivan Arena because users of the homeless shelter at Sullivan Arena must leave the facility during the day. Trash found and cleaned up were consistent with previous years.
 - Ms. Northon has conducted clean ups for 37 years and has not heard any complaints in the past ten years that there wasn't enough to clean up.
 - Volunteers noticed a decrease in trash along Campbell Creek during the May 2021 creek clean up event. Volunteers have noticed the decrease since the Sullivan Arena homeless shelter opened.
- Pet waste
 - AWC developed an improved pet waste bag that was used by a few people but didn't catch on. They are now working to develop a bag that the pet carries.
 - AWC is still hearing many complaints about used pet waste bags discarded along trails.
 - AWC talked with MOA Parks & Recreation about adding more trash cans along trails but there are issues with MOA accessing and servicing additional trash cans.
- Dangerous discarded items
 - The amount of drug related needles found during creek cleanup events was less in 2021 than 2020.
 - AWC received complaints about needles and cylindrical pot containers in parks. MOA Parks & Recreation may better be able to address these items because it only affects certain parks.
 - Social media may be the only way to get the message out about the presence of needles and pot containers on the trails.
 - AWC directs creek clean up volunteers to avoid picking up trash from homeless camps and dangerous discarded items such as needles.
 - MOA has implemented a program that pays crews to pick up trash from homeless camps.
- Screening and sampling
 - AWC has conducted screening for 23 years and continues to work with citizen scientists to monitor for fecal coliform, turbidity, and other basic parameters at eight sites.

- AWC is working on sampling the Black Sabbath outfall by Sullivan Arena and the Seward Highway.
- AWC is assessing a proposed project to find the source of a petroleum smell that has been occurring for a few years. They worked with DEC Division of Spill Prevention and Response (SPAR) to ensure there were no known sources upstream. SPAR thought the source was from the 2019 earthquake.
- The storm drain was replaced a few years ago and flows out to a rock fall to the creek.
- AWC has collected samples that indicate petroleum contamination.
- AWC is collecting samples for 6PPD-quinone, a chemical used in vehicle tires.
 - Results have been positive at the outfalls to the creek.
 - 6PPD quinone has been detected in lethal amounts at the outfall but once it hits the creeks it is non-detect.
 - Current studies indicate that 6PPD-quinone may affect salmon.

Monitoring, Evaluation, Reporting, and Record Keeping Requirements (participants: Kristi Bischofberger, Jeff Urbanus, Katrina Chambon, Elizabeth Stergiou)

- The monitoring program consist of pesticide screening, dry weather screening, control measure effectiveness, snow storage site retrofits, SW outfalls, and GI and LID.
- MOA's biggest SW challenge is making sense of the fecal coliform results. It is hard to determine the cause for the seasonal variation and limit fecal coliform sources.
 - Fecal coliform results are better in dry weather than in wet weather.
 - MOA has been working on the pet waste issue for decades and now is seeing additional impact from the homeless population.
 - MOA measures success by how much water is treated with a BMP rather than reduction in fecal coliform during sampling events.
 - It has been helpful to look at the trends within monitoring data, which is possible with twenty years of data from the same outfalls.
- Scoop the poop and GI are useful tactics to manage pollutants such as fecal coliform.
- Disconnecting a pollutant at the source is the best tactic to manage all pollutants.
- The monitoring and evaluation plan was updated in 2021 coinciding with the new permit.
 - Much of the dry weather flows are thought to be groundwater that infiltrates into the system.
 - Rather than chase groundwater monitoring, screening was changed to focus on looking for evidence of illicit discharges on the ground and in outfalls and looking upstream for potential pollutant sources.
- The Quality Assurance Project Plan (QAPP) was updated for this permit term.
- Pesticide screening will be conducted next year as planned.

Snow Dump Sites (participants: Kristi Bischofberger, Jeff Urbanus, Renee Goentzel, Katrina Chambon, Elizabeth Stergiou)

- MOA has eight snow dump sites.
 - Sites are inspected quarterly or after large storm events by contractor PTS Engineering.
 - PTS Engineering advises MOA if there are issues with the BMPs.
 - A key baffle is being installed at the Sitka Street snow dump.
- DOT has three snow dump sites.
 - There have been no changes to BMPs.

- The Highland Road snow dump waste flows through a settlement pond, wattles, boom, and into an upland vegetation zone.
- The O'Malley snow dump has two outfalls that connect to the MS4. Both outlets have wattles, low rock lined areas, and sediment cages around a beehive. The system is working well with annual maintenance to clean litter, muck out sediment, and replace wattles.
- The main change in response to the new permit is that DOT implemented snowmelt visual inspections.

Onsite Inspections

King Street Brewery Spent Grain Storage (participants: Kyle Cunningham, Katrina Chambon, Elizabeth Stergiou)

- MOA visited site in response to a complaint that grain was entering the SW system.
- MOA advised one of the co-owners of King Street Brewing, Shane Kilgore, of the complaint.
- At the time of the complaint King Street Brewing stored spent grain outside in a covered area next to a storm drain with a slotted cover that allowed the grain to enter the SW system.
- The brewery wanted to minimize and/or eliminate the exposure while keeping spent grain accessible to the public so they could reuse it.
- The brewery proposed to MOA a system using a curtain to contain the grain coming out of the facility pipe into a supersack that was placed in a plastic containment which was placed on secondary containment. In addition, it was agreed the storm drain was not needed, so the slotted storm drain cover was replaced with a solid cover. MOA approved the design.
- The valve for grain distribution is well inside the secondary containment.
- No grain was observed around the system. The site was clean and well managed.
- A grain bag was used as the curtain.
- The plastic container that contains the supersack being filled has volume markings on the outside.
- Spent grain bags are stored in plastic supersacks over secondary containment. Some grain bags are stored outside of the covered area, but within secondary containment.
- MOA has been contacting breweries to suggest best practices.
- DEC thanked the brewery for being proactive and resolving the issue voluntarily and thanked MOA for its due diligence and compliance assistance.

Northwood Pre-Treatment Facility (participants: Jim Belz, Ernie Stoltenberg, Katrina Chambon, Elizabeth Stergiou)

- The facility treats SW waste from MOA catch basin and drain cleaning operations.
- The sludge had been dried at the sludge drying bed and transported to the ARL to be used as cover material.
- The facility had recently removed the plugs from the settling cells to allow water to drain so they can clean out the remaining sediment and trash in preparation for winter shut down.
- Trash is removed during the season by hand using a pool cleaning net and at the end of the season by excavator.
- The Northwood pre-treatment facility is no longer discharging to Connors Bog. They now discharge to AWWU. The system is flexible, and they can discharge to Connors Bog if needed.
- Ecoblocks are used in the final settling pond to keep water in the pond longer to allow additional solids to settle out.
- One vacuum truck was offloading during the inspection.

- Typically, there is a water source where the vacuum trucks empty their load so they can wash out their tanks where the wash water flows into the first settling cell. Facility staff secured that water source due to last week's freezing temperatures and provided a source for tank washing closer to the sewer manhole because the water was less likely to freeze.
- The system is effective as evident by the progressively improved water clarity.
- The outfall into Connors Bog was in a heavily vegetative area. The outfall entrance was well maintained with rocks that are cleaned out annually and a gater guard in place to prevent sediment migration.
- There are three magnesium chloride tanks onsite. Magnesium chloride is used for dust control. All three tanks were damaged in the 2018 earthquake and product was released. The tanks now are weighted down to prevent movement during an earthquake.
- The Northwood snow dump still contains snow from last season. Trash was visible. The ground is still too soft to access to remove trash. There are three other MOA snow dumps that have not fully melted.
- On site records were well organized.
- Mr. Belz showed inspectors the memo's that PTS (contractor) sends Mr. Belz when they find BMPs or catch basins/drains that need maintenance.
- PTS conducts inspections and the inspection forms are signed by Mr. Belz.
- The SWPPP and permit were onsite.

Alaska Stormwater Maintenance Facility (participants: Kristi Bischofberger, Kyle Cunningham, Katrina Chambon, & Elizabeth Stergiou)

- Accompanied MOA on a site visit to investigate an illicit discharge complaint.
- New three to four feet wide breach in the berm along the edge of the property near right of way and the drainage ditch. The ground just downstream of the breach was soft and spongy with minor sedimentation, indicating that an amount of water was recently released.
- The rock lined drain from the property to the right of way at the edge of the property did not appear that water was released along it recently.
- No drainage from the property to the ditch was observed.
- No impacts to water in the ditch were observed.
- The right of way and drainage area was heavily vegetated
- MOA planned to contact the property owner and offer compliance assistance

Fish Creek Bridges LID project (participants: Josh James, Katrina Chambon, Elizabeth Stergiou)

- DOT replaced four bridges along the Fish Creek Trail.
- Stream banks under each of the bridges were expected to get significant foot and pet traffic and were difficult to stabilize.
- Alaska Department of Fish & Game did not allow use of rocks to stabilize the stream bank.
- The stream banks were shaded so seeding was not completely successful.
- Fiber rolls were seeded and left in place to keep the stream bank stabilized.
- Evidence of human and pet traffic was present under each bridge.
- The area under one bridge had been used as a shelter.
- Rock abutments looked stable and effective.
- Area was built up to improve drainage and reduce erosion.
- The stream bank at the bridge at Red Bridge Park was eroding on the cut bank.

Highland Rd. Snow Storage and Disposal Site (HRSS) (participants: Renee Goentzel, Monica Boyer, Katrina Chambon)

- The acreage of the HRSS is 2.73 acres.
- In addition to snow storage, the permittees practice vegetative management, make drainage repairs, and conduct general site maintenance.
- No salt, fuel or contaminants are stored at the HRSS.
- There have been no permanent structures constructed at the HRSS.
- No vehicles or equipment are permanently stored at the HRSS. Any vehicle maintenance is conducted off-site.
- A lined sediment trap/pond with wattle check dams and rock armoring is maintained to settle out pollutants, filter runoff, and dissipate velocity before runoff leaves Outfall A.
- The comprehensive annual inspection is conducted between August and November each year.
- The entrance/exit to the site is gated, to discourage public use of the site.
- No sediment track-out was observed at either entrance/exit.
- Gravel berms and vegetative barriers, lining the entrance/exits and surrounding the snow dump area, were maintained. No evidence of washout or channeling to the ditches or wetlands outside the berms.
- The snow dump area was well groomed and gently sloped towards outfall A, located at the southern end of the site.
- To protect Outfall A from vehicles, jersey barriers and safety markers were in place around the sediment trap area.
- Rock armoring protects the sediment trap area. No oils or debris was observed in the area.
- Riprap, continuing from under the sediment trap area to the outlet, was in place and maintained.
- Wattles were installed at both sides of the outfall. The wattles were in good condition.
- No discharge was observed at the time of the inspection as no snow was stored on site.
- A marker placed at the edge of the property could be seen from the outfall. The discharge location is approximately 100 feet from the property line.
- The overall appearance of the site was well maintained and good housekeeping measures were followed.
- The soils appear to drain well therefore no ponding or pooling was observed on site.

The following additional observations were made by DEC inspectors:

- MOA and DOT pumped out the septic system at the Bird Garage that was discharging sewage into the storm drain which drains into Cook Inlet.
SW manhole 26 located within the Port of Alaska in Anchorage needs repair. It is in an area of contaminated soil and groundwater which will need to be managed during the repairs and substantially increases the cost of those repairs. There are two responsible parties (RP) contributing to the contamination around Manhole 26, one has agreed to assist in managing the contaminated soil and groundwater, but the other has not. MOA is continuing to work towards a solution to repair the manhole.

	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
--	------------	--------------------------	-----------	-------------------------------------

No samples were collected

Records Review

The following records were reviewed as part of the inspection and are considered complete:

- A copy of the MS4 permit was available at <http://anchoragewatershed.com/APDES.html>
- The Storm Water Management Program (SWMP) was updated on February 15, 2021

- ARs for 2019 and 2020 were submitted by February 15th each year and appropriately signed.
- ARs and associated documents are available online at <http://anchoragewatershed.com/APDES.html>
- SWPPPs for Highland snow dump, O'Malley snow dump, Northwood facility, Birchwood O&M, and Girdwood.
- The updated interjurisdictional agreement was submitted in the 9-month submittal.
- Program Coordination Plan was submitted in the 9-month submittal.
- DOT and MOA's Enforcement Response Policy.
- DOT construction NOIs, notice of terminations, and inspection reports.
- Annual street sweeping reports and maps were submitted with the 2019 and 2020 Ars.
- 2019, 2020, and 2021 routine facility inspections for all sites.
- 2019 and 2020, comprehensive annual inspections of permittee owned facilities completed by MOA and DOT.
- QAPP.
- Spill Prevention, Control, and Countermeasure Plans (SPCC)
- Storm Water Outfall Monitoring - a map demonstration was provided during the inspection.
- Education and training for construction storm water management, storm water infrastructure, and illicit discharge response for both DOT and MOA.
- Dowling Road / Seward Highway Interchange Reconstruction Hydraulic & Hydrologic Report dated April 13, 2020 as an example of using green infrastructure.
- Construction Erosion and Sediment Control Inspection Reports for 5800 Juneau Street dated August 21, 2021 and September 13, 2021. Form 82-010 Ver. 11_19.
- DOT 2021 NCN tracking and discharge reports
- DOT AK-CESCL and Spring Fling training material

Closing Conference

The following participants were present during the closing conference:

- Kristi Bischofberger
- Jeff Urbanus
- Katrina Chambon
- Elizabeth Stergiou

A closing conference was held upon completion of the inspection. The DEC inspectors provided the facility with preliminary inspection findings. The inspector described deficiencies found, identified areas of concern, and discussed follow-up procedures.

- DOT&PF does not track where the catch basin and storm drain clean out liquids and sludge are taken for disposal. DEC is concerned that the contractor may not be disposing of this material properly.
- Field staff recommended DEC inspect projects and sites throughout the inspection year and requested the interview portion of the inspection be held after winter shut down.
- MOA advised DEC they do not have different inspections of permanent SW management controls and construction inspections. They are combined into one inspection program. DEC plans to combine the interview portion of the inspection for these two sections to improve inspection efficiency.
- DEC advised permittees that monitoring data will need to be submitted via NetDMR.
- DEC observed MOA respond to a complaint. The response was timely, and the approach discussed to provide compliance assistance was thoughtful and appropriate.

- DEC thanked:
 - MOA and DOT&PF for compliance assistance with Birdhouse Garage septic issue. Effort was tremendous and appreciated by DEC,
 - MOA for compliance assistance with breweries,
 - Ms. Bischofberger for coordinating the inspection, and
 - MOA and DOT&PF for their time and efforts towards this inspection.

Section 4: Compliance

Violations

None identified during the inspection review time period.

Areas of Concern

- Website <http://anchoragewatershed.com/documents.html> link to DEC NOI Portal and <http://anchoragewatershed.com/construction.html> link to DEC’s Storm Water Program were not working on October 4, 2021. It is recommended all links in MOAs webpages related to this permit are verified and updated as needed.
- Recommend DOT track where contractors dispose of material cleaned out of catch basins and storm drains to ensure contractors are properly disposing of the material.

Section 5: Appendixes

1. Photo Addendum

Signature

Inspector – Katrina Chambon

Phone: (907) 269-7550

E-mail: katrina.chambon@alaska.gov

Reviewed By – Alexander Shahrokhi

Credential Number: R-0331

Phone: (907) 451-2172

E-mail: alexander.shahrokhi@alaska.gov



Date: 12/8/2021



Date: 12/7/2021

Photo Addendum	
Photo 01	Photo 02
	
Northwood Dr. MOA Maintenance Facility	Sediment Basin Located at Maintenance Facility

Photo 03	Photo 04
	
Sediment from Catch Basins and OGSs	Last Treatment Baffle

Photo 05	Photo 06
	
Load-off Location	Drying Area for Sludge







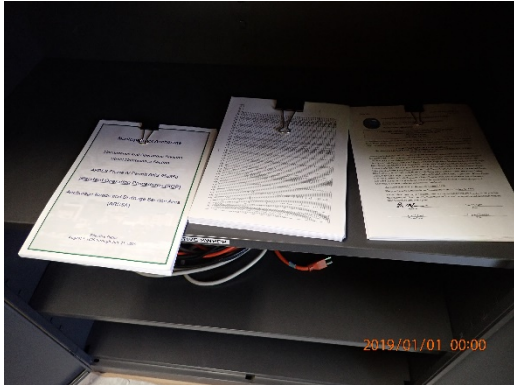
Photo Addendum	
<p>Photo 07</p>  <p>2019/01/01 00:00</p>	<p>Photo 08</p>  <p>2019/01/01 00:00</p>
<p>Piping that is now Connected to Anchorage WWTF</p>	<p>Spill Kit</p>
<p>Photo 09</p>  <p>2019/01/01 00:00</p>	<p>Photo 10</p>  <p>2019/01/01 00:00</p>
<p>Outfall Location</p>	<p>Discharge Pipe</p>
<p>Photo 11</p>  <p>2019/01/01 00:00</p>	<p>Photo 12</p>  <p>2019/01/01 00:00</p>
<p>Deicing Chemical Storage Tanks</p>	<p>Sheen</p>

Photo Addendum

Photo 13



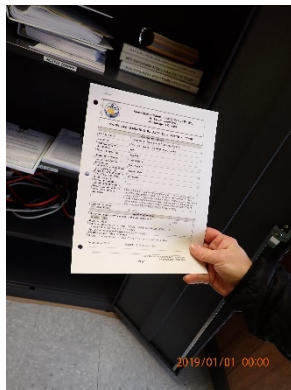
MOA Northwood Maintenance Facility SOPs

Photo 14



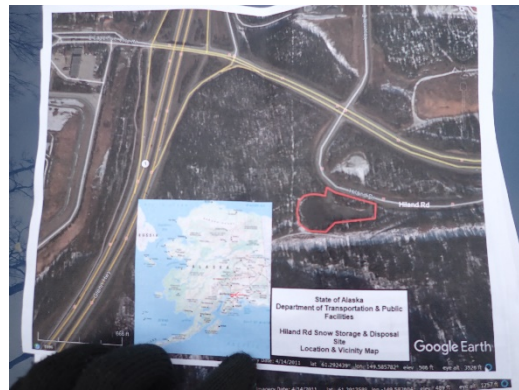
SWPPP Binders

Photo 15



MOA Northwood Maintenance Facility Routine Facility Inspections

Photo 16



Eagle River snow dump, general map

Photo 17



Eagle River snow dump, vegetative berm. Facing south

Photo 18



Eagle River snow dump, vegetative berm. Facing north

Photo Addendum	
<p>Photo 19</p> 	<p>Photo 20</p> 
<p>Eagle River snow dump, vegetative berm. Facing east</p>	<p>Eagle River snow dump, concrete barriers to outfall</p>
<p>Photo 21</p> 	<p>Photo 22</p> 
<p>Eagle River snow dump, large cobbles and straw waddles near outfall</p>	<p>Eagle River snow dump, marked outfall</p>
<p>Photo 23</p> 	<p>Photo 24</p> 
<p>Eagle River snow dump, at outfall. Facing west</p>	<p>Fish Creek</p>







Photo Addendum	
<p>Photo 25</p>  <p>Fish Creek rock abutments</p>	<p>Photo 26</p>  <p>Fish Creek, straw wattles under bridge</p>
<p>Photo 27</p>  <p>Fish Creek fabric along edges to reduce sediment</p>	<p>Photo 28</p>  <p>Fish Creek vegetative buffers under bridge</p>
<p>Photo 29</p>  <p>Fish Creek, no evidence of sheen or suspended sediment</p>	<p>Photo 30</p>  <p>Entrance to Fish Creek and bridge protected by bollards</p>

Photo Addendum

Photo 31



King Street Brewery spent grain storage

Photo 32



King Street Brewery covered drain

Photo 33



King Street Brewery public grain distribution

Photo 34



King Street Brewery public grain distribution

Photo 35



Alaska Stormwater settling tank

Photo 36



Alaska Stormwater intentional breach in the berm, near creek





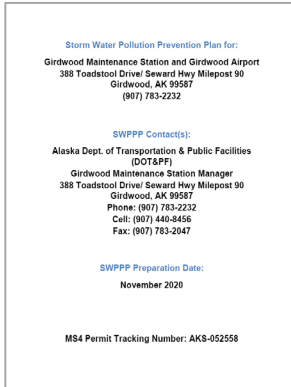
Photo Addendum	
Photo 37	Photo 38
	
Alaska Stormwater, downstream of breach	Creek near Alaska Stormwater breach
Photo 39	Photo 40
	
Alaska Stormwater vegetative berms	Alaska Stormwater vegetative berms
Photo 41	Photo 42
<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p style="text-align: center; color: #0070C0; font-size: small;">Storm Water Pollution Prevention Plan (SWPPP) for:</p> <p style="text-align: center; font-size: small;">Anchorage Maintenance Station 5300 East Tudor Road Anchorage, AK 99507 Phone: (907) 338-1432</p> <p style="text-align: center; color: #0070C0; font-size: x-small;">SWPPP Contact(s):</p> <p style="text-align: center; font-size: x-small;">Alaska Dept. of Transportation & Public Facilities (DOT&PF) Anchorage Maintenance Station Manager 5300 East Tudor Road Anchorage, AK 99507 Phone: (907) 338-1426 Cell: (907) 440-8452 Fax: (907) 337-6811</p> <p style="text-align: center; color: #0070C0; font-size: x-small;">SWPPP Preparation Date: November 2020</p> <p style="text-align: center; font-size: x-small;">MS4 Permit Tracking Number: AKS-052558</p> </div>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p style="text-align: center; color: #0070C0; font-size: small;">Storm Water Pollution Prevention Plan for:</p> <p style="text-align: center; font-size: small;">Birchwood Maintenance Station and Birchwood Airport 20651 Birchwood Spur Road Chugiak, Alaska 99567 Phone: (907) 338-1432</p> <p style="text-align: center; color: #0070C0; font-size: x-small;">SWPPP Contact:</p> <p style="text-align: center; font-size: x-small;">Alaska Dept. of Transportation & Public Facilities (DOT&PF) Anchorage Maintenance Station Manager 5300 East Tudor Road Anchorage, AK 99507 Phone: (907) 338-1426 Cell: (907) 440-8452 Fax: (907) 337-6811</p> <p style="text-align: center; color: #0070C0; font-size: x-small;">SWPPP Preparation Date: November 2020</p> <p style="text-align: center; font-size: x-small;">MS4 Permit Tracking Number: AKS-052558</p> </div>
Anchorage Maintenance Station SWPPP	Birchwood Maintenance Station SWPPP

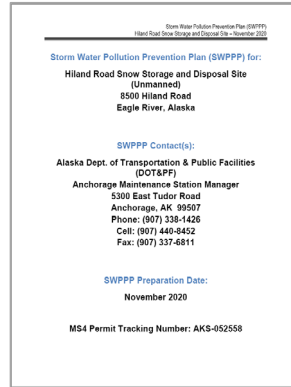
Photo Addendum

Photo 43



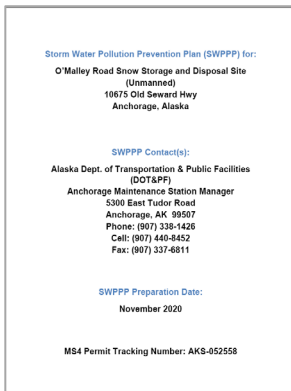
Girdwood Maintenance Station SWPPP

Photo 44



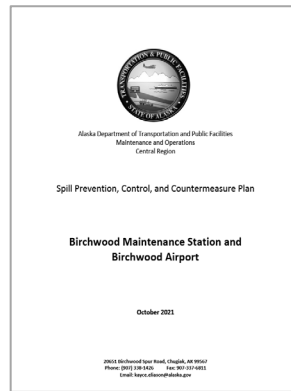
Hiland Road Snow Dump Storage SWPPP

Photo 45



O'Malley Rd. Snow Storage SWPPP

Photo 46



Birchwood Maintenance Station SPCC Plan

Photo 47



2019 AR certification statement; MOA

Photo 48

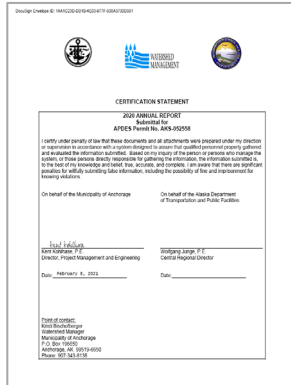


2019 AR certification statement; DOT

Photo Addendum

Photo 49

Photo 50



2020 AR certification statement; MOA

2020 AR certification statement; DOT