

Year 1 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: May 1, 2018-June 30, 2019

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Fax Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address and an explanation of why it is not posted on the web:

Part II: Self Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4.

<u>Impairment(s)</u>				
	<input checked="" type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Solids			
<u>TMDL(s)</u>				
<i>Out State</i>	<input checked="" type="checkbox"/> Long Island Sound - Nitrogen	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				Clear Impairments and TMDLs

Next, check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.

Year 1 Requirements

- Develop and begin public education and outreach program [For details, see MCM 1 Public Education later in this document.](#)
- Identify and develop inventory of all known locations where SSOs have discharged to the MS4 in the last 5 years [For details, see MCM 3 IDDE later in this document.](#)
 - The SSO inventory is attached to the email submission
 - The SSO inventory can be found at the following website:

<https://www.westover.afrc.af.mil/About-Us/Resources/Environmental-and-Noise/>

Develop written IDDE plan including a procedure for screening and sampling outfalls ([Written IDDE procedures are due 30 June 2022; Westover has not yet completed this task.](#))

IDDE ordinance complete.
[Being a non-traditional MS4 who does not have the power to create ordinances or city laws, the MS4 Permit allows Westover to develop local policies and procedures in lieu of ‘ordinances’. An Air Force Instruction \(AFI\) is a documented instruction for members of the Air Force intended for use by active duty, guard, and reserve members and associated civilians. Westover has an existing AFI called 32-1067 Water and Fuel Systems which requires an IDDE program. Chapter 4.3.1.4. states “Air Force installations shall conduct cross-connections and illicit discharge inspections/ elimination/ construction/ repair.”](#)

- Identify each outfall and interconnection discharging from MS4, classify into the relevant category, and priority **rank** each catchment for investigation
 - The priority ranking of outfalls/interconnections is attached to the email submission
 - The priority ranking of outfalls/interconnections can be found at the following website:

<https://www.westover.afrc.af.mil/About-Us/Resources/Environmental-and-Noise/>

The current ranking results are: seven (7) High Priority outfalls; one (1) Low Priority outfall; zero (0)

Problems outfalls; zero (0) Excluded outfalls. The aforementioned seven outfalls were deemed 'high' priority only due to the discharge to the Chicopee State Park Beach. If it were not for the discharge to a Recreational Facility, the outfalls would have been classified as 'low' priority according to the Permit-provided formula for ranking.

- Construction/ Erosion and Sediment Control (ESC) ordinance complete
- Develop written procedures for site inspections and enforcement of sediment and erosion control measures
- Develop written procedures for site plan review
- Keep a log of catch basins cleaned or inspected [The BOS contractor's routine reports, called Contract Deliverables, containing catch basin cleaning details and inspection results will serve as the permit-required "log" stipulated in 2.3.7.a.iii.2.]
- Complete inspection of all stormwater treatment structures

Annual Requirements

- Annual opportunity for public participation in review and implementation of SWMP
- Comply with State Public Notice requirements
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- All curbed roadways have been swept a minimum of one time per year

Bacteria/ Pathogens

Annual Requirements (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

*Public Education and Outreach**

- Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate [For details, see summary block on Pet Waste in the Public Education section of this report.]
- Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time [For details, see summary block on Pet Waste in the Public Education section of this report.]
- Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria [For details, see summary block on Septic Systems in the Public Education section of this report.]

* Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)

Chloride [N/A to Westover]

Annual Requirements

Public Education and Outreach

- Include an annual message in November/ December to private road salt applicators and commercial industrial site owners on the proper storage and application rates of winter deicing material, along with the steps that can be taken to minimize salt use and protect local waterbodies

NitrogenAnnual Requirements (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)*Public Education and Outreach**

- Distribute an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers [For details, see summary block on Lawn Care in the Public Education section of this report.]
- Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate [For details, see summary block on Pet Waste in the Public Education section of this report.]
- Distribute an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter [For details, see summary block on Lawn Care in the Public Education section of this report.]

* *Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall) [Long-term Base Operating Service Contractors sweep all roads and parking lots a minimum of one time per month and sweep the portions of the airport airfield daily.]

Potential structural BMPs

Any structural BMPs listed in Table 3 of Attachment 1 to Appendix H already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the

- nitrogen removal by the BMP consistent with Attachment 1 to Appendix H. Document the BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated nitrogen removed in mass per year by the BMP in each annual report [Per Permit Part 1.10.3, deadlines in Appendix H are extended by two (2) years. The tracking must be completed in 2020 and then updated annually thereafter.]

Phosphorus [N/A to Westover]Annual Requirements (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)*Public Education and Outreach**

- Distribute an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release and phosphorus-free fertilizers
- Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Distribute an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

* *Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

Potential structural BMPs

Any structural BMPs listed in Attachment 3 to Appendix F already existing or installed in the regulated

- area by the permittee or its agents shall be tracked and the permittee shall estimate the phosphorus removal by the BMP consistent with Attachment 1 to Appendix H. Document the BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in mass per year by the BMP in each each annual report

Solids, Oil and Grease (Hydrocarbons), or Metals

Annual Requirements

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Increase street sweeping frequency of all municipal owned streets and parking lots to a schedule to target areas with potential for high pollutant loads [Because Westover ARB already employs higher frequencies than what is required by Part 2.3.7, this requirement to increase sweeping at higher pollutant load areas is fulfilled.]

- Prioritize inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Clean catch basins more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings [For details, see the summary block on Catch Basins in the Good Housekeeping section of this report.]

Charles River Watershed Phosphorus TMDL [N/A to Westover]

- Begin Phase 1 Phosphorus Control Plan (PCP)

Lake and Pond Phosphorus TMDL [N/A to Westover]

- Begin Phase 1 Lake Phosphorus Control Plan (LPCP)

Use the box below to input additional details on any unchecked boxes above or any additional information you would like to share as part of your self assessment:

Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

Yes No

If yes, describe below, including any relevant impairments or TMDLs:

Part IV: Minimum Control Measures

Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.

MCM1: Public Education

Number of educational messages completed during the reporting period: **0**

Westover has created a Non-traditional MS4 Education Program by selecting the responsible office, target audiences, and message topics. Westover will distribute one message within the 6-yr term of 2017-2023; since this message has not been issued yet, Permittee did not check the box within this document under “Year 1 Requirements”.

Unlike a traditional MS4, Westover does not have residences (i.e., Military Family Housing), and thus there is no residential lawn maintenance (Westover manages its land as documented in the Westover Integrated Natural Resources Management Plan and Vegetative Management Plan.).

As shown in below summary blocks, the first BMP is intended for the education of industrial users which, at Westover, includes employees, tenants, and contractors. Westover houses many shops that are industrial in nature. The remaining blocks are included here to display the reason other potential audiences do not need additional education messages.

Below, report on the educational messages completed during the first year. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

In the NOI, educational messages were proposed to be issued to Developers and Construction Contractors, however after further evaluation, it was deemed not necessary. Please see the below summary block pertaining to Developers.

Add an Educational Message

BMP 1: Industrial Users (including Employees & Tenants & Contractors)	MCM: Public Education Message
Permit Citation: 2016 Final Permit Part 2.3.2 as modified by Part 1.10.3 for new permittees and Part 5.1.1 for non-traditional MS4s.	
<p>Description: The Base Environmental Office (439 MS/CEV) will distribute a message via email or other means to any Base organization (including employees, tenants, and contractors) to discuss the following TOPICS based upon ongoing industrial activities at Westover:</p> <ul style="list-style-type: none"> • auto repair, auto washing • salt or other de-icing and anti-icing materials (minimize their use) and the storage thereof (cover/prevent runoff to storm system and contamination to ground water) • storage of potential pollution-generating materials (emphasize pollution prevention) • management of waste materials and dumpsters (cover and pollution prevention) • management of parking lot surfaces (sweeping) 	

<p>Existing training already takes place under the Multi Sector General Permit, whereby Environmental Staff gives an annual presentation on stormwater pollution prevention to users who might affect stormwater.</p> <p>In the future additional stormwater pollution prevention topics can be incorporated into the education program.</p>
<p>Targeted Audience: Base organizations that engage in the Industrial activities as listed in MS4 Permit Section 2.3.2.d</p>
<p>Responsible Department: Base Environmental Office (439 MS/CEV)</p>
<p>Measurable Goal and Deadline:</p> <p><input type="checkbox"/> Distribute one message within the 6-yr term of 2017-2023.</p>
<p>Documentation: The message will be attached to this plan (Appendix F) and to the Annual Report for the reporting year in which it occurred.</p>

<p>Education Message **NOT NEEDED**</p> <p>Developers</p>	<p>MCM: Public Education</p>
<p>Permit Citation: 2016 Final Permit Part 2.3.2 as modified by Part 1.10.3.a for new permittees and Part 5.1.1 for non-traditional MS4s.</p>	
<p>Description: In a typical MS4, developers may be contracted by anyone all across the town, however Westover is a non-traditional MS4 and the Base Civil Engineer, through the procurement mechanisms of the Contracting Office, is the only entity who can enter into agreements with architects, engineers, and construction developers. The Base Civil Engineer can only direct developers by way of contracts. Contracts are the administrative vehicle to provide directives to developers on the topics of: proper sediment and erosion control management practices; information about LID principles and technologies; information about EPA’s construction general permit (CGP); and information about the EPA Construction General Permit. Since education and instruction is carried out by way of contracts, design meetings, pre-construction meetings, and construction meetings, the Base will not need to issue additional messages to Developers.</p> <p>Education can also be a part of BMP 4 Written Procedures for Reviewing Design & Site Plans and BMP 5 Develop Policy to Enact Design Requirements for Runoff Management in New Development/ Redevelopment Project.</p>	
<p>Status: As explained above, issuance of additional education messages to Developers is not needed.</p>	

<p>Education Message **NOT NEEDED**</p> <p>Appendix F Message on Lawn Care, Pet Waste, & Fertilizers</p>	<p>MCM: Public Education</p>
<p>Permit Citation: 2016 Final Permit Appendix F Part B.I.1.a.i.1. Part 1.10.3.b extends the deadline by 2 years.</p>	
<p>Description:</p> <p>Appendix F requires additional public education, namely the distribution of two (2) annual messages regarding pet waste, disposal of grass clippings, use of slow-release fertilizers, and disposal of leaf litter. The Permit states that the requirement kicks in in 2020, however Westover’s handling of grass clippings and leaf litter does not warrant additional education.</p>	

At Westover, the Base Civil Engineer is the single authority for making decisions on disposal methods and fertilizer selection, and the BOS Contractor is the single workforce. The BOS Contractor is allowed to carry out lawn care and fertilizer application only under specific terms of the contract. Westover does not dispose of grass clippings or leaf litter. Cut grass is left in place and leaf litter is collected, piled, and physically turned by the BOS Contractor. Any changes to lawn care and land management is manifested through contract modifications. The contractor’s lawn care performance is monitored through government officials called QAEs (quality assurance evaluator). Instructions for the contractor can only be communicated through the QAEs and Base Contracting Officer.

Base Policy prevents the allowance of pets into the workplace during business hours. Westover does not have on-Base Family Housing, thereby also making the population of pets on base negligible. Westover is a secure Federal facility where the public (and their pets) without authorization can not enter.

Status: As explained above, additional education regarding grass clippings/pet waste/leaf litter is not needed.

<p>Education Message **NOT NEEDED**</p> <p>Appendix H Message on Septic System Maintenance</p>	<p>MCM: Public Education</p>
<p>Permit Citation: 2016 Final Permit Appendix H Part III.2.a.i. Part 1.10.3.a extends the deadline by 2 years. “All deadlines for discharges to water quality limited waters without a TMDL under part 2.2.2 shall be extended by two (2) years.”</p>	
<p>Description: Appendix H requires additional public education, namely the distribution of one (1) annual message regarding septic system maintenance. This requirement commences in 2020, however Westover’s operation and maintenance of septic systems does not warrant additional education. At Westover, the Federal Government is the sole owner of a known quantity of septic systems on Base. The Base Civil Engineer implements the requirements of State septic system regulations called “Title V” by incorporating the directive in our long-term BOS contract. Any changes to septic tank operation and maintenance is manifested through contract modifications. The contractor’s lawn care performance is monitored through government officials called QAEs (quality assurance evaluator). Instructions for the contractor can only be communicated through the QAEs and Base Contracting Officer.</p>	
<p>Status: As explained above, additional education regarding septic system maintenance is not needed.</p>	

MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) during the reporting period:

The SWMP has been given to the Office of Public Affairs and posted on Westover’s internet site.

Was this opportunity different than what was proposed in your NOI? Yes No

Storm Water Manager did not realize that posting the SWMP on the internet could become an opportunity for public participation in review of SWMP.

Describe any other public involvement or participation opportunities conducted during the reporting period:

None during this reporting period.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Below, report on the number of SSOs identified in the MS4 system and removed during this reporting period.

Number of SSOs identified:

Number of SSOs removed:

Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified since 2013.

Total number of SSOs identified:

Total number of SSOs removed:

MS4 System Mapping

Describe the status of your MS4 map, including any progress made during the reporting period:

Phase I Description: Map 100% of outfalls and receiving waters, open channel conveyances, interconnections with other MS4s and other storm sewer systems, municipally-owned stormwater treatment structures, waterbodies identified by name and indication of all use impairments, and catchment delineations.

STATUS: Phase I Mapping due by 30 June 2023. **This has been completed.**

Phase II Description: Map 100% of outfall spatial locations, pipes, manholes, catch basins, refined catchment delineations, municipal sanitary sewer system (if available), and municipal combined sewer system (if applicable). Phase II mapping will include results of any catchment investigations performed as part of BMP 3d.

STATUS: We have spatial locations, pipes, manholes, catch basins, but still need to update Phase II Mapping upon completion of any catchment investigations and complete by 30 June 2031.

Screening of Outfalls/Interconnections

If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses.

- The outfall screening data is attached to the email submission
- The outfall screening data can be found at the following website:

Below, report on the number of outfalls/interconnections screened during this reporting period.

Number of outfalls screened: **0**

Below, report on the percent of total outfalls/ interconnections screened to date.

Percent of total outfalls screened: **0**

For new Permittee, written procedures for Dry Weather Screening is due June 2022 and the subsequent screening of outfalls/interconnections must be completed by June 2024. To date, Westover has not completed MS4 dry weather screening.

Please note Westover's NPDES background. Westover has been monitoring our outfalls and industrial activity areas since 2000 when EPA granted coverage under the MSGP for all of our outfalls. MSGP monitoring program has morphed over time. In 2000 chemical analysis of stormwater samples was conducted due to Westover being part of the Airport Sector, but now monitoring consists only of visual monitoring. MSGP visual monitoring from 2000-present took place during both wet and dry weather occasions.

MS4 Permit Part 2.3.4.7.b.iii requires screening records to include: receiving water, date of most recent inspection, dimensions, shape, material (concrete, PVC), spatial location, physical condition. During engineering project carried out by CH2Mhill, physical characteristics for most of our stormwater conveyance system were ascertained.

Catchment Investigations

If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.

- The catchment investigation data is attached to the email submission
- The catchment investigation data can be found at the following website:

Below, report on the number of catchment investigations completed during this reporting period.

Number of catchment investigations completed this reporting period:

Below, report on the percent of catchments investigated to date.

Percent of total catchments investigated:

Optional: Provide any additional information for clarity regarding the catchment investigations below:

Zero "problem" outfalls identified during the initial ranking.
 Per permit deadlines, Catchment Investigations of High and Low Priority Outfalls must be completed by 30 June 2031. Written catchment investigation procedures are due 30 June 2022; Westover has not yet completed this task.
 Manhole inspection methodology should include an investigation of each key junction manhole within the MS4, even where no evidence of an illicit discharge is observed at the outfall. Conduct investigations on all catchments even if flow direction is known. Note that this is for KEY junction manholes and that definition is left up to the permit holder as long as the design of the program does not limit the ability to locate illicit connections. Since Westover has a good understanding of the assets, we will be able to identify the required manholes for inspection and will not need to open over a great number of manholes.

IDDE Progress

If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.

- The illicit discharge removal report is attached to the email submission

The illicit discharge removal report can be found at the following website:

Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed *during this reporting period*.

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed: N/A

Below, report on the *total* number of illicit discharges identified and removed *to date*. At a minimum, report on the number of illicit discharges identified and removed *since the effective date of the permit*.

Total number of illicit discharges identified:

Total number of illicit discharges removed:

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

Westover has had zero incidences of sanitary sewer overflows. Westover does not have any sanitary sewer appurtenances allowing flow into stormwater outfalls or stormwater appurtenances. The only illicit connection the Base has is rainwater possibly entering the sanitary sewer system at Hangars 1, 3, 5, 7, and/or 9. Apart from aforementioned Hangar roof drains potentially discharging to the sanitary system, Westover does not have any connections between our sanitary and storm lines.

Employee Training

Describe the frequency and type of employee training conducted during the reporting period:

BMP 3e: Employee Training	MCM: IDDE
Permit Citation: 2016 Final Permit Part 2.3.4.11	
Description: The Base Environmental Office (439 MS/CEV) will perform IDDE program training, including how to recognize illicit discharges and SSOs.	
Targeted Audience: Employees with IDDE Program responsibilities.	
Responsible Department: Base Environmental Office (439 MS/CEV)	
Measurable Goal and Deadline: <input type="checkbox"/> Perform annual training to all applicable employees. The Part 1.10.3 deadline extension pertains to training as well. Develop IDDE Program written procedures (and training) by 30 June 2022 (within 4 years of permit effective date).	
Documentation: The training will be attached to the SWMP (Appendix J) and to the Annual Reports.	

MCM4: Construction Site Stormwater Runoff Control

Below, report on the construction site plan reviews, inspections, and enforcement actions completed during this reporting period.

Number of site plan reviews completed:

2

New ISO Hangar Project managed by Army Corps of Engineers (greater than 1 acre)
 New Indoor Firing Range Project managed by Army Corps of Engineers (greater than 1 acre)

Number of inspections completed:

0

Construction has not yet begun.

Number of enforcement actions taken:

0

BMP 4b: Written Procedures for Inspections by Government Officials	MCM: Construction Sites
Description: ETL 14-1 Construction and Operation and Maintenance Guidance for Storm Water Systems provides procedures and checklists for all construction sediment and erosion control inspections.	
Responsible Department: Base Civil Engineer	
Measurable Goals and Deadlines: <input checked="" type="checkbox"/> Develop written procedures for site inspections and enforcement of sediment and erosion control measures by 30 June 2021 (within 3 years of permit effective date). <i>ETL 14-1 is in effect at Westover ARB and this requirement is fully satisfied.</i>	
Documentation/Location: The latest version of ETL 14-1 is located at the following web address: https://www.wbdg.org/ffc/af-afcec/engineering-technical-letters-afetl/etl-14-1	

BMP 4c: Written Procedures for Reviewing Design & Site Plans	MCM: Construction Sites
Description: AFI 32-1023 Designing and Constructing Military Construction Projects Chapter 2.3.2 requires a comprehensive design and review process for all construction projects at Westover ARB. This process includes reviews by the designated Design Agent, Design Manager, Base Civil Engineer, and Major Command. The Base Civil Engineer ensures compliance with relevant environmental permits, including NPDES CGP and the 2016 Final Permit. ETL 14-1 provides design guidance for erosion and sediment controls.	
Responsible Department: Base Civil Engineer	
Measurable Goals and Deadlines: <input checked="" type="checkbox"/> Develop Site Plan Review written procedures by 30 June 2021. <i>AFI32-1023 is in effect at Westover ARB and this requirement is fully satisfied.</i>	
Documentation/Location: The latest version of AFI32-1023 is located at the following web address: https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1023/afi32-1023.pdf	

MCM5: Post-Construction Stormwater Management in New Development and

Redevelopment

Ordinance Development

Describe the status of the post-construction ordinance required to be complete in year 2 of the permit term:

Please see below. Each summary block has sections called ‘Description and Measurable Goal/Deadline’ where BMP status is provided.

BMP 5b: Develop Policy to Enact Design Requirements for Runoff Management in New Development/ Redevelopment Project – For sites that disturb 1 acre or more	MCM: POST Construction Stormwater Management
<p>Description: The Base’s design requirements must be at least as stringent as the MA Handbook Standards that are specifically called out in Permit Part 2.3.6.a.ii.</p> <p>For applicable projects that are one acre or more, the Base will implement a program to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Address nitrogen removal BMP requirements of Appendix F Part B.I.1.a.i.2 <input checked="" type="checkbox"/> Use LID site planning and design strategies to the greatest feasible extent. Reference existing guidance - Unified Facility Criteria 3-210-10 Low Impact Development. <input type="checkbox"/> Address post construction runoff that meets the retention and treatment requirements of Part 2.3.6.a.ii.3 and Part 2.3.6.a.ii.4. SWMP will include comparison of MA Handbook Standards with EISA/UFC.) EISA 438 is the written authority for federal development and redevelopment projects that include both aspects of being a “building” development and also has a footprint that exceeds 5,000 square feet. EISA 438 requires the design to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow. However EISA differs from the MS4, in that MS4 runoff management requirement applies to a broader category of any land disturbance greater than one acre resulting from development/ redevelopments, whereas EISA applies to only “buildings”. <p>ETL 14 – 1 Chapter 5.2.2 provides limited guidance on EISA 438.</p> <p>EPA has developed a guidance document that is appropriate for Westover to adhere to, namely the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act (PDF).</p>	
<p>Responsible Department: Base Civil Engineer</p>	
<p>Measurable Goal and Deadline:</p> <p><input type="checkbox"/> Develop a written policy by 30 June 2021.</p>	
<p>Documentation/Location:</p> <p>Reference to the written policy will be included here once the policy is developed.</p> <p>EISA 438 can be found at the following web address: https://www.epa.gov/nps/stormwater-management-federal-facilities-under-section-438-energy-independence-and-security-act</p> <p>EPA’s EISA guidance document can be found at the following website: https://www.epa.gov/sites/production/files/2015-09/documents/eisa-438.pdf</p>	

As-built Drawings

Describe the status of the measures the MS4 has utilized to require the submission of as-built drawings and ensure long term operation and maintenance of completed construction sites required to be complete in year 2 of the permit term:

BMP 5c: Written Procedures for As-built Drawing Submittals & Long Term O&M (For sites that disturb 1 acre or more)	MCM: POST Construction Stormwater Management
<p>Description:</p> <p>The Base will implement a program for:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Submission of as-built drawings no later than two (2) years after completion of construction projects <ul style="list-style-type: none"> • AFI 32-1023 Designing and Constructing Military Construction Projects Chapter 2.3.2 requires a comprehensive design and review process for all construction projects at Westover ARB. This process includes reviews by the designated Design Agent, Design Manager, Base Civil Engineer, and Major Command. <input checked="" type="checkbox"/> Long-term operation and maintenance of stormwater management structures <ul style="list-style-type: none"> • Written procedures for long-term O&M of stormwater management structures already exist and take the form of the existing scope of work of the BOS contract. Refer to Tab F of the Base Operating Service (BOS) contract. • ETL 14-1 Construction and Operation and Maintenance Guidance for Storm Water Systems. 	
<p>Responsible Department: Base Civil Engineer</p>	
<p>Measurable Goal and Deadline:</p> <p><input checked="" type="checkbox"/> Develop a written procedure by 30 June 2021. BOS contract execution of stormwater treatment structure O&M and AFI 32-1023's policy for As-Build Submittals are both already in effect.</p>	
<p>Documentation/Location:</p> <p>The latest version of AFI32-1023 is located at the following web address: https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1023/afi32-1023.pdf</p> <p>The latest version of ETL 14-1 is located at the following web address: https://www.wbdg.org/ffc/af-afcec/engineering-technical-letters-afetl/etl-14-1</p> <p><u>Due to "For Official Use Only" concerns, a copy of the BOS contract will not be posted on the internet, rather, a copy will be provided to EPA via email and/or mail.</u></p>	

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

BMP 5d: Report Assessing Street Design and Parking Lot Guidelines	MCM: Post Construction Stormwater Management
<p>Description: A brief evaluation of current street and parking lot design guidelines is presented below to evaluate the potential of changing these guidelines to support the use of LID technologies.</p>	
<p>Responsible Department: Base Environmental Office (439 MS/CEV)</p>	
<p>Measurable Goals and Deadlines: <input checked="" type="checkbox"/> Write report assessing current street and parking lot design guidelines by 30 June 2024. <i>This has been completed, see documentation section below.</i></p>	
<p>Documentation/Location: Street and parking lot designs on Air Force facilities are required to follow Unified Facilities Criteria (UFC) 3-250-01 Pavement Design for Roads and Parking Areas and UFC 3-210-10 Low Impact Development. These UFCs aim to maintain pre-development hydrology through the use of LID techniques where feasible. For instance, UFC 3-210-10 specifically requires consideration of bioretention areas, permeable pavements, cisterns, and green roofs. LID technologies are evaluated based on their cost effectiveness and ability to keep post-construction discharges and volumes lower than pre-construction discharges and volumes. Therefore, Westover ARB determines that no changes to these regulations are required.</p> <p>The latest versions of UFC 3-250-01 and UFC 3-210-10 are available at the following web addresses: https://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc/ufc-3-250-01 https://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc/ufc-3-210-10</p>	

Green Infrastructure Report

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

[This report is not applicable to non-traditional permittees \(Permit Part 5.1.3\).](#)

Retrofit Properties Inventory

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

BMP 5c: List of Retrofit Opportunities	MCM: Post Construction Stormwater Management
<p>Description: A list of five permittee-owned properties that could potentially be modified with BMPs designed to reduce the frequency, volume, or pollutant loads of stormwater discharges to the MS4. Properties and infrastructure for consideration shall include those with the potential for impervious area reduction and nitrogen runoff reduction.</p>	
<p>Responsible Department: Base Environmental Office (439 MS/CEV)</p>	
<p>Measurable Goal and Deadline: <input type="checkbox"/> Compile a list of five potential retrofit opportunities by 30 June 2024.</p>	

Documentation/Location:

The list will be attached to this plan (Appendix K) and to the appropriate Annual Reports.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

Please see below. Each summary block has sections called ‘Description and Measurable Goal/Deadline’ where BMP status is provided.

BMP 6d: Catch Basin Cleaning Program	MCM: Written Procedures for O&M of Catch Basins to Minimize Sediment Discharge and Achieve Good Housekeeping / P2
<p>Permit Citation: 2016 Final Permit Part 2.3.7.a.iii.2 as modified by Appendix H Part V.2.ii for solids impaired receiving waters.</p> <p>Part 2.3.7.a.iii.2 states: The permittee shall keep a log of catch basins cleaned or inspected. The permittee shall report in each annual report the total number of catch basins, number inspected, number cleaned, and the total volume or mass of material removed from all catch basins.</p>	
<p>Description: Procedures for operation and maintenance of stormwater infrastructure are already established at Westover ARB. This program is documented by ETL 14-1 Construction and Operation and Maintenance Guidance for Storm Water Systems and enforced by AFI32-1067. Westover ARB has a catch basin cleaning program authorized by AFI32-1067 and ETL 14-1 and implemented under the BOS contract, Tab F, Real Property Maintenance (F5.25.3). All manholes and catch basins are inspected and evaluated for structural integrity and the presence of debris. All debris, including dirt, leaves, and sediment, are removed at the time of inspection, which occurs on each catch basin and manhole annually. The BOS contractor prepares a report summarizing these activities and provides inspection results to Westover ARB staff.</p>	
<p>Responsible Department: Monitored by the Base Civil Engineer and implemented by the BOS contractor.</p>	
<p>Measurable Goal and Deadline:</p> <p><input checked="" type="checkbox"/> Develop a catch basin cleaning program. <i>This program is in effect at Westover ARB and this requirement is fully satisfied.</i></p> <p>(Written O&M procedures originally due within 2 yrs of permit effective date, then Part 1.10.3 extended the deadline by 2 years, thus changing due date to 2022; nonetheless written procedure has been completed as mentioned above.)</p>	
<p>Documentation/Location:</p> <p>The latest version of AFI32-1067 is located at the following web address: https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1067/afi32-1067.pdf</p> <p>The latest version of ETL 14-1 is located at the following web address: https://www.wbdg.org/ffc/af-afcec/engineering-technical-letters-afetl/etl-14-1</p> <p>The specific contract mechanism for catch basin cleaning is contained in the BOS Contract, Tab F, Section F5.25.</p>	

If complete, attach the catch basin cleaning optimization plan or the schedule to gather information to develop the optimization plan:

A requirement of the MS4 Permit is the optimization of inspections and cleanings in order to:

- Prioritize attention on Catch Basin structures in construction zones. At Westover, the construction contractor as overseen by the construction management agency (e.g. Army Corps of Engineers, etc.) is responsible for protecting storm drains from potential pollutants stemming from construction activities. Storm drain protection and any needed corrective action is part of the construction contract specs or scope of work. The MS4-required optimization effort within construction zones is achieved through our project design and construction procedures, which are discussed in further detail in this SWMP in the construction BMP chapter and post-construction BMP chapter.
- Ensure no catch basin is 50% full of sediments. At Westover, the BOS contractor is tasked with cleaning the catch basins. BOS Contract, Tab F5.25 Storm Drainage states “Annually the KTR shall inspect and document all storm drain catch basins for structural integrity (e.g. loose brick), concrete or catch basin inlets, presence of debris. The KTR shall remove all debris such as leaves, dirt or other sediment at time of inspection. The KTR shall prepare and submit a report of the inspection findings to the BCE. ”

The catch basin cleaning optimization plan or schedule is attached to the email submission. Both plans to focus on catch basin in construction zones so that they are a priority and also the plan to ensure catch basins are not 50% full of sediment are already being implemented. See above paragraph for the procedures put in place to optimize catch basin cleaning. The BOS contractor prepares a report summarizing their activities and provides inspection results.

The catch basin cleaning optimization plan or schedule can be found at the following website:

Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins during this reporting period.

Number of catch basins inspected:

Number of catch basins cleaned:

Total volume or mass of material removed from all catch basins:

Below, report on the total number of catch basins in the MS4 system, if known.

Total number of catch basins:

If applicable:

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

Street Sweeping

Describe the status of the written procedures for sweeping streets and municipal-owned lots:

BMP 6f: Street and Parking Lot Sweeping Program	MCM: Written Procedures for Street Sweeping to Minimize Sediment Discharge and Achieve Good Housekeeping / P2
<p>Description: Westover ARB has a street and parking lot cleaning program as required by AFI32-1067 and ETL 14-1 and implemented through the BOS contract, Tab F, Real Property Maintenance (F6.3.7). Under the BOS contract, the BOS contractor is required to sweep all roads and parking lots once per month. The contractor is required to document areas swept daily throughout the month. Sweeping is required to clean pavement of all dirt, debris, and foreign matter. The BOS contractor prepares a report summarizing these activities and includes inspection results to Westover ARB staff.</p> <p>For reference, the following are excerpts from the BOS contract:</p> <p style="padding-left: 40px;">F6.3 Pavement Maintenance. This subsection includes the maintenance or repairs of all pavements (airfield, roads, parking lots, sidewalks and dikes), and airfield pavement sweeping. The contractor (KTR) shall check all Air Force-owned airfield pavements (runway, taxiways, ramps and aprons) daily for FOD and shall sweep 20% of the airfield pavement each day. The KTR shall arrange his daily sweeping so that all airfield pavements are swept no less than once a month. All aircraft parking mooring points and static ground points shall be clean and free of FOD. The KTR shall document each area swept daily throughout the month. Additional airfield pavement sweeping requirements, above the 20% each day, will be ordered under the Labor for Service Call CLIN of the contract. (See contract section F-TE-1, SDSF27 and reference F-TE-7 for maps)</p> <p style="padding-left: 40px;">F6.3.7 Roads and Parking Lots Sweeping: The KTR shall sweep all roads and parking lots a minimum of one time per month. The KTR shall document each area swept daily throughout the month. After sweeping, pavements and curbs shall be free of dirt, debris, and foreign matter. (See contract section F-TE-1, SDSF28)</p>	
<p>Responsible Department: Monitored by the Base Civil Engineer and implemented by the BOS contractor.</p>	
<p>Measurable Goal and Deadline:</p> <p><input checked="" type="checkbox"/> Develop a street and parking lot sweeping program. <i>This program is in effect at Westover ARB and this requirement is fully satisfied.</i></p>	
<p>Documentation/Location:</p> <p>The latest version of AFI32-1067 is located at the following web address: https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1067/afi32-1067.pdf</p> <p>The latest version of ETL 14-1 is located at the following web address: https://www.wbdg.org/ffc/af-afcec/engineering-technical-letters-afetl/etl-14-1</p> <p>The specific contract mechanism for catch basin cleaning is contained in the BOS Contract, Tab F, Section F6.3.7.</p>	

Report on street sweeping completed during the reporting period using **one** of the three metrics below.

☉ Number of miles square feet cleaned:

Base Proper: 5,176,881 sq ft per month (minimum), resulting in 62 million sq ft swept within 12 months. Airfield: minimum of 12,656,477 sq ft daily, resulting in 4.6 billion sq ft swept within 12 months.

- Volume of material removed: [UNITS]
- Weight of material removed: [UNITS]

If applicable:

For rural uncurbed roadways with no catch basins, describe the progress of the inspection, documentation, and targeted sweeping plan:

Winter Road Maintenance

Describe the status of the written procedures for winter road maintenance including the storage of salt and sand:

BMP 6g: Snow Plan / Winter Road Maintenance	MCM: Written Procedures for Winter Road Maintenance to Minimize Pollutant Discharge and Achieve Good Housekeeping / P2
Description: Westover ARB has a winter road maintenance program as required by AFI32-1002 Snow and Ice Control, documented by the Westover ARB Snow Plan, and implemented under BOS contract, Tab F, Real Property Maintenance (F6.3.5) . The specific policies, procedures, and responsibilities for the Winter Road Maintenance Program are contained in the Snow Plan.	
Responsible Department: Monitored by the Base Civil Engineer and implemented by the BOS contractor.	
Measurable Goal and Deadline: <input checked="" type="checkbox"/> Develop a winter road maintenance program. <i>This program is in effect at Westover ARB and this requirement is fully satisfied.</i>	
Documentation/Location: The latest version of AFI32-1002 is located at the following web address: https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1002/afi32-1002.pdf The specific contract mechanism for catch basin cleaning is contained in the BOS Contract, Tab F, Section F6.3.5. The Westover ARB Snow Plan is maintained by the Base Civil Engineer and is available for public review upon request.	

Inventory of Permittee-Owned Properties

Describe the status of the inventory, due in year 2 of the permit term, of permittee-owned properties, including parks and open spaces, buildings and facilities, and vehicles and equipment, and include any updates

Westover is supported by our Real Property Office that meticulously accounts for all of our buildings, facilities, parking lots, and many more assets. Our assets list has already been completed, and for the purposes of the MS4 Permit, it will be used to create a new list of areas and facilities listed in Permit Part 2.3.7.a.ii.

O&M Procedures for Parks and Open Spaces, Buildings and Facilities, and Vehicles and Equipment

Describe the status of the operation and maintenance procedures, due in year 2 of the permit term, of permittee-owned properties (parks and open spaces, buildings and facilities, vehicles and equipment) and include maintenance activities associated with each:

BMP 6a: Parks and Open Spaces	MCM: Written Procedures for O&M of Parks/Open Spaces to Achieve Good Housekeeping / P2
<p>Permit Citation: 2016 Final Permit Part 2.3.7.a.i as modified by Part 1.10.3.a for new permittees and Appendix F Part B.I.1.a.3 for Nitrogen TMDL Requirements. Written O&M procedures for parks and open spaces originally due within 2 yrs of permit effective date, then Part 1.10.3 extends deadline by 2 years, thus ultimately due 2022; nonetheless written procedures for open spaces has already by satisfied.</p>	
<p>Description: Operation and maintenance procedures for parks and open spaces, including an inventory of these areas, are already established at Westover ARB. These procedures are outlined by the Integrated Natural Resources Management Plan (Air Force Reserve Command 2016) and the Vegetation Management Plan (US Forest Service 2015). These plans require the protection of natural resources, including stormwater discharge, through the implementation of several good housekeeping BMPs. For instance, the Integrated Natural Resources Management Plan indicates that fertilizer use on Westover ARB is minimized to the maximum extent possible to protect water resources.</p>	
<p>Responsible Department: Monitored by the Base Civil Engineer and implemented by the Base Operations Support (BOS) contractor.</p>	
<p>Measurable Goal and Deadline:</p> <p><input checked="" type="checkbox"/> Develop written operation and maintenance procedures for parks and open spaces and an inventory of these areas by 30 June 2022 . <i>These procedures are contained in the reports referenced above and are enforced at Westover ARB. This requirement is satisfied.</i></p> <p><input type="checkbox"/> Within this BMP block, include the location of the written/digital inventory.</p>	
<p>Documentation/Location:</p> <p>The latest version of the Integrated Natural Resources Management Plan and the Vegetation Management Plan are maintained by the Base Environmental Office and are available for public review upon request.</p>	

BMP 6b: Buildings and Facilities	MCM: Written Procedures for O&M of Buildings to Achieve Good Housekeeping / P2
<p>Description: Operation and maintenance procedures for buildings and facilities where pollutants are exposed to stormwater, including an inventory of these areas, are already established at Westover ARB. Because Westover ARB is subject to the EPA MSGP, a site-wide SWPPP has been developed, is constantly updated, and includes good housekeeping and operation and maintenance requirements for areas where pollutants are exposed to stormwater. The SWPPP involves frequent inspections of these areas and requires compliance by facility operators. Westover ARB is also subject to the Oil Pollution Prevention Act which includes specific operation and maintenance requirements, the development of a Spill Prevention, Control, and Countermeasures (SPCC) Plan, and the development of a Facility Response Plan (FRP). These documents are enforced across Westover ARB.</p>	

Responsible Department: Base Civil Engineer
<p>Measurable Goal and Deadline:</p> <p><input checked="" type="checkbox"/> Develop a written operation and maintenance procedures and an inventory of buildings and facilities where pollutants are exposed to stormwater by 30 June 2022. <i>These procedures are contained in the reports referenced above and are enforced at Westover ARB. This requirement is satisfied.</i></p> <p><input type="checkbox"/> Within this BMP block, include the location of the written/digital inventory.</p>
<p>Documentation/Location:</p> <p>The latest version of the SWPPP, SPCC, and FRP are maintained by the Base Environmental Office and are available for public review upon request.</p>

BMP 6c: Vehicle and Equipment Storage	MCM: Written Procedures for O&M of Vehicle Storage Areas to Achieve Good Housekeeping / P2
<p>Description: Procedures for storage of vehicles and equipment, including an inventory of these areas, are already established at Westover ARB. Because Westover ARB is subject to the EPA MSGP, a site-wide SWPPP has been developed, is constantly updated, and includes good housekeeping and operation and maintenance requirements for areas where equipment is stored. The SWPPP involves frequent inspections of these areas and requires compliance by facility operators. Westover ARB is also subject to the Oil Pollution Prevention Act which includes specific operation and maintenance requirements, the development of a Spill Prevention, Control, and Countermeasures (SPCC) Plan, and the development of a Facility Response Plan (FRP). These documents are enforced across Westover ARB and fulfill all the SWPPP requirements in the MS4 Permit.</p>	
Responsible Department: Base Civil Engineer	
<p>Measurable Goal and Deadline:</p> <p><input checked="" type="checkbox"/> Develop a written operation and maintenance procedures and an inventory of buildings and facilities where pollutants are exposed to stormwater by 30 June 2022 . <i>These procedures are contained in the reports referenced above and are enforced at Westover ARB. This requirement is satisfied.</i></p> <p><input type="checkbox"/> Within this BMP block, include the location of the written/digital inventory.</p>	
<p>Documentation/Location:</p> <p>The latest version of the SWPPP, SPCC, and FRP are maintained by the Base Environmental Office and are available for public review upon request.</p>	

Stormwater Pollution Prevention Plan (SWPPP)

Describe the status of any SWPPP, due in year 2 of the permit term, for permittee-owned or operated facilities including maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater:

BMP 6h: Stormwater Pollution Prevention Plan	MCM: Good Housekeeping & Pollution Prevention
<p>Permit Citation: 2016 Final Permit Part 2.3.7.b stipulates the following: “The SWPPP is a separate and different document from the SWMP required in part 1.10. A SWPPP does not need to be developed for a facility if the permittee has either developed a</p>	

SWPPP or received a no exposure certification for the discharge under the Multi-Sector General Permit or the discharge is authorized under another NPDES permit.”
Description: Westover ARB as a whole is subject to the EPA MSGP and therefore maintains and annually updates a SWPPP.
Responsible Department: Base Environmental Office (439 MS/CEV)
Measurable Goal and Deadline: <input checked="" type="checkbox"/> Develop a SWPPP by 30 June 2022. <i>A SWPPP has been completed as required by the MSGP and is in full effect site-wide.</i>
Documentation/Location: The latest version of the SWPPP is maintained by the Base Environmental Office and is available for public review upon request.

Below, report on the number of site inspections for facilities that require a SWPPP completed during this reporting period.

Number of site inspections completed: 4 (quarterly RIAP inspections per MSGP)

Describe any corrective actions taken at a facility with a SWPPP:

N/A

O&M Procedures for Stormwater Treatment Structures

Describe the status of the written procedure for stormwater treatment structure maintenance:

BMP 6e: Swales, Detention Basins, Infiltration (treatment) Structures	MCM: Written Procedures for O&M of Treatment Structures to Minimize Sediment Discharge and Achieve Good Housekeeping / P2
<p>Description: Westover ARB maintains stormwater infrastructure in accordance with AFI32-1067 and ETL 14-1. Attachments 3 to 12 of ETL 14-1 provide maintenance procedures and inspection checklists for stormwater infrastructure. These procedures are implemented under the BOS contract Tab F, Real Property Maintenance (F5.25) which states: F5.25.6 Storm Water Detention Ponds and Spill Containment Ponds: The KTR shall inspect and maintain all storm water detention ponds and spill containment ponds monthly to include the following: clean trash from debris catchers and weirs, ensure inlet and outlet weirs are in good repair with water not leaking under concrete, exercise both inlet and outlet valves and leave fully open, clean openings and outlets free of debris, clean trash from all surface weirs and outlet structure overflows, and inspect ponds for silt buildup, erosion, woody vegetation and adequate drive access. Inspections for each pond shall be documented. A written report of findings and description of the O&M service performed shall be provided to Contractor’s Officer Representative and Westover Environmental Office within 5 days after the service is completed. All repairs will be ordered under the Labor for Service Call CLIN of the contract. (See F-TE-3, F39)</p>	
<p>Responsible Department: Monitored by the Base Civil Engineer and implemented by the BOS contractor.</p>	
<p>Measurable Goal and Deadline: <input checked="" type="checkbox"/> Develop a stormwater infrastructure inspection and maintenance program. <i>This program is in effect at Westover ARB and this requirement is fully satisfied.</i></p>	

Documentation/Location:

The latest version of AFI32-1067 is located at the following web address:

https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1067/afi32-1067.pdf

The latest version of ETL 14-1 is located at the following web address:

[https://www.wbdg.org/ffc/af-afcec/engineering-technical-letters-afetl/etl-14-1'](https://www.wbdg.org/ffc/af-afcec/engineering-technical-letters-afetl/etl-14-1)

The specific contract mechanism for catch basin cleaning is contained in the BOS Contract, Tab F, Section F5.25.

Monitoring or Study Results

Additional Information

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- Not applicable
- The results from additional reports or studies are attached to the email submission
- The results from additional reports or studies can be found at the following website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

Additional Information

Optional: Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

Activities Planned for Next Reporting Period

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 2 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Complete system mapping Phase I
- Begin investigations of catchments associated with Problem Outfalls
- Develop or modify an ordinance or other regulatory mechanism for post-construction stormwater runoff from new development and redevelopment
- Establish and implement written procedures to require the submission of as-built drawings no later than two years after the completion of construction projects
- Develop, if not already developed, written operations and maintenance procedures
- Develop an inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; review annually and update as necessary
- Establish a written program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained in a timely manner
- Develop and implement a written SWPPP for maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater
- Enclose or cover storage piles of salt or piles containing salt used for deicing or other purposes
- Develop, if not already developed, written procedures for sweeping streets and municipal-owned lots
- Develop, if not already developed, written procedures for winter road maintenance including storage of salt and sand
- Develop, if not already developed, a schedule for catch basin cleaning
- Develop, if not already developed, a written procedure for stormwater treatment structure maintenance

- Develop a written catchment investigation procedure (*18 months*)

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4 in the last 5 years
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all uncurbed streets at least annually

Provide any additional details on activities planned for permit year 2 below:

Part V: Certification of Small MS4 Annual Report 2019

40 CFR 144.32(d) Certification

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

Name: John B. Moriarty

Title: Chief, Environmental Engineering Flight

Signature:

 Revoked certificate

JOHN B. MORIARTY
Chief, Environmental Engineering
Signed by: MORIARTY.JOHN.B.1228530170

Date: 9/30/2019

[Signatory may be a duly authorized representative]

Note: When prompted during signing, save the document under a new file name.

Annual Report Submission

Please submit the form electronically via email to both EPA and MassDEP by clicking on one of the links below or using the email addresses listed below. Please ensure that all required attachments are included in the email and not attached to this PDF.

EPA: stormwater.reports@epa.gov

MassDEP: frederick.civian@mass.gov

Paper Signature:

If you did not sign electronically above, you can print the signature page by clicking the button below.

[Print Signature Page](#)

Optional: If you did not sign electronically above, you may lock the form by clicking the "Lock Form" button below which will prompt you to save the locked version of the form. Save this locked version under a new file name.

[Lock Form](#)