Montana Department of Environmental Quality
WATER PROTECTION BUREAU

Agency Use
MTR04_____
Date Rec'd:
Amount Rec'd:
Check No.:
Rec'd By:

FORM
MS4-AR

MPDES Storm Water Small MS4 Annual Report Form

Reporting period is for the calendar year, January 1st through December 31st. Check one. Annual Report is due by March 1st of the following year.

○ 2017 ○ 2018 ◉ 2019 ○ 2020 ○ 2021

Instructions: This Annual Report Form is to be completed by each permittee and co-permittee authorized to discharge storm water under the General Permit for Storm Water Discharges Associated with Small Municipal Separate Storm Water Sewer Systems (MS4s). All authorized permittees and co-permittees are required to complete this Annual Report Form for each calendar year reporting period. For co-permittees authorized under one permit authorization or for co-permittees with multiple authorizations, you are required to complete this form and submit separate required documents/information exclusively for your respective regulated Small MS4 area(s). This completed Annual Report Form must be electronically submitted to the Montana Department of Environmental Quality, Water Protection Bureau. Electronic submission is required through the web-based tool: NetDMR. Additional information is located on DEQ's website: http://deq.mt.gov/Water/WQINFO/ctss/netdmr.

Small MS4 Authorization Number: MTR04 0008

Small MS4 Classification	○ **Traditional**	◉ **Non-Traditional**

Small MS4 Name: Malmstrom Air Force Base

Small MS4 Mailing Address: 39 78th Street North

City, State, and Zip Code: Malmstrom AFB, MT 59402

Small MS4 Contact Person (and Title): Cody Koontz, Environmental Engineer

Mailing Address: 39 78th Street North

City, State, and Zip Code: Malmstrom AFB, MT 59402

Phone Number: (**)** 406-731-6155 **E-mail address:** cody.koontz@us.af.mil

Storm Water Management Team: Attach an organizational chart identifying a primary SWMP coordinator and the positions responsible for implementing each minimum measure.

Requested above chart:	(•) Attached See Attachment 2	( ) Not Attached

Has the permittee established and executed a formalized mechanism for regular communication between storm water management team members?	(•) Yes	( ) No

Permittee's SWMP Resources:
How many FTEs does the permittee designate to the MS4 permit? 1.25 If needed, provide an explanation.

If more space is needed, submit on an additional page with corresponding reference or on a data storage device.

Answer the following five (5) questions on an additional page with corresponding reference or on a data storage device. See Attachment 1

(1) What are the source(s) of funding for implementation of the MS4 permit and the estimated percentage of the total budget allocated from each source listed?

(2) Specific to the annual reporting calendar year, how did the permittee justify commitment of resources or budget allocations to the implementation of the MS4 permit to decision-makers and the public? Provide a summary of meetings and outcomes held with decision-makers and the public.

(3) Has the permittee demonstrated program effectiveness to obtain budget allocations for this annual reporting calendar year or previous years? Why or why not? If so, what program effectiveness metrics were presented?

(4) How was this annual reporting calendar year's approach to allocate resources different than the previous year's approach?

(5) Was the permittee successful in their request for budget allocations? Describe the outcome and factors that affected or resulted in that outcome.

Illicit Discharge Detection & Elimination: Per the IDDE MCM requirement (Part II (3)(c.i)), has the permittee reviewed, and updated if needed, the storm sewer map during the calendar year?	(•) Yes	( ) No
Per the IDDE MCM requirement (Part II (3)(e.i)), has the permittee dry weather inspected and screened outfalls during the calendar year?	(•) Yes	( ) No

Fill in the blanks with numbers. The permittee has inspected 6 outfalls during this calendar year. Since authorization under the 2017 General Permit, the permittee has inspected 6 total outfalls out of the 6 total MS4 outfalls.

Per the Illicit Discharge Detection & Elimination MCM (Part II (3)(e.i)), the permittee will complete the requirement to inspect and screen all outfalls during dry weather by the end of the permit cycle.	(●) Yes	( ) No
Construction Site Storm Water Management: During the calendar year, how many construction storm water management plan reviews were completed (Part II (4)(b))? 5		
During the calendar year, how many construction projects were inspected for their storm water management controls (Part II (4)(c))? 4		
Pollution Prevention/Good Housekeeping for Permittee Operations: Has the permittee reviewed, and updated if needed, the inventory of permittee-owned/operated facilities and activities (Part II (6)(a.i))?	(●) Yes	( ) No
Has the permittee reviewed, and updated if needed, the map that identifies the locations of facilities and known locations of activities (Part II (6)(a.ii))?	(●) Yes	( ) No
Has the permittee conducted annual storm water pollution prevention training for permittee staff during the next permit year after development of each standard operating procedure (Part II (6)(a.v))? ***Not applicable during calendar year 2017, 2018, and 2019. Check "No" during these years.***	( ) Yes	(●) No
Training: According to Part II (B) Training requirements, has the permittee conducted applicable training during the 1st and 4th calendar years? ***Not required during calendar year 2018, 2019, and 2021. Check "No" during these years.***	( ) Yes	(●) No
According to Part II (B) Training requirements, has the permittee conducted applicable new employee training within 90 days of the hire date?	(●) Yes	( ) No
Special Conditions: Per **Pre-TMDL Approval (Part III.A) requirements**, attach the required information regarding identification of all outfalls that discharge to impaired waterbodies, the impaired waterbodies, and the associated pollutants of impairments. Summarize the BMPs implemented over the reporting period and a schedule of BMPs planned for the following year.		
(●) Attached	( ) Not Attached	( ) Not Applicable
Special Conditions: Approved TMDLs (Part III.B) requirements per calendar year below.		
Calendar Year 2017: The permittee has attached a Sampling Plan that includes strategy rationale, monitoring frequency, monitoring parameters, and monitoring locations.		
( ) Attached	( ) Not Attached	(●) Not Applicable

Calendar Year 2017: The permittee has attached all outfalls that discharge to impaired waterbodies and the associated pollutants of impairment.		
○ Attached	○ Not Attached	◉ Not Applicable
Calendar Year 2018: The permittee has attached all outfalls that discharge to impaired waterbodies and the associated pollutants of impairment.		
○ Attached	○ Not Attached	◉ Not Applicable
Calendar Year 2019: The permittee has attached all outfalls that discharge to impaired waterbodies and the associated pollutants of impairment.		
○ Attached	○ Not Attached	◉ Not Applicable
Calendar Year 2020: The permittee has attached all outfalls that discharge to impaired waterbodies and the associated pollutants of impairment.		
○ Attached	○ Not Attached	◉ Not Applicable
Calendar Year 2020: The permittee has attached the TMDL section of the SWMP that identifies the measures and BMPs it plans to implement, describes the MS4's impairment priorities and long term strategy, and outlines interim milestones for controlling the discharge of the pollutants of concern and making progress towards meeting the TMDL.		
○ Attached	○ Not Attached	◉ Not Applicable
Calendar Year 2021: The permittee has attached all outfalls that discharge to impaired waterbodies and the associated pollutants of impairment.		
○ Attached	○ Not Attached	◉ Not Applicable
Calendar Year 2021: The permittee has evaluated the TMDL section of the SWMP based on monitoring results. The section has been revised, if needed, and is attached.		
○ Attached	○ Not Attached	◉ Not Applicable
Monitoring: Per requirements in Part IV (B), has the permittee attached monitoring results, calculations, and evaluations?		
◉ Attached See Attachment 1	○ Not Attached	○ Not Applicable

INSTRUCTIONS: The permittee will only fill out the Annual Report Attachments section below that corresponds to the calendar in which an Annual Report is being submitted for. Attach the requested documents/information.

2017 Annual Report Attachments (1st Calendar Year)		
Public Education and Outreach:		
Per requirements a.i in the referenced MCM, attach the required information regarding key target audiences and associated pollutants.		
◯ Attached	◯ Not Attached	
Public Involvement and Participation:		
Per requirements a.i in the referenced MCM, attach the required information regarding the public involvement approach and schedule of each key audience.		
◯ Attached	◯ Not Attached	
Illicit Discharge Detection & Elimination:		
Per requirements a.i in the referenced MCM, attach the required information regarding categories of non-storm water discharges or flows, associated pollutants, and local controls or conditions.		
◯ Attached	◯ Not Attached	
Per requirements b.i in the referenced MCM, attach the required information regarding occasional non-storm water discharges or flows, associated pollutants, and local controls or conditions.		
◯ Attached	◯ Not Attached	
Per requirements f.i in the referenced MCM, attach the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.		
◯ Attached	◯ Not Attached	
Construction Site Storm Water Management:		
Per requirements a.iii in the referenced MCM, attach progress towards an Enforcement Response Plan and associated documents.		
◯ Attached	◯ Not Attached	
Specific to Traditional MS4s and per requirements b.i in the referenced MCM, attach the construction storm water management plan review checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements b.iii in the referenced MCM, attach the construction storm water management plan review checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Traditional MS4s and per requirements c.i in the referenced MCM, attach the construction storm water management inspection form or checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements c.ii in the referenced MCM, attach the construction storm water management inspection form or checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable

Post-Construction Site Storm Water Management in New and Redevelopment		
Specific to Traditional MS4s and per requirements b.i in the referenced MCM, attach the post-construction storm water management plan review checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements b.ii in the referenced MCM, attach the post-construction storm water management plan review checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable
Per requirements in b.iii in the referenced MCM, attach the performance standards and associated documents.		
◯ Attached	◯ Not Attached	

2018 Annual Report Attachments (2nd Calendar Year)

Public Education and Outreach:		
Per requirements b.i in the referenced MCM, attach the required information regarding outreach messages.		
◯ Attached	◯ Not Attached	
Per requirements c.i in the referenced MCM, attach the required information regarding a description of formats, distribution channels and schedule for key target audiences.		
◯ Attached	◯ Not Attached	
Public Involvement and Participation:		
Per requirements a.ii in the referenced MCM, attach the required information regarding participation and key target audience feedback on approaches.		
◯ Attached	◯ Not Attached	
Illicit Discharge Detection & Elimination:		
Per requirements a.i in the referenced MCM, attach the required information regarding categories of non-storm water discharges or flows, associated pollutants, and local controls or conditions.		
◯ Attached	◯ Not Attached	
Per requirements b.i in the referenced MCM, attach the required information regarding occasional non-storm water discharges or flows, associated pollutants, and local controls or conditions.		
◯ Attached	◯ Not Attached	
Specific to Traditional MS4s and per requirements d.i in the referenced MCM, attach the adopted ordinance or other regulatory mechanism to prohibit illicit discharges.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements d.ii in the referenced MCM, attach the summary of legal authority to prohibit illicit discharges.		
◯ Attached	◯ Not Attached	◯ Not applicable
Per requirements d.iii in the referenced MCM, attach the required summary of the cooperative agreements.		

◯ Attached	◯ Not Attached	
Per requirements d.iv in referenced MCM, attach the Enforcement Response Plan and associated documents.		
◯ Attached	◯ Not Attached	
Per requirements e.ii in referenced MCM, attach the list of high priority outfalls.		
◯ Attached	◯ Not Attached	
Specific to Traditional MS4s and per requirements f.iii in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements f.iv in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.		
◯ Attached	◯ Not Attached	◯ Not applicable
Post-Construction Site Storm Water Management in New and Redevelopment		
Specific to Traditional MS4s and per requirements c.i in the referenced MCM, attach the post-construction storm water management inspection form or checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements c.ii in the referenced MCM, attach the post-construction storm water management inspection form or checklist.		
◯ Attached	◯ Not Attached	◯ Not applicable
Per requirements in c.iii in the referenced MCM, attach the inventory of all new permittee-owned and private post-construction storm water management controls.		
◯ Attached	◯ Not Attached	
Per requirements in c.vi in the referenced MCM, attach an inspection frequency protocol.		
◯ Attached	◯ Not Attached	
Specific to Traditional MS4s and per requirements c.vii, attach the developed inspection program.		
◯ Attached	◯ Not Attached	◯ Not applicable
Pollution Prevention/Good Housekeeping for Permittee Operations		
Per requirements in a.iii in the referenced MCM, attach completed Standard Operating Procedures.		
◯ Attached	◯ Not Attached	

Attachment 1

2019 Annual Report Attachments (3rd Calendar Year)

Public Education and Outreach:

Per requirements c.ii in the referenced MCM, attach the required information regarding outreach materials distributions.

(●) Attached	( ) Not Attached

Public Involvement and Participation:

Per requirements a.ii in the referenced MCM, attach the required information regarding participation and key target audience feedback on approaches.

(●) Attached	( ) Not Attached

Illicit Discharge Detection & Elimination:

Per requirements a.i in the referenced MCM, attach the required information regarding categories of non-storm water discharges or flows, associated pollutants, and local controls or conditions.

(●) Attached	( ) Not Attached

Per requirements b.i in the referenced MCM, attach the required information regarding occasional non-storm water discharges or flows, associated pollutants, and local controls or conditions.

(●) Attached	( ) Not Attached

Per requirements e.ii in referenced MCM, attach the list of high priority outfalls.

(●) Attached	( ) Not Attached

Per requirements e.iii in referenced MCM, attach the required summary of screening results.

(●) Attached	( ) Not Attached

Specific to Traditional MS4s and per requirements f.iii in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.

( ) Attached	( ) Not Attached	(●) Not applicable

Specific to Non-Traditional MS4s and per requirements f.iv in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.

(●) Attached	( ) Not Attached	( ) Not applicable

Construction Site Storm Water Management:

Specific to Traditional MS4s and per requirements a.i in the referenced MCM, attach the adopted ordinance or other regulatory mechanism to require construction storm water controls.

( ) Attached	( ) Not Attached	(●) Not applicable

Specific to Non-Traditional MS4s and per requirements a.ii in the referenced MCM, attach the legal authority summary.

(●) Attached	( ) Not Attached	( ) Not applicable

Per requirements a.iii in the referenced MCM, attach the adopted Enforcement Response Plan and associated documents.

(●) Attached	( ) Not Attached

Post-Construction Site Storm Water Management in New and Redevelopment

Per requirements in c.viii in the referenced MCM, attach findings and compliance actions regarding inspections of high priority post-construction storm water management controls.		
(•) Attached	( ) Not Attached	
Specific to Traditional MS4s and per requirements c.ix, attach the findings and resulting actions regarding inspections of high priority privately-owned post-construction storm water management controls.		
( ) Attached	( ) Not Attached	(•) Not applicable
Pollution Prevention/Good Housekeeping for Permittee Operations		
Per requirements in a.iii in the referenced MCM, attach the completed Standard Operating Procedures.		
(•) Attached	( ) Not Attached	

2020 Annual Report Attachments (4th Calendar Year)

Public Education and Outreach:		
Per requirements c.ii in the referenced MCM, attach the required information regarding outreach materials distributions.		
( ) Attached	( ) Not Attached	
Public Involvement and Participation:		
Per requirements a.ii in the referenced MCM, attach the required information regarding participation and key target audience feedback on approaches.		
( ) Attached	( ) Not Attached	
Illicit Discharge Detection & Elimination:		
Per requirements a.i in the referenced MCM, attach the required information regarding categories of non-storm water discharges or flows, associated pollutants, and local controls or conditions.		
( ) Attached	( ) Not Attached	
Per requirements b.i in the referenced MCM, attach the required information regarding occasional non-storm water discharges or flows, associated pollutants, and local controls or conditions.		
( ) Attached	( ) Not Attached	
Per requirements e.ii in referenced MCM, attach the list of high priority outfalls.		
( ) Attached	( ) Not Attached	
Per requirements e.iii in referenced MCM, attach the required summary of screening results.		
( ) Attached	( ) Not Attached	
Specific to Traditional MS4s and per requirements f.iii in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.		
( ) Attached	( ) Not Attached	( ) Not applicable
Specific to Non-Traditional MS4s and per requirements f.iv in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge		

Investigation and Corrective Action Plan and any associated documents.		
◯ Attached	◯ Not Attached	◯ Not applicable
Post-Construction Site Storm Water Management in New and Redevelopment		
Specific to Traditional MS4s and per requirements a.i in the referenced MCM, attach the adopted ordinance or other regulatory mechanism to require post-construction storm water controls.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements a.ii in the referenced MCM, attach the legal authority summary.		
◯ Attached	◯ Not Attached	◯ Not applicable
Per requirements in a.iii in the referenced MCM, attach the Enforcement Response Plan and associated documents.		
◯ Attached	◯ Not Attached	
Per requirements in c.viii in the referenced MCM, attach findings and compliance actions regarding inspections of high priority post-construction storm water management controls.		
◯ Attached	◯ Not Attached	
Specific to Traditional MS4s and per requirements c.ix, attach the findings and resulting actions regarding inspections of high priority privately-owned post-construction storm water management controls.		
◯ Attached	◯ Not Attached	◯ Not applicable
Per requirements in d.i in the referenced MCM, attach a summary of the discussion outcomes.		
◯ Attached	◯ Not Attached	
Pollution Prevention/Good Housekeeping for Permittee Operations		
Per requirements in a.iii in the referenced MCM, attach the completed Standard Operating Procedures.		
◯ Attached	◯ Not Attached	

2021 Annual Report Attachments (5th Calendar Year)

Public Education and Outreach:	
Per requirements c.ii in the referenced MCM, attach the required information regarding outreach materials distributions.	
◯ Attached	◯ Not Attached
Public Involvement and Participation:	
Per requirements a.ii in the referenced MCM, attach the required information regarding participation and key target audience feedback on approaches.	
◯ Attached	◯ Not Attached
Illicit Discharge Detection & Elimination:	
Per requirements a.i in the referenced MCM, attach the required information regarding categories of non-storm water discharges or flows, associated pollutants, and local controls or conditions.	

◯ Attached	◯ Not Attached	
Per requirements b.i in the referenced MCM, attach the required information regarding occasional non-storm water discharges or flows, associated pollutants, and local controls or conditions.		
◯ Attached	◯ Not Attached	
Per requirements e.ii in referenced MCM, attach the list of high priority outfalls.		
◯ Attached	◯ Not Attached	
Per requirements e.iii in referenced MCM, attach the required summary of screening results.		
◯ Attached	◯ Not Attached	
Specific to Traditional MS4s and per requirements f.iii in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.		
◯ Attached	◯ Not Attached	◯ Not applicable
Specific to Non-Traditional MS4s and per requirements f.iv in the referenced MCM, attach the summary of investigations conducted and corrective actions taken per the required Illicit Discharge Investigation and Corrective Action Plan and any associated documents.		
◯ Attached	◯ Not Attached	◯ Not applicable
Post-Construction Site Storm Water Management in New and Redevelopment		
Per requirements in c.viii in the referenced MCM, attach findings and compliance actions regarding inspections of high priority post-construction storm water management controls.		
◯ Attached	◯ Not Attached	
Specific to Traditional MS4s and per requirements c.ix, attach the findings and resulting actions regarding inspections of high priority privately-owned post-construction storm water management controls.		
◯ Attached	◯ Not Attached	◯ Not applicable
Pollution Prevention/Good Housekeeping for Permittee Operations		
Per requirements in a.iii in the referenced MCM, attach completed Standard Operating Procedures.		
◯ Attached	◯ Not Attached	
Attach any updates, changes, or improvements to the Small MS4 Storm Water Management Program per requirements in Part IV (E).		
◯ Attached	◯ Not Attached	◯ Not applicable

Annual Report Form Signature

This Annual Report Form must be completed, signed, and certified as follows:

- **For a corporation, by a principal officer of at least the level of vice president;**
- **For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or**

For a municipality, state, federal, or other public facility, by either a principal executive officer or rankir elected official.

All Permittees Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA].

Certification of this form indicates conformance with the 2017 General Permit for Storm Water Discharge Associated with Small Municipal Separate Storm Sewer Systems and the required Annual Reporting upon receipt of permit coverage.

Name (Type or Print)	
John W. Hale	
Title (Type or Print)	**Phone Number**
Deputy Base Civil Engineer	
Signature	**Date Signed**
HALE.JOHN.W.1006835933 Digitally signed by HALE.JOHN.W.1006835933 Date: 2020.02.04 15:15:38 -07'00'	4 Feb 20

Attachment 1: 2019 MS4 Annual Report Responses

2019 ANNUAL REPORT RESPONSES

ADDITIONAL QUESTIONS ON STORM WATER RESOURCES

The following questions are from the MS4 Annual Report Form regarding budget and resources.

1. WHAT ARE THE SOURCE(S) OF FUNDING FOR IMPLEMENTATION OF THE MS4 PERMIT AND THE ESTIMATED PERCENTAGE OF THE TOTAL BUDGET ALLOCATED FROM EACH SOURCE LISTED?

Funded through U.S. Congress; 100%

2. SPECIFIC TO THE ANNUAL REPORTING CALENDAR YEAR, HOW DID THE PERMITTEE JUSTIFY COMMITMENT OF RESOURCES OR BUDGET ALLOCATIONS TO THE IMPLEMENTATION OF THE MS4 PERMIT TO DECISION-MAKERS AND THE PUBLIC? PROVIDE A SUMMARY OF MEETINGS AND OUTCOMES HELD WITH DECISION-MAKERS AND THE PUBLIC.

The program funding is justified through specific permit requirements and projected workload. If the storm water program needs support, the storm water manager can request funds through the Air Force Civil Engineer Center.

Infrastructure projects are funded either funded through the Air Force Civil Engineer Center or funded locally. Storm water projects are scored and ranked against other infrastructure projects. Based on several work requests, Malmstrom was able to fund the outfall slide gate investigation contract. This provided a status report on the slide gates and what worked will be required to bring them back to working condition.

No additional personnel or direct funds were added to the MS4 Program in 2019.

3. HAS THE PERMITTEE DEMONSTRATED PROGRAM EFFECTIVENESS TO OBTAIN BUDGET ALLOCATIONS FOR THIS ANNUAL REPORTING CALENDAR YEAR OR PREVIOUS YEARS? WHY OR WHY NOT? IF SO, WHAT PROGRAM EFFECTIVENESS METRICS WERE PRESENTED?

Funding is based on requirements of the permit, not program effectiveness.

4. HOW WAS THIS ANNUAL REPORTING CALENDAR YEAR'S APPROACH TO ALLOCATE RESOURCES DIFFERENT THAN THE PREVIOUS YEAR'S APPROACH?

The focus in 2019 was to include additional requirements into the Storm Water Management Plan and to implement additional sampling protocols as a result of the audit performed by DEQ. Malmstorm focused on distributing more BMP products to the shops covered under the Industrial Storm Water Permit.

5. WAS THE PERMITTEE SUCCESSFUL IN THEIR REQUEST FOR BUDGET ALLOCATIONS? DESCRIBE THE OUTCOME AND FACTORS THAT AFFECTED OR RESULTED IN THAT OUTCOME.

Yes. Malmstrom AFB successfully obtained additional funds for storm water sampling for FY2020. The program is fully funded.

MONITORING/SAMPLING

In accordance with the MS4 Permit, 341 CES/CEIE conducted 2 sampling event at Outfalls 1-4 for a total of 8 samples in 2019. Table 1 describes the outfall locations by latitude and longitude. Table 2 on the following page shows the sampling parameter required by the permit and the results.

Since Malmstrom started monitoring in 2018, there is a limited amount of information that can be interpreted from the results. Most of the parameter levels have been maintained or lowered since the inception of monitoring. 341 CES/CEIE cannot directly relate any specific storm water control measure that has affected the results. It is possible that an increase in storm water awareness across the base has reduced pollutant loading. It is also possible that sampling techniques have matured and subsequently, have delivered more accurate results. Figures 1 and 2 show the total suspend solids (TSS) and copper concentration, respectively, for each outfall and sampling event. These two parameters are highlighted because the receiving surface water is impaired for sedimentation/siltation, turbidity, and copper. Other receiving water body impairments are not likely attributed to Malmstrom AFB activities.

Table 1- Outfall/Monitoring Locations

Outfall	Latitude	Longitude
1	47.520346	-111.196702
2	47.520582	-111-193409
3	47.521652	-111.173242
4	47.522181	-111.169653

Table 2- Outfall Monitoring and Sampling Results

Date	Outfall #	TSS (mg/L)	COD (mg/L)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Copper (mg/L)	Lead (mg/L)	Zinc (mg/L)	Oil/Grease (mg/L)	Flow Estimate (gpm)	Average pH	Water Temp (deg C)
20-Aug-18	1	12	89	3.1	0.12	0.008	0.0007	0.075	<1	892	8.12	16.0
17-May-19	1	<10	71	1.9	0.056	0.003	0.0006	0.049	<1	1059	8.00	10.0
9-Sep-19	1	12	15	1.1	0.067	0.002	0.0004	0.019	<1	1174	8.00	15.5
11-May-18	2	11	33	0.7	0.095	0.004	0.0007	0.019	<1	2334	8.00	9.2
17-May-19	2	12	43	1.3	0.084	0.005	0.0008	0.049	<1	309	7.99	10.7
9-Sep-19	2	10	24	0.9	0.092	0.004	0.0006	0.024	<1	1801	7.93	14.1
20-Aug-18	3	103	146	4.0	0.36	0.016	0.0068	0.110	<1	620	8.09	14.4
17-May-19	3	<10	20	1.1	0.05	0.0003	0.0004	0.016	<1	716	8.09	10.8
9-Sep-19	3	<10	13	<0.5	0.051	0.003	0.0004	0.015	<1	1653	8.00	14.5
11-May-18	4	72	38	1.0	0.185	0.005	0.0022	0.014	<1	390	7.87	9.3
17-May-19	4	<10	20	1.1	0.05	0.003	0.004	0.016	<1	2	7.07	9.1
9-Sep-19	4	18	11	<0.5	0.24	<0.002	<0.003	0.012	<1	2	6.74	12.0

Figure 1- Total Suspend Solids Concentration versus Outfall Sampling Event

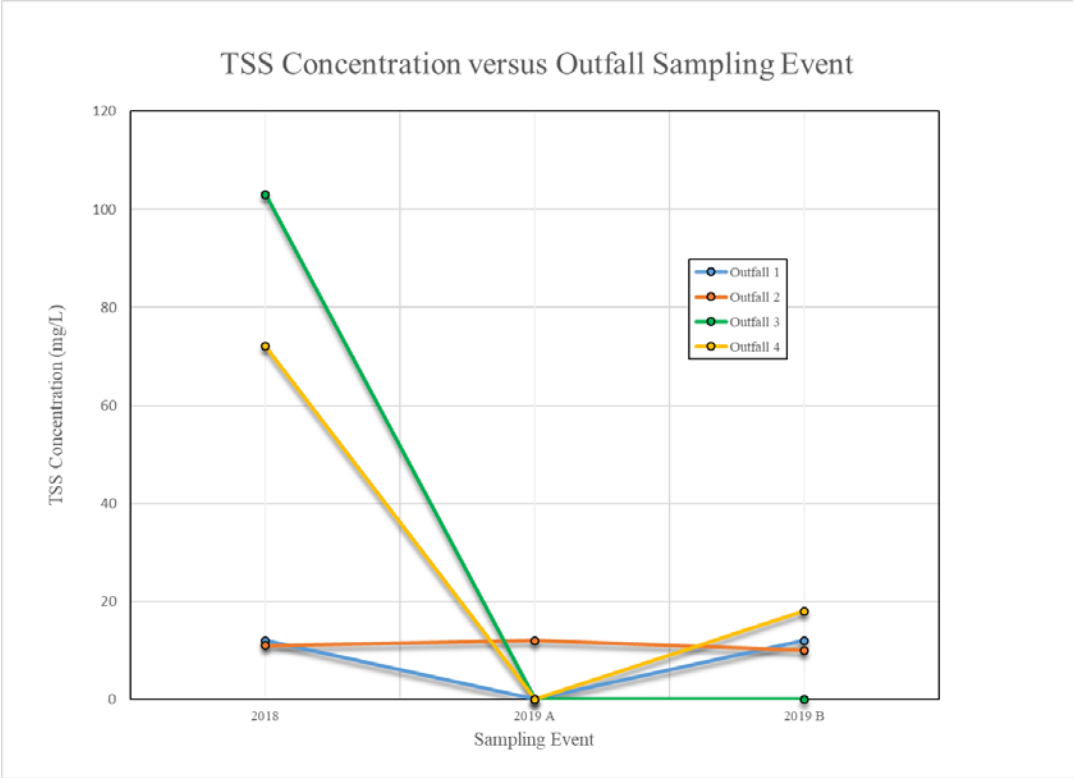
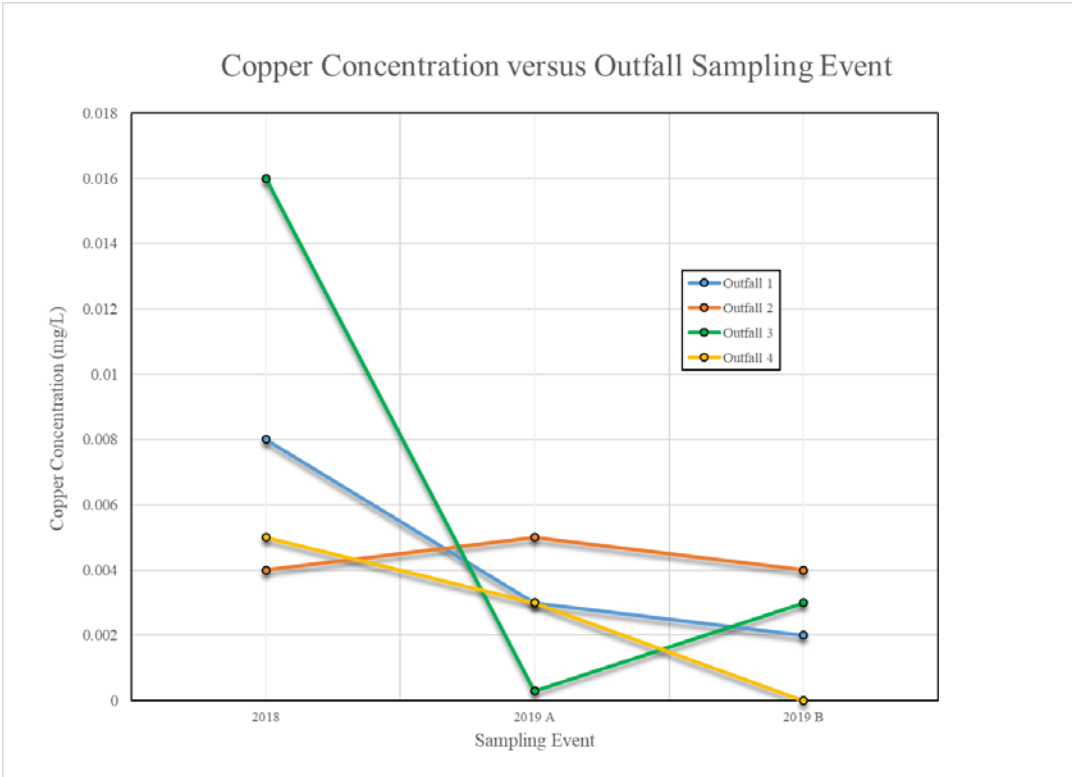


Figure 2- Copper Concentration versus Outfall Sampling Event



PRE-TOAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

All 6 of Malmstrom's storm water outfalls discharge to the Missouri River between Rainbow Dam and Morony Dam. This reach of the Missouri River is impaired for polychlorinated biphenyls, sedimentation/siltation, turbidity, arsenic, copper, and temperature. Of those, Malmstrom focuses on sedimentation/siltation and turbidity. Copper is a pollutant that we sample for in accordance with the MS4 Permit, Part IV, but Montana's Clean Water Information Center indicates copper pollution is from the abandon mine operations and industrial point source discharges. Malmstrom does not have any processes that would discharge copper to the storm sewer system.

Malmstrom's summary of BMP's implemented throughout the year is located in SWMP, Table 9-1. These BMPs specifically addressed sediment pollutant loading into the Missouri River. The TSS results during storm event sampling indicate that we are not discharging much sedimentation/siltation. Malmstrom will continue to implement the same approaches in CY2020 by conducting public outreach, public involvement, illicit discharge monitoring, construction site controls, and good housekeeping measures.

MINIMUM CONTROL MEASURE 1: PUBLIC EDUCATION AND OUTREACH

MS4 PART II.A.1.c.ii: DISTRIBUTE OUTREACH MATERIALS TO TARGET AUDIENCES

In calendar year 2019, Malmstrom's two target audiences were housing residents and equipment storage areas.

1. Malmstrom implemented the following approaches to address housing resident pollution.
    a. Each new housing resident is given a storm water informational brochure prior to moving in to a housing unit. This brochure is designed to raise storm water awareness and describe activities that can potentially generate pollutants. 341st Civil Engineer Squadron/ Environmental Element (341 CES/CEIE) delivered 300 brochures in December 2018 and 200 additional brochures in September 2019 to the housing authority (Balfour-Beatty Communities (BBC)).
    b. Volunteers marked housing area inlets on Malmstrom with "No Dumping, Drains to River" curb markers to raise storm water awareness. Volunteers marked approximately 200 inlets in 2019.
    c. Lastly, 341 CES/CEIE published two articles on Malmstrom public webpage that discussed pet waste and water body impairments. The pet waste article was published on 10 September 2019 and the Missouri River impairments article was published on 23 December 2019.
2. Malmstrom implemented the following approaches to address equipment storage area pollution.
    a. The equipment storage areas at Malmstrom are covered under the Multi-Sector General Permit for Industrial Storm Water Discharges (Industrial Permit). The Industrial Permit and associated Industrial Storm Water Pollution Prevention Plan (SWPPP) require extensive training for the designated personnel at each industrial facility. 341 CES/CEIE trained 31 personnel at the facilities designated as equipment storage areas. The Industrial Permit also requires periodic and storm event inspections. As a result of these inspections, the facilities then must implement corrective actions to protect storm water.
    b. For facilities with petroleum storage 55 gallons or greater, shop personnel must meet the requirements of Malmstrom's Spill Prevention, Control, and Countermeasure (SPCC) Plan. The SPCC Plan requires annual spill prevention training for all personnel that handle petroleum products at these facilities. Malmstrom trained 362 personnel across the installation in total. An estimated 15% of those personnel are at an equipment storage area.

MINIMUM CONTROL MEASURE 2: PUBLIC INVOLVEMENT AND PARTICIPATION

MS4 PART II.A.2.a.ii: IMPLEMENT IDENTIFIED INVOLVEMENT APPROACHES FOR EACH TARGET AUDIENCE, DOCUMENT PARTICIPATION AND FEEDBACK

As stated above, Malmstrom's two target audiences were housing residents and equipment storage areas.

1. Malmstrom implemented the following approaches to address housing resident pollution.
    a. On 19 Oct 2019, 9 volunteers marked approximately 200 storm water inlets with "No Dumping, Drains to River". These volunteers were base personnel that live on base either in a housing unit or a dorm. Based on the verbal feedback after the event, the volunteers enjoyed the event and asked when we were going to do the rest of the base.
2. Malmstrom implemented the following approaches to address equipment storage area pollution
    a. As stated above, 341 CES/CEIE trained 31 individuals on Industrial SWPPP requirements throughout 2019.
    b. 341 CES/CEIE hosted an annual training and feedback session for Industrial SWPPP personnel. During this meeting, personnel from each of the industrial shops were able to respond with what storm water approaches and Best Management Practices (BMPs) work best from them. 341 CES/CEIE also demonstrated several BMPs and offered to purchase any products for trial in the shops.
    c. 341 CES/CEIE purchased storm water filter sock BMPs for trial in the industrial shops. The goal is to give the industrial shops a personal responsibility for their storm water by giving them BMP options instead of directing them what to do. 341 CES/CEIE received verbal feedback that these BMPs work well and requested 341 CES/CEIE purchase more.
3. In addition, Malmstrom implemented the following approaches to involve base personnel as a whole.
    a. On 7 January 2019, Malsmtrom personnel conducted a basewide cleanup event. The event helped remove trash across the developed areas of base.
    b. On 4 and 11 May 2019, Malmstrom teamed with the City of Great Falls and executed the annual MApril Cleanup. While not directly related to Malmstrom, it raised storm water awareness for the volunteers. A total of 404 base personnel participated in the 2-day event. Malmstrom personnel alone accounted for 23 tons of the total 32 tons of trashed picked up.

MINIMUM CONTROL MEASURE 3: ILLICIT DISCHARGE DETECTION & ELIMINATION

MS4 PART II.A.3.a.i: EVALUATE AND INCLUDE A LIST OF NON-STORM WATER DISCHARGES THAT ARE SIGNIFICANT CONTRIBUTORS OF POLLUTANTS AND DOCUMENT THE CONTROLS ON THESE DISCHARGES

In calendar year 2019, 341 CES/CEIE reviewed Storm Water Management Plan (SWMP) Table 4-2 to address frequent and significant non-storm water discharges and their associated controls. There are no new frequent and significant non-storm water discharges that 341 CES/CEIE encountered in 2019.

MS4 PART II.A.3.b.i: EVALUATE AND INCLUDE A LIST OF OCCASIONAL INCIDENTAL NON-STORM WATER DISCHARGES THAT WILL NOT BE ADDRESSED AS ILLICIT DISCHARGES AND DOCUMENT THE CONTROLS ON THESE DISCHARGES

In calendar year 2019, 341 CES/CEIE reviewed Storm Water Management Plan (SWMP) Table 4-3 to address occasional frequent non-storm water discharges and their associated controls. There are no new occasional frequent non-storm water discharges that 341 CS/CEIE encountered in 2019.

MS4 PART II.A.3.e.ii: USE INSPECTION AND SCREENING RESULTS TO DETERMINE HIGH PRIORITY OUTFALLS

Of the 6 total outfalls, 341 CES/CEIE determined that Outfalls 1-4 are high priority. These four drainage areas have much of Malmstrom's potential pollution sources and personnel. Outfalls 5 and 6 rarely see flow during storm events and primarily use natural infrastructure (i.e. swales) to convey the storm water. This increases infiltration and reduces the probability of an illicit discharge leaving the base boundary.

MS4 PART II.A.3.e.iii: INSPECT AND SCREEN HIGH PRIORITY OUTFALLS DURING DRY WEATHER AT LEAST ONCE PER YEAR

341 CES/CEIE inspected each of the 6 total storm water outfalls twice during dry weather in 2019. The water quality during all inspections seemed normal. Malmstrom continues to experience base flow during dry weather at Outfalls 1-3. This is historically normal. A study completed in 2008 determined the base flow originated from ground water drain tiles on the flightline.

The main issue plaguing the outfalls is the slide gates. Malmstrom executed an inspection and maintenance contract in August 2019 to determine the status of the outfall slide gates. In summary, all of the gate actuators need to replaced and cannot be refurbished. Malmstrom has a project programmed for design in Fiscal Year 2021 to address outfall infrastructure issues include the outfall gate actuators.

On 25 November 2019 at Outfall 6, 341 CES/CEIE noticed an increased flow from a channel that is normally dry. Upon investigation, the extra flow came from an increased amount of snow melt in an

area upstream of Powwow Pond. 341 CES/CEIE determined no further action was required for this instance.

MS4 PART II.A.3.f.iv: MAINTAIN DOCUMENTATION AND SUBMIT A SUMMARY OF INVESTIGATIONS AND CORRECTIVE ACTIONS TAKEN PER THE ILLICIT DISCHARGE INVESTIGATION AND CORRECTIVE ACTION PLAN

341 CES/CEIE maintains documentation on any illicit discharge discovered or reported. Table 3 on the following page summarizes the illicit discharges 341 CES/CEIE responded to in calendar year 2019.

Table 3: Illicit Discharge Detection and Elimination (IDDE) and Corrective Actions

Date of Incident	Location	Incident Type	Pollutant(s)	Corrective Action	Impacted Storm Water?
2/27/2019	Near EOD Range	Vehicle Accident	Antifreeze	Fire Department and environmental personnel responded with absorbent and collected the spent material for disposal	No
3/26/2019	Bldg 500	Trash Accumulation	Trash	Email notification sent to Bldg 500 personnel to place all trash in the dumpster, not beside it	No
4/1/2019	Sun Plaza Park	Trash Accumulation	Trash	Emailed solid waste contract manager about the overflowing dumpster. Dumpster emptied thereafter.	No
5/6/2019	WSA	Refueling spillage	Diesel	Diesel fuel spilled while using jerricans to refuel generators. 341 CES/CEIE gave Security Forces (spiller) absorbents to clean up the spilled fuel on the hard surfaces. Heavy equipment shop assisted in removing stained soil from around the generators. 341 CES/CEIE spoke to Security Forces member in charge personnel fueling the generators. All but one generator was removed the next day. For the remaining generator, 341 CES/CEIE supplied a nozzle for their jerrican to reduce future spillage.	No
6/3/2019	10th Ave N Gate	Vehicle Malfunction	Oil	Leaking personal vehicle. Fire Department and environmental personnel responded with absorbent and collected the spent material for disposal	No
6/23/2019	75th Street and Flightline Drive	Vehicle Accident	Battery Acid	Fire Department and environmental personnel responded with absorbent and collected the spent material for disposal	No
6/24/2019	Outdoor Recreation	Equipment Washing	Soap	Personnel were washing rafts outside near a storm drain inlet while they checked for leaks. Environmental responded and informed them to wash the rafts indoors.	No
7/25/2019	Commissary	Vehicle Accident	Coolant	Fire Department and environmental personnel responded. Towing company cleaned up and disposed of material	No

Date of Incident	Location	Incident Type	Pollutant(s)	Corrective Action	Impacted Storm Water?
7/31/2019	Near Bldg 470	Concrete Washout	Concrete Washout	Concrete truck driver was finishing up washing out his chute in a gravel area. Environmental spoke to the concrete truck driver about washing out his vehicle off base or at the designated spot on base.	No
8/15/2019	Bldg 1465	Human Error	Diesel	Personnel over sprayed an asphalt paving machine with diesel to remove the asphalt residue. This resulted in diesel dripping off the machine onto the pavement. Environmental provided personnel with absorbent material. Environmental instructed personnel on the importance of how this impacts storm water.	No
9/26/2019	Bldg 1448	Vehicle Malfunction	Hydraulic Fluid	A skid steer started leaking hydraulic fluid and was driven to the repair shop. Small drips were infeasible to clean up completely. It's a plus that the operator identified the leak and brought it to the shop immediately.	No
10/2/2019	WSA	Vehicle Malfunction	Hydraulic Fluid	Fire Department and environmental personnel responded with absorbent and collected the spent material for disposal.	No
10/4/2019	Bldg 400	Human Error	Battery Acid	Battery broke open during loading operation. Fire Department and environmental personnel responded with absorbent and collected the spent material for disposal.	No
10/16/2019	Bldg 740	Trash Accumulation	Trash	Picture of the overflowing dumpster sent to dorm manager. Dorm manager contacted solid waste contract manager to empty dumpster	No
12/20/2019	Bldg 1854	Vehicle Malfunction	Hydraulic Fluid	Environmental responded with absorbent and counseled the shop to prevent pollutants from entering the trench drain or other surfaces outside.	No

MINIMUM CONTROL MEASURE 4: CONSTRUCTION SITE STORM WATER MANAGEMENT

MS4 PART II.A.4.a.ii: ADOPT FORMAL POLICIES OR OTHER MECHANISMS TO CONTROL POLLUTANTS FROM PERMITTEE-OWNED/OPERATED CONSTRUCTION PROJECTS

Malmstrom has several approaches for addressing construction storm water management concerns that are summarized below. Malmstrom does not have the ability to adopt ordinances.

1. On 12 December 2018, the Malmstrom Wing Commander signed a storm water policy letter that includes construction site storm water management language. This demonstrates upper management's commitment to storm water quality. The policy letter can be accessed through Malmstrom's public website here: https://www.malmstrom.af.mil/Portals/43/documents/2019%20Storm%20Water%20Discharge%20Policy%20Letter%20signed.pdf?ver=2019-03-05-122113-167
2. Malmstrom primarily uses contract specifications to enforce construction storm water management. This specification is included in all construction contracts executed by Malmstrom.
3. Malmstrom controls ground disturbance activities through the TRIRIGA work request system and the Work Clearance Request process. In summary, no work occurs without 341 CES/CEIE reviewing the scope of work first. The Work Clearance Request process requires 341 CES/CEIE coordination before ground disturbance occurs. More details on the process are included in Malmstrom SWMP, Attachment 4.

MS4 PART II.A.4.a.iii: DEVELOP A FORMAL ENFORCEMENT RESPONSE PLAN TO ADDRESS CONSTRUCTION SITE STORM WATER MANAGEMENT

Malmstrom's Enforcement Response Plan is included in SWMP, Attachment 5. In summary, it covers personnel living on base, base personnel, and contractor personnel.

MINIMUM CONTROL MEASURE 5: POST-CONSTRUCTION SITE STORM WATER MANAGEMENT

MS4 PART II.A.5.c.viii: INSPECT PERMITTEE-OWNED HIGH PRIORITY POST-CONSTRUCTION STORM WATER MANAGEMENT CONTROLS ANNUALLY

In calendar year 2019, 341 CES/CEIE inspected all post-construction storm water features on base using form SW-105 (SWMP, Attachment 5). These features are all owned by Malmstrom and will therefore be maintained by the Air Force.

Most of the features are in good shape and do not require any maintenance at this point. The features that require maintenance are input into Malmstrom's TRIRIGA work request system. A summary of annual inspections are shown in Table 4.

Table 4: 2019 Post-Construction Feature Inspection Summary

Feature Name	BMP Type	Summary of Issues
10th Ave North Ponds	Extended Detention	Removed abandoned straw wattles Tree shoots coming up at upper pond inlet
74th Street, Dorm Ponds	Extended Detention	Windblown trash
Base Exchange	Swale with Extended Detention	None
Fitness Center Pond	Bioretention	Doesn't drain properly- working on solution
Flightline Ponds	Detention/Retention	None
Grizzly Bend	Bioretention	Windblown trash
Outfall 3 Pond	Extended Detention	Erosion and piping near outfall gate
Powwow Pond	Wet Detention Pond	None
Sun Plaza Park Pond	Extended Detention	None

MINIMUM CONTROL MEASURE 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING

MS4 PART II.A.6.a.iii: DEVELOP STANDARD OPERATING PROCEDURES (SOPS) FOR PERMITTEE-OWNED/OPERATED FACILITIES AND ACTIVITIES

341 CES/CEIE utilizes the Industrial SWPPP as a mechanism to write and execute SOPs. The language in the Industrial permit describes the SOPs as BMPs, but the intent is the same. Table 5 shows the shops that are enrolled under the Industrial SWPPP and the type of work they do. Figures 1 describes the menu of BMPs/SOPs available to each shop. Each shop is assigned a list of BMPs/SOPS depending on the type of work the shop is responsible for. Per the Industrial SWPPP, 341 CES/CEIE trains shop representatives on the BMPs/SOPs, and representatives must completed quarterly/storm event inspections.

Table 5: Industrial SWPPP Shops

Org/Shop Symbol	Shop Name	Facility/Activity Type
219 RHS/DOP 819 RHS/DOP	Airfields	Heavy equipment construction, deployable
219 RHS/DOSP 819 RHS/DOSEA	Power Pro	Generator operations/maintenance, deployable
341 CES/CEOES	Grounds Maintenance Contractor	Landscape maintenance
341 CES/CEOHP	Pavements and Maintenance (Horizontal)	Heavy equipment construction, snow removal
341 LRS/LGRMSF	Fuels Maintenance Contractor	Bulk fuel tank maintenance and delivery
341 LRS/LGRV	Truck Tractor Maintenance	Large vehicle maintenance
341 LRS/LGRV	Vehicle Maintenance	Light vehicle maintenance
582 HG/MXOO	Helicopter Maintenance Contractor	Helicopter maintenance and refueling
819 RHS/DOSMS	Structures	Carpentry
819 RHS/LGVM	Vehicle Maintenance	Heavy equipment maintenance

Figure 3: Industrial SWPPP BMPs/SOPs

APPENDIX D
BEST MANAGEMENT PRACTICES

Table D-1 lists the Best Management Practices (BMPs) which apply to MAFB industrial facilities. See the Appendix E inspection forms for individual BMPs at each facility.

Table D-1. Industrial Facility BMP List

BMP_ID	Description	Detailed Procedure
F1	Inspect dumpsters, fencelines	Inspect dumpsters and shop boundary fencelines at least quarterly for over-filling, blowing trash, general housekeeping.
F2	Cover Dumpsters, Secure Trash	Install lids or covers on all dumpsters or waste containers where possible. Ensure all dumpster and waste container lids or covers are kept closed.
F3	Seal dumpster bungs, Prevent or control liquid discharge	Ensure dumpster drain plugs are in place and in good condition. Report any evidence of lea chant or other discharges to the SWPPPP Administrator.
F4	Petroleum, oil, lubricant (POL) spills, sediment, etc. cleaned from pavement	Inspect and sweep paved surfaces to remove sediment and prevent discharge. Ensure that wet or dry pavement, sidewalk, floor, and deck cleaning procedures include proper waste pickup and disposal. For wet cleanup procedures, use vacuum truck, street sweeper, or similar.
F5	Perform Wet Weather Inspections	Perform at least one routine inspection per year during wet-weather to observe MS4 curbs, gutters, pipelines, inlets, flow across paved areas, etc.
F6	Ensure personnel are trained	Verify that shop supervisor has received initial SWPPP implementation training. 341 CES/CEIEC will maintain training records.
F7	Perform timely quarterly and storm event inspections	Perform timely storm event and quarterly routine inspections.
O1	Control pollution during fueling, oiling, or other fluids management. Maintain SPCC training, spill prevention, timely reporting. Ensure no evidence of spills.	Follow procedures in the MAFB SPCC Plan during all fueling, fluid addition, or other equipment maintenance operations.
O2	Ensure no contamination from bulk fuels receipt, transfers, terminal operations	Follow procedures in the MAFB SPCC Plan during all bulk fuel receipts from vendors, fuel transfers between storage tanks, fuel truck operations, etc. Use active pollution prevention controls (multiple personnel, deadman switches, ullage measurements, storm sewer inlet covers, etc.) where required. Implement Technical Orders or checklists such as "South Storage (Jet-A System) LCL-01", "Service Station Transferred / Receipt SSTA LCL-03", etc.
O3	Perform monthly, annual bulk storage tank inspections	Ensure timely performance of monthly and annual bulk fuel storage tank inspections per SPCC Tables A-5 and A-6, respectively
O4	Outdoor materials storage on pallets, blocks, etc. only, not directly on the ground Minimal evidence of weather damage	Do not store palletized bulk materials outdoors unless the materials are weatherproof. Monitor loading and unloading processes for leakage, burst bags, etc. Clean up all spills, damaged goods, sawdust, swarf, etc. with wet or dry methods as needed.
O5	Implement effective construction storm water BMPs for all projects regardless of size	Implement construction storm water Best Management Practices for all outdoor projects, regardless of size. Implement permit coverage and maintain Storm Water Pollution Prevention Plans for all projects 1 acre or larger.
O6	No evidence of sawdust, paint chips, overspray, cuttings, or other discharges	Monitor all construction projects, repair sites, renovation projects, materials storage areas, facility grounds, etc. and remove sawdust, trash, spilled bulk materials, or other contaminants.
S1	Outdoor clean scrap storage on pallets, blocks, etc. only, not directly on the ground	Outside storage of scrap metal or other materials directly on the ground is prohibited. Store all uncontaminated material storage on pallets, blocking, in containers, etc. if outdoors.
S2	Contaminated scrap storage under cover or in containment. No signs of POL, other spills	Store all contaminated material (machine shop cuttings, lubricated metal, etc.) indoors where possible. Outdoors, store such material in a dumpster or container with a closed lid or within secondary containment. Monitor all outdoor storage containers for leakage, oil slicks, leachate, etc.
V1	All repairs, maintenance performed indoors	Perform all equipment maintenance or repair indoors or under cover.

Figure 3: Industrial SWPPP BMPs/SOPs, cont'd

Table D-1. Industrial Facility BMP List

BMP_ID	Description	Detailed Procedure
V2	Maintain SPCC training, reporting.	Verify that the SPCC Plan is on site and employees are trained in its use. Implement the SPCC plan. Notify CES/CEIE (731-6155, 731-7148) (or call Malmstrom 911 if after hours) immediately regarding any POL spills. See §2.2.2 for more information.
V3	Implement effective SPCC procedures: drip pans, rags, spill kits. No signs of spills allowed	Use cleanup rags, drip mats, drip pans under portable or stationary engine-powered equipment (operable or inoperable) stored outdoors to control POL, antifreeze, fluid, or other leaks. Inspect drip pans at least quarterly and dispose of collected rainwater or snow melt according to the SPCC Plan.
V4	Install containment under leaking operable or inoperable machines, equipment stored outdoors	Install and maintain portable Petroleum, Oil, or Lubricant (POL) containment under generators or similar skid- or wheel-mounted engine-powered equipment stored outdoors.
V5	Ensure proper recordkeeping for drip pan or containment discharges	Maintain drip pan or portable secondary containment inspection and discharge logs for the current and previous 3 calendar years. Use the procedures outlined in the SPCC Plan.
V6	Follow detailed procedures to prevent hydraulic oil leaks	Use these procedures to prevent oil leaks while connecting, disconnecting, or storing hydraulic equipment outdoors: 1. For tractor implements, cylinders, motors, etc. equipped with male and female quick-connect fittings: • Disconnect the implement from the tractor and connect the male and female fittings to each other. • If the fittings don't match, install a positive-seal, leak-proof cap or plug onto the quick-connect fitting. Monitor the fitting for drips or leakage. 2. For hydraulic equipment, cylinders, motors, hoses, etc. without quick-connect fittings: • Disconnect the fitting and drain the equipment, hose, etc. into a portable waste container. Dispose of the waste oil per the SPCC Plan. • Install a leak-proof cap, plug, etc. onto the equipment port(s), hose end(s), or other potential leakage points. Temporary measures such as duct tape are not acceptable. • Use rags, towels, floor dry, or other controls to pick up all drips and spills. Monitor all fittings for leaks or drips. 3. For hydraulic equipment with broken fittings or hoses: • Outdoor storage is prohibited. • Remove and dispose of the broken component or store it indoors. • Install leak-proof caps, plugs, etc. on the remaining parts, cylinder ports, etc. Monitor for leaks or drips.
V7	Control equipment washdown water, sediment on pavements, etc.	All vehicle washing will occur at designated wash racks. The SWPPP Administrator may designate special equipment cleaning areas if effective pollution prevention and control measures are in place. Suggestions for cleaning muddy earth-moving or other equipment: • Prevent track-off from job sites. Manually remove mud or other debris from tractor treads, buckets, implements, etc. prior to leaving the site if possible. • Immediately perform street sweeping or other cleaning operations if trackoff occurs • Park the implement on pavement until the mud dries enough to remove it with spades, spud bars, etc. Move the equipment and clean the pavement with power sweepers or other means.
V8	Zero evidence of new or aged leaks from junk vehicles or equipment	Inspect junk equipment stored outdoors at least quarterly and remove leaking components. Store leaking or contaminated components indoors. Promptly clean up all spills or contamination. Document all corrective actions on the Routine Facility Inspection form and maintain these records for 3 CY.

Attachment 2: Malmstrom Storm Water Management Plan (SWMP)