# Year 2 Annual Report

# Massachusetts Small MS4 General Permit New Permittees

Reporting Period: July 1, 2019-June 30, 2020

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. Please ONLY report on activities between July 1, 2019 and June 30, 2020 unless otherwise requested.

## **Part I: Contact Information**

Name o	of Municipality or Organi	zation: Westover Air R	eserve ]	Base		
EPA N	PDES Permit Number: N	1AR042051				
Primar	ry MS4 Program Manag	er Contact Informatio	on			
Name:	Champanine Saviengvor	ıg	Title:	Environmental Engi	neer	
Street A	Address Line 1: 250 Patri	ot Avenue				
Street A	Address Line 2:					
City:	Chicopee	see State: MA Zip Code: 01022				
Email:	il: champanine.saviengvong@us.af.mil Phone Number: (413) 557-3951					
Stormy	water Management Prog	gram (SWMP) Inform	ation			
SWMP Location (web address): https://www.westover.afrc.af.mil/About-Us/Resources/Environmental-and-Noise/				ces/Environmental-and-		
Date SWMP was Last Updated: July 2020						
If the S	SWMP is not available on	the web please provide	the phy	sical address:		

<sup>\*\*</sup>Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form\*\*

# **Part II: Self-Assessment**

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.

Annual Requirements
Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice Requirements
⊠ Kept records relating to the permit available for 5 years and made available to the public
Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information for your self-assessment, and/or if any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

# 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? Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters Li	ist
which can be found here: <a href="https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state">https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state</a>	

YesNo

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

Outfall 004 discharges to an unnamed tributary of the Connecticut River (MA34-60; locally known as Willimansett Brook). The 2016 Integrated List of Waters listed e. coli as an additional impairment to this waterbody. The SWMP and applicable BMPs were updated in accordance with Appendix H of the 2016 Final Permit. See Section 3 of the Westover ARB SWMP.

## **Part IV: Minimum Control Measures**

Part IV includes some of the metrics that will be required in upcoming annual reports. For this annual report, these metrics are optional for new permittees; please fill out any of the metrics below that you have started within this reporting period. Then, proceed to Part V.

**MCM1: Public Education** 

Number of educational messages completed during this reporting period: 3
Below, report on the educational messages completed during this reporting period. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.
BMP: 1a - Industrial Users (including employees, tenants, and contractors)
Message Description and Distribution Method:
• Face-to-face training of Marine Vehicle Repair Shop in October and November 2019 on Spill Prevention and
Response; • Stormwater training for Aircraft Maintenance Group on 6 and 9 February 2020 (see slideshow in Appendix F of the SWMP); and • Posted Environmental Management System Posters throughout base on stormwater and pollution prevention
topics (see example poster in Appendix F of the SWMP).
Targeted Audience: employees, tenants, and contractors
Responsible Department/Parties: Base Environmental Office (439 MS/CEV)
Measurable Goal(s):
Distribute one message within the 6-yr term of 2017-2023.
Message Date(s): Oct/Nov 2019; February 2020; and continuous via posters
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:
Westover determined a different set of audiences was applicable based on discussions with EPA. See BMP 1a in the Westover ARB SWMP.

Add an Educational Message

# MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) during this reporting period:
The SWMP and Annual Report were posted online for public feedback. See BMP 2a and 2b in the Westover ARB SWMP.
Was this opportunity different than what was proposed in your NOI? Yes ○ No ⊙
Describe any other public involvement or participation opportunities conducted <b>during this reporting period</b> :
N/A
MCM3: Illicit Discharge Detection and Elimination (IDDE)  Sanitary Sewer Overflows (SSOs)  Check off the box below if the statement is true.
☐ This SSO section is NOT applicable because we DO NOT have sanitary sewer
Below, report on the number of SSOs identified in the MS4 system and removed during this reporting period.
Number of SSOs identified: 0
Number of SSOs removed: 0
Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified since the effective date of the permit (July 1, 2018).
Total number of SSOs identified: 0
Total number of SSOs removed: 0
MS4 System Mapping
Below, check all that apply.  The following elements of the Phase I man have been completed:
The following elements of the Phase I map have been completed:

 $\boxtimes$  Open channel conveyances

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☐ Initial catchment delineations	
Describe any additional progress you made on your map during this reporting period or provide additional information regarding your map:	litional
Phase I mapping updated to represent recent construction. See BMP 3d in the Westover ARB SWN	<b>1</b> P.
Screening of Outfalls/Interconnections	
If conducted, please submit any outfall monitoring results <b>from this reporting period</b> . Outfall monit	toring
results should include the date, outfall/interconnection identifier, location, weather conditions at tive	
sampling, precipitation in previous 48 hours, field screening parameter results, and results from al	l analyses.
<ul> <li>The outfall screening data is attached to the email submission</li> </ul>	
○ 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	
Catchment Investigations	
If conducted, please submit all data collected <mark>during this reporting period</mark> as part of the dry and we	
investigations. Also include the presence or absence of System Vulnerability Factors for each catch	ment.
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: 0	
Below, report on the percent of catchments investigated <b>to date</b> .	
Percent of total catchments investigated: 0	
Optional: Provide any additional information for clarity regarding the catchment investigations bel	ow:
Deadlines for dry weather screening and catchment investigations are delayed for new non-tradition	
permitees. No screenings or catchment investigations have been conducted yet. Dry weather screen	
sampling will be conducted by 30 June 2024. Catchment investigations on high and low priority ou	
be completed by 30 June 2031. Currently, no outfalls are classified as problem outfalls. However, i	1 Tuture

outfall ranking updates discover a problem outfall (possibly based on the results of dry weather screening), a

catchment investigation on that outfall will begin earlier. See BMP 3b in the Westover ARB SWMP.

### **IDDE Progress**

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If illicit discharges were found, please submit a docume period, and cumulative to date, including location sour date of discovery; and date of elimination, mitigation, of schedule of removal.   The illicit discharge removal report in the illicit discharge removal report of the illicit	rce; de or enf is atta	escription forcement ched to t	n of the discharge; method of discovery; t OR planned corrective measures and the email submission
Below, report on the number of illicit discharges identi, removed during this reporting period.	ified a	nd remo	ved, along with the volume of sewage
Number of illicit discharges identified:	0		
Number of illicit discharges removed:	0		
Estimated volume of sewage removed:	0		gallons/day
Below, report on the total number of illicit discharges it the number of illicit discharges identified and removed	since	the effe	<u> -</u>
Total number of illicit discharges identi	ified:	0	
Total number of illicit discharges remov	ved:	0	
Optional: Provide any additional information for clarit planned to be removed below:	ty reg	arding ill	licit discharges identified, removed, or
No illicit discharges have been discovered. The deadling permittees is delayed until 30 June 2022. See BMP 3b			<del>-</del>
<b>Employee Training</b>			
Describe the frequency and type of employee training	if con	ducted d	luring this reporting period:
No illicit discharge training has been conducted yet. E until completion of the IDDE Program written procedu BMP 3b and 3e in the Westover ARB SWMP.			
MCM4: Construction Site Below, report on the construction site plan reviews, inst this reporting period.			
Number of site plan reviews completed:	: 1		
Number of inspections completed: 0			

Number of enforcement actions taken: 0

# MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

#### **Ordinance Development**

Describe the status of the post-construction ordinance required to be complete by year 3 of the permit term:

A written policy applicable to Westover ARB will be developed by 30 June 2021. See BMP 5b in the Westover SWMP.

(Notes on previous page MCM4: Site plan reviewed for - Repair Runway 05/23 Project.)

#### **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:

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, including submission of as-built drawings and development of operation and maintenance procedures. Additionally ETL 14-1 includes additional operation and maintenance requirements for projects. Both of these documents are enforced at Westover ARB. See BMP 5c in the Westover SWMP.

#### Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment including any planned or completed changes to local regulations and guidelines:

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. See BMP 5d in the Westover ARB SWMP.

#### **Green Infrastructure Report**

Describe the status of the green infrastructure report, including the findings and progress towards making the practice allowable:

This report is not applicable to non-traditional permittees (2016 Final Permit Part 5.1.3).

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Retrofit	Pro	perties	Inv	entory
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Describe the status of the inventory 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:

A list of retrofit opportunities will	be developed by 30 June 2023.	See BMP 5c in the Westove	er ARB SWMP.

Catch	Basin	Cleaning

MCM6: Good Housekeeping	
Catch Basin Cleaning	
Describe the status of the catch basin cleaning optimization plan:	
(this text field is not 'wrapping' - must manual scroll to see entire entry) Procedures for operat	tion and maintena
If complete, attach the catch basin cleaning optimization plan or the schedule to gather inforn the optimization plan:	nation to develop
<ul> <li>The catch basin cleaning optimization plan or schedule is attached to the en</li> <li>The catch basin cleaning optimization plan or schedule can be found at the website:</li> </ul>	
https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1067	/afi32-1067.pdf
Below, report on the number of catch basins inspected and cleaned, along with the total volun removed from the catch basins during this reporting period.	ne of material
Number of catch basins inspected: 408	
Number of catch basins cleaned: 66	
Total volume or mass of material removed from all catch basins: 210	cubic feet
Below, report on the total number of catch basins in the MS4 system, if known.	
Total number of catch basins: 1,457	
If applicable:	
Report on the actions taken if a catch basin sump is more than 50% full during two consecutive	ve routine

inspections/cleaning events:

N/A			

#### **Street Sweeping**

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

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. See BMP 6f in the Westover ARB SWMP. See below for street sweeping reporting (quantified in square feet instead of miles per base procedures). EPA/MassDEP unit of measure (miles) does not quite match Westover's situation; the bulk of Westover's sweeping is conducted on aircraft aprons and runways

Report on street sweeping completed during the reportin	g period using one of the three m	etrics below.
O Number of miles cleaned:		
O Volume of material removed:	[Select Units]	
O Weight of material removed:	[Select Units]	
If applicable:		
For rural uncurbed roadways with no catch basins, descritargeted sweeping plan:	ibe the progress of the inspection	n, documentation, and
Base Proper: 62 million square feet of street sweeping d square feet of street sweeping during the last reporting y		ield: 12.6 billion
O&M Procedures and Inventory of Permittee-Owned	Properties	
Below, check all that apply.	Tropereies	
The following permittee-owned properties have been inv	entoried:	
□ Parks and open spaces		
⊠ Buildings and facilities		
∨ Vehicles and equipment		
The following O&M procedures for permittee-owned pro	operties have been completed:	
□ Parks and open spaces		
⊠ Buildings and facilities		
∨ Vehicles and equipment		

#### Winter Road Maintenance

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

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. See BMP 6g in the Westover ARB SWMP.

#### **Stormwater Pollution Prevention Plan (SWPPP)**

Describe the status of any SWPPP 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:

Westover ARB as a whole is subject to the EPA MSGP and therefore maintains and annually updates a SWPPP. See BMP 6h in the Westover ARB SWMP.
Below, report on the number of site inspections for facilities that require a SWPPP completed during this reporting period.
Number of site inspections completed: 0
Describe any corrective actions taken at a facility with a SWPPP:

#### **O&M Procedures for Stormwater Treatment Structures**

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

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 requires that the BOS contractor 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. See BMP 6e in the Westover ARB SWMP.

# Part V: Additional Information

## **Monitoring or Study Results**

reporting period not otherwise mentioned above, where the data is being used to inform permit compliance o
permit effectiveness must be attached.

sermi effectiveness must be utueneu.
<ul><li>Not applicable</li></ul>
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
<i>Optional:</i> 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:
Structural BMP Tracking was completed during the reporting year, as requried by Appendix F Part B.I.1.c.iii for Nitrogen TMDL requirements and Appendix H Attachment 1 of the 2016 Final Permit. See attached files and BMP 7e in the Westover ARB SWMP.
COVID-19 Impacts
Optional: If any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

**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 3 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree ⊠

- Complete IDDE ordinance
- Complete Construction/ Erosion and Sediment Control (ESC) ordinance
- Develop written procedures for site inspections and enforcement of sediment and erosion control measures
- Develop written procedures for site plan review

#### 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
- Continue public education and outreach program

Provide any additional details on activities planned for permit year 3 below:

Implementation of post-construction stormwater policy that meets the requirements of the 2016 Final Permit is planned. See BMP 6b in the Westover ARB SWMP.

## Part VI: Certification of Small MS4 Annual Report 2020

#### 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: Environmental Engineering Chief

 $Signature: \begin{matrix} MORIARTY.JOH & Digitally signed by \\ MORIARTY.JOHN.B.122853017 \\ N.B.1228530170 & Date: 2020.09.16 12:52:35 -04'00' \\ \end{matrix}$ 

[Signatory may be a duly authorized representative]

Date: 09/16/20

*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: laura.schifman@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