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

EPA NPI			
	DES Permit Number: M	AR041035	
Primary	MS4 Program Manag	er Contact Informat	ion
Name: St	even Hayward		Title: Highway Surveyor
Street Ad	ldress Line 1: 60 Hemlo	ck Lane	
Street Ad	ldress Line 2: na		
City: H	alifax	State: MA	Zip Code: 02338
Email: st	eve.hayward@halifax-n	na.org	Phone Number: (781) 293-1760
Fax Num	ber: na		
Stormwa	ter Management Prog	ram (SWMP) Inform	nation
SWMP L	ocation (web address):	stormwater-managem SWMP Signature Pag	nalifax-ma.org/highway-department/files/halifax- nent-program ge: http://www.halifax-ma.org/sites/halifaxma/files/ p_signature_page.pdf
Date SW	MP was Last Updated:	Jun 28, 2019	
	MP is not available on d on the web:	the web please provid	le the physical address and an explanation of why it is

Part II: Self Assessment

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

Impairment(s))			
	Bacteria/Pathogens Solids/ Oil/ Grease (Hydr	Chloride ocarbons)/ Metals	× Nitrogen	× Phosphorus
TMDL(s)				
In State:	Assabet River Phosphorus Charles River Watershed		ria and Pathogen Lake and Pond	Cape Cod Nitrogen Phosphorus
Out of State:	Bacteria/Pathogens	Metals	Nitrogen	Phosphorus
			Cl	ear Impairments and TMDLs
you have comp	leted that permit requireme ditional information will be r	nt fully. If you hav	ve not completed a re	ch box you are certifying that equirement leave the box
•	and begin public education	and outreach proc	ram	
•	and develop inventory of all			scharged to the MS4 in the
last 5 ye		known locations	where 550s have dis	scharged to the M54 in the
·	○ The SSO inventory is atta	ached to the email	submission	
	• The SSO inventory can b	e found at the foll	owing website:	
	http://www.halifax-ma.or program (in IDDE Plan, which is a			ormwater-management-
⊠ Develop	written IDDE plan including			ing outfalls
_	rdinance complete			
Identify			from MS4, classify in	to the relevant category, and
	○ The priority ranking of or	utfalls/interconnec	ctions is attached to t	he email submission
	• The priority ranking of ou	utfalls/interconnec	ctions can be found a	t the following website:
	http://www.halifax-ma.or program (in IDDE Plan, which is a			ormwater-management-
☐ Constru	ction/ Erosion and Sediment			
	written procedures for site i	` '	•	nt and erosion control
☐ Develop	written procedures for site p	olan review		
⊠ Keep a l	log of catch basins cleaned or	r inspected		

Town of Halifax Pag	ge 3
☐ 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 receiving waters	to
☐ All curbed roadways have been swept a minimum of one time per year	
Nitrogen (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)	
Annual Requirements Public Education and Outreach*	
Distribute an annual message in the spring (April/May) that encourages the proper use and disposagrass clippings and encourages the proper use of slow-release fertilizers	al of
Distribute an annual message in the summer (June/July) encouraging the proper management of powers, including noting any existing ordinances where appropriate	
Distribute an annual message in the fall (August/September/October) encouraging the proper disposit of leaf litter	
* Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)	le
Good Housekeeping and Pollution Prevention for Permittee Owned Operations	
Increase street sweeping frequency of all municipal owned streets and parking lots subject to Perm part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)	1it
Potential structural BMPs	
Any structural BMPs listed in Table 3 of Attachment 1 to Appendix H already existing or installed 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 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 each annual report	ne
Phosphorus (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)	
Annual Requirements	
Public Education and Outreach*	
Distribute an annual message in the spring (April/May) that encourages the proper use and disposagrass 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 powers, including noting any existing ordinances where appropriate	
Distribute an annual message in the fall (August/September/October) encouraging the proper disposition of leaf litter	osal

* 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
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:
-Halifax has started drafts of bylaws and /or regulations covering the following: -IDDE -Construction/ Erosion and Sediment Control (ESC) -Written procedures for site inspections and enforcement of sediment and erosion control measures -Written procedures for site plan review -Post-Construction Stormwater Management As of 9/30/19, a bylaw was being finalized for October (2019) Town Meeting. The Stormwater Management Bylaw passed Town Meeting on 10/21/19, after which point regulations and other updates will be completed for full MS4 compliance.
-Halifax plans to start sweeping all curbed roadways and town-owned parking lots twice per year starting in Fiscal Year 2020 (7/1/19-6/30/20).
-Halifax did not post leaf litter message in the fall, but included leaf litter educational message in spring messaging. In subsequent years, Halifax will post leaf litter message in the fall.
-Per Appendix H requirements for discharges to nutrient-impaired waterbodies, Halifax will track and estimate nutrient removal for structural BMPs after developing a list of potential structural BMPs in Permit Year 5.

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?

 $Yes \times No$

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

Receiving waters list was updated for improved accuracy.

Solids/TSS/Turbidity impairment was removed from West Monponsett Pond. While West Monponsett Pond is impaired for for secchi disk transparency, which could translate to an impairment for Solids/TSS/Turbidity, it is not listed as impaired for Solids/TSS/Turbidity.

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: 6+
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.
BMP: 1.01: Spring Educational Message
Message Description and Distribution Method:
Halifax posted a series of Facebook messages on the Board of Health page about stormwater, including highlighting proper use and disposal of grass clippings and proper use of slow-release and phosphorus-free fertilizers. May 2018 messages also mentioned proper disposal of leaf litter.
Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities
Responsible Department/Parties: Board of Health
Measurable Goal(s):
2018: 31 Likes or Loves, 9 Shares 2019: 17 Likes, 19 Shares Board of Health Facebook page has 196 "likes" total.
Message Date(s): June 15, 2018; May 6 and 8, 2019
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:
BMP:1.02: Summer Educational Message
Message Description and Distribution Method:
Halifax posted a series of Facebook messages on the Board of Health page about stormwater and water quality, including summer messages about pet waste. Board of Health weekly column also included mention
of dog waste on May 24, 2019. Weekly column is available at http://www.halifax-ma.org/board-health/pages/
health-agent-columns.
Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities
Responsible Department/Parties: Board of Health

Town of Halifax Page 7
Board of Health Facebook page has 196 "likes" total.
Message Date(s): June 15, 2018, May 6, 2019, June 6, 2019
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:
BMP: 1.03: Fall Educational Message
Message Description and Distribution Method:
Halifax posted a "Stormwater Sleuth" educational message on the Board of Health Facebook page in the fall. May 6 and 8, 2019 Stormwater messages listed under BMP 1.01 mentioned proper disposal of leaf litter.
Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities
Responsible Department/Parties: Board of Heatlth
Measurable Goal(s):
0 Likes, 0 Shares Board of Health Facebook page has 196 "likes" total.
Message Date(s): November 9, 2018
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:
BMP: 1:07: Septic System Owners Educational Message
Message Description and Distribution Method:
Halifax posted a series of Facebook messages about stormwater and water quality, including information
about septic systems. Halifax Board of Health Agent also included five messages about septic system in weekly column available at http://www.halifax-ma.org/board-health/pages/health-agent-columns.
Targeted Audience: Residents
Responsible Department/Parties: Board of Health
Measurable Goal(s):
19 Likes and Loves
5 Comments + 2 Responses from Halifax 3 Shares

Гоwn of Halifax		Page 8
Board of Health F	Facebook page has 196 "likes" total.	
Message Date(s):	May 2, 4, 9, and 15, 2018; June 21 and 28, 2018; August 2 and 24, 2018; September 2018. January 16, and 19 2019; February 14, 2019; May 23, 2019; June 6, 2019.	8,
Message Complet	ted for: Appendix F Requirements Appendix H Requirements	
Was this message	e different than what was proposed in your NOI? Yes⊠ No □	
If yes, describe w	why the change was made:	
BMP was not included.	cluded in NOI because of confusion over permit requirements. Halifax has since clarif	ied and
	Facebook Messages about Stormwater and Water Quality otion and Distribution Method:	
In addition to the	messages listed above, Halifax Board of Health posted various ongoing messages on bout stormwater and water quality issues, especially related to Monponsett Ponds.	its
Targeted Audienc	ce: Residents, Businesses, Institutions and Commercial Facilities	
Responsible Depa	artment/Parties: Board of Health	
Measurable Goal	(s):	
Board of Health F	Facebook page has 196 "likes" total.	
Message Date(s):	Ongoing	
Message Complete	ted for: Appendix F Requirements Appendix H Requirements	
Was this message	e different than what was proposed in your NOI? Yes \(\sime\) No \(\infty\)	
	why the change was made:	
12 J 65, 40531160 W		
BMP:Board of H	Health Column	
Message Descript	tion and Distribution Method:	
including dog was	Agent frequently includes messages about stormwater in weekly column, with specifiaste, septic systems, and water quality. The column is available at http://www.halifaxes/health-agent-columns.	
Targeted Audienc	ce: Residents, Businesses, Institutions and Commercial Facilities	
Responsible Depa	artment/Parties: Board of Health	
Measurable Goal((s):	
13 messages on to	opics related to MS4	

Town of Halifax	Page 9
Message Date(s): The column is weekly. MS4-specific messages were posted on to Message Date(s): 2018: May 4, May 25, June 27, August 3, August 24, September 2019: January 19, February 14, March 8, April 4, May 3, May 24	7, November 3
Message Completed for: Appendix F Requirements Appendix H Requirements	ments 🖂
Was this message different than what was proposed in your NOI? Yes ☐ No [\boxtimes
If yes, describe why the change was made:	
Add an Educational Message	
MCM2: Public Participation	
Describe the opportunity provided for public involvement in the development of the Program (SWMP) during the reporting period:	e Stormwater Management
Halifax posted its SWMP on the Highway Department web page of the Town webshttp://town.halifax.ma.us/Pages/HalifaxMA_Highway/stormwater/SWMP_Halifax	
As of August, 2019, the new URL is http://www.halifax-ma.org/highway-department/files/halifax-stormwater-managem. The signature page of the SWMP is available at http://www.halifax-ma.org/sites/halifax_swmp_signature_page.pdf	1 0
The SWMP included contact information for the public to provide comments to the Program Team (page 4). No comments were received on the SWMP.	e Stormwater Management
Was this opportunity different than what was proposed in your NOI? Yes \(\scale \) N	o 🗵
Describe any other public involvement or participation opportunities conducted du	
-Halifax supported the Halifax Beautification Committee with its Spring Clean Up Approximately 125 people attended and collected a dumpster worth of trash.	Day on April 27, 2019.
-Halifax supported the Monponsett Watershed Association (MWA) with trash pick around Monponsett Ponds on May 11, 2019. Approximately 20 people attended. To the Facebook post about the event. Halifax and MWA each publicized the event.	-
-Halifax Town staff attended meetings with the Monponset Watershed Association Working Group), on February 1, 2019 (with State Representative LaNatra), and June	•
-Halifax posted Monponsett Ponds water quality information on Board of Health F information about Monponsett Ponds on Health Agent Column.	acebook page and shared

Town of Halifax Page 10 -Halifax hosted hazardous waste collection days on August 4, 2018 and November 3, 2018. 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: 0 Number of SSOs removed: N/A 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: 0 Total number of SSOs removed: N/A **MS4 System Mapping** Describe the status of your MS4 map, including any progress made during the reporting period: No progress made during this reporting period. Halifax will begin reporting in Year 2. **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 O The outfall screening data can be found at the following website: N/A Below, report on the number of outfalls/interconnections screened during this reporting period. Number of outfalls screened: N/A

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.

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

Percent of total outfalls screened: N/A

Town of Halifax			Page 11
 The catchment investigation data is 	attacl	ned to the	the email submission
○ The catchment investigation data ca	an be f	found at	at the following website:
N/A			
Below, report on the number of catchment investigation Number of catchment investigations co		-	
Palow various the paraent of estalmous investigate	nd to a	lata	
Below, report on the percent of catchments investigate Percent of total catchments investigate			
_			the establishment investigations below
Optional: Provide any additional information for claring N/A	ny reg	garding u	the catchment investigations below:
IV/A			
IDDE Progress If illicit discharges were found, please submit a docum period, and cumulative to date, including location sout date of discovery; and date of elimination, mitigation, schedule of removal. O The illicit discharge removal report O The illicit discharge removal report N/A Below, report on the number of illicit discharges identified: Number of illicit discharges identified: Number of illicit discharges removed:	is attacan b	description forcement ached to be found a	tion of the discharge; method of discovery; ment OR planned corrective measures and o the email submission d at the following website:
Estimated volume of sewage removed:	N/A		[UNITS]
Below, report on the total number of illicit discharges the number of illicit discharges identified and removed Total number of illicit discharges identified Total number of illicit discharges removed.	identid since	the effe	1
Optional: Provide any additional information for claring planned to be removed below:	ity reg	arding il	illicit discharges identified, removed, or
N/A			

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

Two Halifax town staff (Town Administrator and Board of Health Agent) reviewed IDDE concepts and IDDE MS4 requirements at meetings with external consultant on October 23, 2018 and May 10, 2019. The Halifax Select Board heard a presentation about IDDE bylaw requirements on March 26, 2019.

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	l: 6
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 in year 2 of the permit term:

As of 9/30/19, Halifax has started a draft bylaw to be finalized for October (2019) Town Meeting, along with regulations to be finalized after bylaw passage. The Stormwater Management Bylaw passed Town Meeting on 10/21/19, after which point regulations and other updates will be completed for full MS4 compliance.

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:

As of 9/30/19, Halifax has started a draft bylaw to be finalized for October (2019) Town Meeting, along with regulations to be finalized after bylaw passage. The Stormwater Management Bylaw passed Town Meeting on 10/21/19, after which point regulations and other updates will be completed for full MS4 compliance.

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:

No progress made during this reporting period.

own of Halifax	Page 13
Green Infrastructure Report	
Describe the status of the green infrastructure report due in year 4 of the permit term, incand progress towards making the practice allowable:	cluding the findings
No progress made during this reporting period.	
Retrofit Properties Inventory	
Describe the status of the inventory, due in year 4 of the permit term, of permittee-owner be modified or retrofitted with BMPs to mitigate impervious areas and report on any promodified or retrofitted:	
No progress made during this reporting period.	
Catch Basin Cleaning Describe the status of the catch basin cleaning optimization plan: No progress made during this reporting period.	
If complete, attach the catch basin cleaning optimization plan or the schedule to gather it the optimization plan:	
 The catch basin cleaning optimization plan or schedule is attached to t The catch basin cleaning optimization plan or schedule can be found a website: 	
N/A	
Below, report on the number of catch basins inspected and cleaned, along with the total removed from the catch basins during this reporting period.	volume of material
Number of catch basins inspected: 231	
Number of catch basins cleaned: 231	
Total volume or mass of material removed from all catch basins: 12	tons

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

Total number of catch basins: 1209 (town)

If applicable:	
Report on the actions taken if a catch basin sump is mor inspections/cleaning events:	re than 50% full during two consecutive routine
N/A	
Street Sweeping	
Describe the status of the written procedures for sweepi	ing streets and municipal-owned lots:
No progress made during this reporting period.	
Report on street sweeping completed during the reporting	ng period using one of the three metrics below.
• Number of miles cleaned: 12	
○ Volume of material removed:	[UNITS]
O Weight of material removed:	[UNITS]
If applicable:	
For rural uncurbed roadways with no catch basins, descratgeted sweeping plan:	ribe the progress of the inspection, documentation, an
N/A	
Winter Road Maintenance	
Describe the status of the written procedures for winter sand:	road maintenance including the storage of salt and
No progress made during this reporting period.	
Inventory of Permittee-Owned Properties	
Describe the status of the inventory, due in year 2 of the parks and open spaces, buildings and facilities, and vehicles	
No progress made during this reporting period.	

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:					
No progress made during this reporting period.					
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:					
No progress made during this reporting period.					
Below, report on the number of site inspections for facilities that require a SWPPP completed during this reporting period. Number of site inspections completed: N/A					
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:					
No progress made during this reporting period.					

Additional Information

Monitoring or Study Results

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

16
ion ve:
j

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:	Charlie Seelig	Title:	Town Administrator
1	Charlie Seelig Digitally signed by Charlie Seelig Date: 2019.10.24 17:08:53 -04'00' [Signatory may be a duly authorized representative]	Date:	