## 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 Orga	nization: Town of Arlington	
EPA NPDES Permit Number:	MAR041027	

#### **Primary MS4 Program Manager Contact Information**

Name:	: Wayne A. Chouinard, P.E.		Title: Town Engineer				
Street A	Address Line 1: Department of Pu	ıblic Works; En	gineering	g Division			
Street A	Address Line 2: 51 Grove Street						
City:	Arlington State: MA Zip Code: 02476						
Email:	wchouinard@town.arlington.ma.	us	Phone N	Number: (781) 316-3321			
Fax Nu	umber: 781-316-3281						

#### Stormwater Management Program (SWMP) Information

SWMP Location (web address): https://www.arlingtonma.gov/home/showdocument?id=47189

Date SWMP was Last Updated: Jun 24, 2019

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

Impairment(	<u>s)</u>			
	🛛 Bacteria/Pathogens	🛛 Chloride	🖂 Nitrogen	⊠ Phosphorus
	Solids/ Oil/ Grease (Hy	drocarbons)/ Metal	S	
TMDL(s)				
In State:	🛛 Assabet River Phospho	rus 🛛 🖾 Bacto	eria and Pathogen	🔀 Cape Cod Nitrogen
	$\boxtimes$ Charles River Watersho	ed Phosphorus	$\boxtimes$ Lake and Pond $\mathbb{I}$	Phosphorus
Out of State:	Bacteria/Pathogens	⊠ Metals	🛛 Nitrogen	⊠ Phosphorus
			Cle	ar 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
- Identify and develop inventory of all known locations where SSOs have discharged to the MS4 in the last 5 years
  - The SSO inventory is attached to the email submission
  - $\bigcirc$  The SSO inventory can be found at the following website:

See attached 2019 MS4 Annual Report - SSO Addendum

- Develop written IDDE plan including a procedure for screening and sampling outfalls
- IDDE ordinance complete
- 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:

SEE IDDE Addendum

- 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
- $\boxtimes$  Keep a log of catch basins cleaned or inspected
- 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 (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

#### Annual Requirements

Public Education and Outreach\*

- Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

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

#### Chloride

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

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 disposal of grass clippings and encourages the proper use of slow-release 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 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 each annual report

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 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

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

#### **Charles River Watershed Phosphorus TMDL**

Begin Phase 1 Phosphorus Control Plan (PCP)

#### Lake and Pond Phosphorus TMDL

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:

- Construction/ Erosion and Sediment Control; Preparation of the Construction/ Erosion and Sediment Control (ESC) ordinance is in-progress and is anticipated to be completed by the end of permit year #3; currently all excavation work and/or construction requires "crossover" permit to access properties from the Town Right of-Way. To address ESC a condition is included on all permits to provide erosion and sediment control. - Develop written procedures: Written procedures for site inspections and enforcement of sediment and erosion control measures are under development and are anticipated to be completed by the end of permit Year #2.

- Develop written procedures for site plan review; Site Plan review within the Town of Arlington are currently performed by numerous Boards &/or Committees, including Building Department, Arlington Redevelopment Board, Conservation Commission and the DPW: Engineering Division.

- The Town is awaiting completion of on-line permit application. Once available, appropriate messages will be provide at the time of renewal of dog licenses.

- Provide information to owners of septic systems; The Town is currently checking and updating the list of suspected properties still utilizing on-site sewage disposal systems. Once this list is complete an appropriate Tip sheet will be provided as well as information for how to connect to the Town Sewer Collection System.

- Include an annual message in November/ December; An announcement is planned for an annual message in November/ December regarding application of salt & de-icing chemicals to the Local Chamber of Commerce for dissemination to over 266 members. A message will be included on the Town web page as well.

- No nitrogen removal analysis has been performed to date.

- Charles River Watershed Phosphorus TMDL; The Town will be reviewing the requirements of the Phosphorus Control Plan and begin preapration.

- Lake and Pond Phosphorus TMDL - Not applicable

## 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:

All necessary data is included on the Town GIS MS4 Map

## 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:	11
	0	1	0	1 0	1	

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:**[Nutrient Reduction]

Message Description and Distribution Method:

The Town held a workshop for Landscaping Professionals detailing the effects on stormwater from the application of fertilizer and other surface treatments. Workshop was advertised by direct email to over 50+ local landscape professionals and to residents through Town Web Page

Targeted Audience: Developers (construction) - Landscape Professionals & Residents

Responsible Department/Parties: Engineering & Environmental Planner

Measurable Goal(s):

Information regarding the workshop was was sent to 50+ Landscape Professionals through direct email. There were 9 attendees present. Presentation was recorded and is available on-demand through local cable outlet ACMI.

Message Date(s): August 2	8, 2019	
Message Completed for:	Appendix F Requirements 🗌	Appendix H Requirements
Was this message different	than what was proposed in your N	NOI? Yes 🛛 No 🗌
If yes, describe why the cha	ange was made:	
This was a new idea to pres	sent information directly to those	that apply the nutrients in the community.

Add an Educational Message

### **MCM2:** Public Participation

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

A forum public participation in the Stormwater Management Plan was in April 9, 2019 where the Town's Environmental Team accepted final input for consideration prior to implementing the SWMP.

Was this opportunity different than what was proposed in your NOI? Yes  $\Box$  No  $\boxtimes$ 

Describe any other public involvement or participation opportunities conducted during the reporting period: The public was invited to numerous stormwater forums; 8/14/19, 9/11/18, 10/9/18, 12/11/18, 1/08/19 to discuss stormwater, flood issues and climate resiliency, culminating with a final SWMP discussion on April 9, 2019.

### 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: 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 2013.

Total number of SSOs identified: 1

Total number of SSOs removed: 1	
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#### MS4 System Mapping

Describe the status of your MS4 map, including any progress made during the reporting period (phase I map due in year 2):

The MS4 GIS Map is continually being refined and currently includes outfalls, receiving waters, open channel conveyances, municipally owned stormwater BMP's, catchment delineations, Intercommunity connections and water bodies identified by name with impairments

#### **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

 $\bigcirc$  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: 233

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

Percent of total outfalls screened: ~95%

#### **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.

 $\bigcirc$  The catchment investigation data is attached to the email submission

 $\bigcirc$  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 to date.

Percent of total catchments investigated: 0

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

#### **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.

 $\bigcirc$  The illicit discharge removal report is attached to the email submission

 $\bigcirc$  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:	0	
Number of illicit discharges removed:	0	
Estimated volume of sewage removed:	0	[UNITS]

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 removed: 0

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

#### **Employee Training**

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

- Currently the Environmental Team for the Town of Arlington consists of the Town Engineer, Asst. Town Engineer and the Environmental Planner are the qualified trained staff for the IDDE Program. Additional refresher training is planned to be performed in year 2 to include DPW Operations Staff and DPW Supervisors.

### 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: 17			
Number of inspections completed:	14		
Number of enforcement actions tak	ten: 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:

Town of Arlington permit requirements, regulations and ordinances pertinent to stormwater were thoroughly reviewed as part of the EPA Mystic River Municipal Support Collaborative. It is the intention of the Town to update the Town's Stormwater Ordinances in conjunction with the final report prepared by ERG and the Horsley Witten Group.

#### As-built Drawings

All issued permits for Stormwater Mitigation Review since January 2018 have required submittal of as-built drawings and Designer certifications.

### **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:

- Assessment of the street design and parking lot assessment has not yet commenced.

### **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:

- Assessment of the Green Infrastructure Report has not yet commenced.

### **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:

Inventory of Town properties and facilities was performed in Year 1. A Retrofit Inventory will be completed by the end of permit year #4.

## MCM6: Good Housekeeping

### Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

Catch basin plan is on-going. Anticipate completion of cleaning and inspecting all catch basins by end of year

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

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Town of Arlington

- The catch basin cleaning optimization plan or schedule is attached to the email submission
- C 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: 421

Number of catch basins cleaned: 421

Total volume or mass of material removed from all catch basins: ~150cy [UNITS]

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

Total number of catch basins: ~3,540

#### If applicable:

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

All catch basins cleaned during year #1 and scheduled to be cleaned during year #2 will be cleaned regardless of level of sediment to prepare a base line to follow. If sediment exceeds 50% of sump depth in two consecutive years the tributary drainage collection system will be investigated for sources of excessive loading.

#### **Street Sweeping**

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

See attached Street Sweeping Optimization Plan Addendum

Procedures are being modified to include GIS mapping and date tracking for street sweeping tracking in year 2

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

Number of miles cleaned: 1,812 miles
Volume of material removed: 300 cy
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:

Many private ways in the Town of Arlington are un-curbed and do not have stormwater collection infrastructure. The Town of Arlington performs snow removal & de-icing on al streets in Arlington including public and private ways. As such, the Town also performs street sweeping on all public and private ways.

#### Winter Road Maintenance

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

Winter road maintenance and salt/sand storage procedures are under review. Update to be completed by end of year #2.

#### **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:

Inventory of Town properties and facilities was performed in Year 1. Coordination meeting included all pertinent staff to identify responsibilities by departments and staff for each property/facility.

Inventory list will be formulated and finalized in compliance with permit time-line requirements.

#### 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:

Preparation of operation and maintenance plans for all Town properties and facilities is underway. progress to identify requirements and coordination pertinent to landscaping management, snow removal & de-icing, waste management, parking lot maintenance and vehicle wash requirements.

O&MK procedures will be formulated and finalized in compliance with permit time-line requirements.

#### **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:

SWPPP requirements are currently under review for the DPW Maintenance Facility located at 51 Grove St. and Public Safety Maintenance Facility located at 112 Mystic Street.

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:

Operation and Maintenance requirements have been reviewed for all pre-existing stormwater BMP's. Preparation of an updated comprehensive Stormwater BMP Operation & Maintenance Report is currently underway and scheduled for completion prior to the end of permit year #2. Report will include an updated inventory, specific O&M requirements by type and O&M tracking log/calendar. Update will include recently installed porous pavement locations, rain gardens and stormwater infiltration trenches.

### **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
- $\bigcirc$  The results from additional reports or studies are attached to the email submission
- $\bigcirc$  The results from additional reports or studies can be found at the following website(s):

None performed.

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:

New BMPs were installed, type and quantity follows:

- porous pavement (2)
- stormwater infiltration trench (11)
- rain gardens (2)

### 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)

- 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:

Installation of additional stormwater BMP's associated with a recently awarded CZM Grant for areas tributary to Alewife Brook.

### 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:	Sanford Pooler	Title: Acting Town N
	[Signatory may be a duly authorized representative]	Date: 7/30/19

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**Engineering Division** 

July 9, 2019

TOWN OF ARLINGTON Department of Public Works 51 Grove Street Arlington, Massachusetts 02476 Office(781) 316-3320 Fax (781) 316-3281

## 2019 MS4 Annual REPORT

### **Catch Basin Cleaning Optimization Plan - Addendum**

September 30, 2019

#### <u>Year #1</u>

- Catch Basin Inventory has been completed using GPS and web-based technology.
- Catch Basin locations included on GIS Map
- Plan developed for Catch Basin Maintenance using mobile GIS application
  - a. Pilot program implemented collecting inspection criteria and maintenance status.
    - i. Sump data collection
    - ii. Cleaning status
- Stormwater BMP's: Inventory, inspect and clean
  - a. Town owned stormwater **BMP's** 
    - i. Rain Gardens

- iv. Hydrodynamic Separators
- ii. Porous Pavementiii. Infiltration Trenches
- v. Leaching Catch Basins vi. Oil/Grit separators
- b. Stormwater BMP's located using GPS and web-based technology.
- c. BMP Inspection procedures and O&M Plans developed for each BMP type.
- d. BMP inspection and cleaning underway
- Catch basin cleaning Material
  - a. Quantity of sediment collected from catch basin cleaning is tracked through the waste hauling contract from the DPW Yard

#### <u>Year #2</u>

- Request for proposal for town-wide **Catch Basin** cleaning contract underway. Cleaning to be performed by sub-contractor
- Remainder of Town catch basin inventory to be cleaned and inspected using GIS Mobile Application.
- Town Stormwater **BMP's**:
  - a. Inspection and cleaning continues, to be completed in Year #2.

#### <u>Year #3</u>

Annual Catch Basin maintenance scheduled to continue. Data collection will identify catch basins with excess sediment accumulation above 50% of sump for utilization.

- Additional goals to include determining catch basin type, grate type, status of hooded outlet:
  - a. Catch Basin Type:
    - i. Standard catch basin; with deep sump hooded outlet
    - ii. Gutter inlet; no sump
    - iii. Gutter inlet with drain manhole with sump
  - b. Grate Type
    - i. Standard grate
    - ii. Cascade grate
    - iii. Double catch basin
  - c. Hooded outlet
    - 1. Present: yes or no
    - 2. Type
      - a. Cast iron outlet cover
      - b. Cast iron elbow
      - c. PVC fixture
    - ii. Hooded outlet
  - d. Gutter Inlet
  - e. Inlet/Manhole Set up

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**Street Sweeping Optimization Plan Schedule** 

#### **DPW Street Sweeping Procedures:**

DPW adheres to the following street sweeping procedures:

Spring street sweeping operations: All streets are swept once in the sping, typically when snow and weather conditions allow. Typically beginning in mid-March.

Fall street sweeping operations : All streets are swept once in the fall, typically when snow and weather conditions allow. Typically up to end of December.

Once street sweeping operations commence the DPW performs additional street sweeping every week on the following roadways:

- Mass Ave.(3.83mi.)
- Grove St. (0.28mi.)
- Brattle St. (0.33mi.)
- Summer St. (2.03mi.)
- Forest St. (0.94mi.)
- Park Ave.Ext.(0.49mi.) •

As part of MCM Section 6 the following is required:

- Lowell St.(0.66mi.)
- Paul Revere Rd.(0.42mi.)
- Park Ave.(0.47mi.)
- Appleton St.(1.33mi.)
- Pleasant St.(0.87mi.)
- Mystic St.(1.53mi.) ٠

Sweep all streets and permitee-owned parking lots in accordance with permit conditions

#### 2019 Annual Street Sweeping Summary for permit period May 1, 2018 to June 30, 2019

93.25 miles (186.5 lane miles)
22.28 miles (44.56 lane miles)
93.25 miles (186.5 lane miles)
22.28 miles (44.56 lane miles)

Additional Sweeping – 34 weeks (34 x 32.91 lane miles): 558.47 miles (1,118.94 lane miles)

#### Total Streets swept for permit period May 1, 2018 to June 30, 2019: Total = ~1,812 lane miles



• Lake St.(0.93mi.)

- Broadway(1.0mi.)
- Warren St.(0.54mi.)
- Municipal Parking Lots (0.58 mi.equiv)

• Chestnut St. (0.22mi.)



Engineering Division

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## 2019 MS4 Annual Report

#### SSO Addendum

September 30, 2019

	SSO DATE						
STADT	END	REPORTED TO DEP		POSITION		CALISE	EST.
START	END	TO DEP	REPORTED BY	POSITION	LOCATION	CAUSE	DISCHARGE
			Michael	Water & Sewer	Kimball Road at Mystic		
12/9/2014	12/10/2014	12/10/2014	Tassinari	Superintendent	Valley Parkway	Rain	400 Gal.



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## 2019 MS4 Annual Report

## **Outfall Screening Addendum**

September 30, 2019

facilityid	insp_id	category	insp_date	insp_by	insp other	inspector
, OF-8	DISIN-2	Dry	 6-Aug-18	Town	• =	jt az
OF-11	DISIN-4	, Dry	6-Aug-18	Town		jtaz
OF-10	DISIN-5	, Dry	6-Aug-18	Town		jtaz
OF-70	DISIN-6	, Dry	7-Aug-18	Town		jtaz
OF-245	DISIN-7	, Dry	7-Aug-18	Town		jtaz
OF-191	DISIN-8	, Dry	7-Aug-18	Town		jtaz
OF-71	DISIN-9	Dry	7-Aug-18	Town		jtaz
OF-196	DISIN-10	Dry	7-Aug-18	Town		jtaz
OF-243	DISIN-11	Dry	7-Aug-18	Town		jtaz
OF-179	DISIN-12	Dry	7-Aug-18	Town		jtaz
OF-189	DISIN-13	Dry	7-Aug-18	Town		jtaz
OF-251	DISIN-14	Dry	7-Aug-18	Town		jtaz
OF-184	DISIN-15	Dry	7-Aug-18	Town		jtaz
OF-67	DISIN-17	Dry	8-Aug-18			jtaz
OF-205	DISIN-18	Dry	8-Aug-18	Town		jtaz
OF-263	DISIN-19	Dry	8-Aug-18	Town		jtaz
OF-95	DISIN-20	Dry	8-Aug-18	Town		jtaz
OF-260	DISIN-21	Dry	8-Aug-18	Town		jtaz
OF-31	DISIN-22	Dry	8-Aug-18	Town		jtaz
OF-199	DISIN-23	Dry	8-Aug-18	Town		jtaz
OF-271	DISIN-24	Dry	8-Aug-18	Town		jtaz
OF-273	DISIN-25	Dry	8-Aug-18	Town		jtaz
OF-292	DISIN-26	Dry	8-Aug-18	Town		jtaz
OF-246	DISIN-27	Dry	7-Aug-18	Town		jtaz
			14-Aug-			
OF-276	DISIN-28	Dry	18	Town		jtaz
			10-Sep-			
OF-287	DISIN-29	Dry	18	Town		jt
05 050	DIGUE OF		10-Sep-	-		•.
OF-270	DISIN-30	Dry	18	Town		jt

			10-Sep-		
OF-285	DISIN-31	Dry	18 18 10-Sep-	Town	jt
OF-268	DISIN-32	Dry	10-Sep- 18 10-Sep-	Town	jt
OF-282	DISIN-33	Dry	18	Town	jt
OF-296	DISIN-34	Dry	12-Sep- 18 12-Sep-	Town	jt
OF-255	DISIN-35	Dry	12-Sep- 18 12-Sep-	Town	jt
OF-226	DISIN-36	Dry	12-Sep- 18 12-Sep-		jt
OF-69	DISIN-37	Dry	12-Sep- 18 12-Sep-	Town	jt
OF-228	DISIN-38	Dry	12 Sep 18 12-Sep-	Town	jt
OF-266	DISIN-39	Dry	12 Sep 18 12-Sep-	Town	jt
OF-206	DISIN-40	Dry	12 Sep 18 12-Sep-	Town	jt
OF-187	DISIN-41	Dry	18 12-Sep-	Town	jt
OF-232	DISIN-42	Dry	18 12-Sep-	Town	jt
OF-181	DISIN-43	Dry	18 12-Sep-	Town	jt
OF-239	DISIN-44	Dry	18 12-Sep-	Town	jt
OF-250	DISIN-45	Dry	18 12-Sep-	Town	jt
OF-247	DISIN-46	Dry	18 12-Sep-	Town	jt
OF-244	DISIN-47	Dry	18 12-Sep-	Town	jt
OF-175	DISIN-48	Dry	18 12-Sep-	Town	jt
OF-98	DISIN-49	Dry	18 14-Sep-	Town	jt
OF-295	DISIN-50	Dry	18 14-Sep-	Town	jt
OF-297	DISIN-51	Dry	18 14-Sep-	Town	jt
OF-272	DISIN-52	Dry	18 14-Sep-	Town	jt
OF-267	DISIN-53	Dry	18 14-Sep-	Town	jt
OF-227	DISIN-54	Dry	18 14-Sep-	Town	jt
OF-59	DISIN-55	Dry	18	Town	jt
OF-308	DISIN-56	Dry	14-Sep-	Town	jt
2. 000	2.0.11.00	,			7

14-Sep-         14-Sep-         jt           0F-298         DISIN-57         Dry         18         Town         jt           14-Sep-         14-Sep-         jt         jt         jt           0F-298         DISIN-59         Dry         18         Town         jt           0F-275         DISIN-60         Dry         18         Town         jt           0F-372         DISIN-60         Dry         18         Town         jt           0F-101         DISIN-61         Dry         18         Town         jt           0F-100         DISIN-62         Dry         18         Town         jt           0F-105         DISIN-64         Dry         18         Town         jt           0F-105         DISIN-64         Dry         18         Town         jt           0F-312         DISIN-65         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-131         DISIN-67         Dry         18         Town         jt           0F-132         DISIN-68         Dry         18         Town         jt				18		
OF-298     DISIN-58     Dry     18     Town     jt       0F-275     DISIN-59     Dry     18     Town     jt       0F-37     DISIN-60     Dry     18     Town     jt       0F-101     DISIN-61     Dry     18     Town     jt       0F-101     DISIN-62     Dry     18     Town     jt       0F-100     DISIN-62     Dry     18     Town     jt       0F-235     DISIN-63     Dry     18     Town     jt       0F-105     DISIN-64     Dry     18     Town     jt       14-Sep-     0     14-Sep-     14-Sep-     14-Sep-       0F-105     DISIN-65     Dry     18     Town     jt       14-Sep-     14-Sep-     14-Sep-     14-Sep-     14-Sep-       0F-311     DISIN-66     Dry     18     Town     jt       14-Sep-     14-Sep-     14-Sep-     14-Sep-     14-Sep-       0F-194     DISIN-67     Dry     18     Town     jt       14-Sep-     14-Sep-     14-Sep-     14-Sep-     14-Sep-       0F-212     DISIN-70     Dry     18     Town     jt       14-Sep-     14-Sep-     14-Sep-     14-Se	OE-207		Dru	14-Sep-	Town	i+
OF-298         DISIN-58         Dry         18         Town         jt           0F-275         DISIN-59         Dry         18         Town         jt           0F-275         DISIN-60         Dry         18         Town         jt           0F-37         DISIN-60         Dry         18         Town         jt           0F-101         DISIN-61         Dry         18         Town         jt           0F-100         DISIN-62         Dry         18         Town         jt           0F-105         DISIN-63         Dry         18         Town         jt           0F-311         DISIN-64         Dry         18         Town         jt           0F-312         DISIN-65         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-314         DISIN-67         Dry         18         Town         jt           0F-194         DISIN-67         Dry         18         Town         jt           0F-211         DISIN-70         Dry         18         Town         jt           0F-212         DISIN-71 <t< td=""><td>01-307</td><td>013110-37</td><td>ыу</td><td></td><td>TOWIT</td><td>JL</td></t<>	01-307	013110-37	ыу		TOWIT	JL
OF-275       DISIN-59       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       jt         0F-37       DISIN-60       Dry       18       Town       jt         14-Sep-       18       Town       jt         0F-101       DISIN-61       Dry       18       Town       jt         14-Sep-       0F-100       DISIN-62       Dry       18       Town       jt         0F-102       DISIN-63       Dry       18       Town       jt         0F-235       DISIN-63       Dry       18       Town       jt         0F-105       DISIN-64       Dry       18       Town       jt         0F-311       DISIN-65       Dry       18       Town       jt         0F-312       DISIN-66       Dry       18       Town       jt         0F-194       DISIN-67       Dry       18       Town       jt         0F-194       DISIN-67       Dry       18       Town       jt         0F-201       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       To	OF-298	DISIN-58	Dry	•	Town	jt
OF-37         DISIN-60         Dry         18         Town         jt           14-Sep-         0F-101         DISIN-61         Dry         18         Town         jt           0F-101         DISIN-62         Dry         18         Town         jt           0F-100         DISIN-62         Dry         18         Town         jt           0F-235         DISIN-63         Dry         18         Town         jt           0F-105         DISIN-64         Dry         18         Town         jt           0F-312         DISIN-65         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-174         DISIN-67         Dry         18         Town         jt           0F-211         DISIN-68         Dry         18         Town         jt           0F-214         DISIN-70         Dry         18         Town         jt           0F-201         DISIN-71         Dry         18         Town         jt           0F-212         DISIN-71         Dry         18         Town         jt           0F-216 <td< td=""><td></td><td></td><td>-</td><td>•</td><td>_</td><td></td></td<>			-	•	_	
OF-37         DISIN-60         Dry         18         Town         jt           14-Sep-         0F-101         DISIN-61         Dry         18         Town         jt           0F-100         DISIN-62         Dry         18         Town         jt           0F-235         DISIN-63         Dry         18         Town         jt           0F-235         DISIN-64         Dry         18         Town         jt           0F-312         DISIN-64         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-314         DISIN-67         Dry         18         Town         jt           0F-312         DISIN-67         Dry         18         Town         jt           0F-194         DISIN-67         Dry         18         Town         jt           0F-211         DISIN-68         Dry         18         Town         jt           0F-212         DISIN-70         Dry         18         Town         jt           0F-212 <td< td=""><td>OF-275</td><td>DISIN-59</td><td>Dry</td><td></td><td>Iown</td><td>jt</td></td<>	OF-275	DISIN-59	Dry		Iown	jt
OF-101       DISIN-61       Dry       18       Town       jt         14-Sep-       14-Sep-       jt       14-Sep-       jt         OF-100       DISIN-62       Dry       18       Town       jt         14-Sep-       0F-105       DISIN-63       Dry       18       Town       jt         0F-235       DISIN-64       Dry       18       Town       jt         0F-311       DISIN-65       Dry       18       Town       jt         0F-312       DISIN-66       Dry       18       Town       jt         0F-312       DISIN-67       Dry       18       Town       jt         0F-194       DISIN-67       Dry       18       Town       jt         0F-173       DISIN-67       Dry       18       Town       jt         0F-211       DISIN-69       Dry       18       Town       jt         0F-212       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-212       DISIN-72       Dry       18       Town       jt         0F-216       DISIN-73       D	OF-37	DISIN-60	Dry		Town	jt
0F-100         DISIN-62         Dry         18         Town         jt           14-Sep-         0F-235         DISIN-63         Dry         18         Town         jt           0F-235         DISIN-63         Dry         18         Town         jt           0F-105         DISIN-64         Dry         18         Town         jt           0F-311         DISIN-65         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-312         DISIN-67         Dry         18         Town         jt           0F-312         DISIN-67         Dry         18         Town         jt           0F-313         DISIN-67         Dry         18         Town         jt           0F-201         DISIN-69         Dry         18         Town         jt           0F-212         DISIN-70         Dry         18         Town         jt           0F-221         DISIN-71         Dry         18         Town         jt           0F-256 <t< td=""><td></td><td></td><td></td><td>14-Sep-</td><td></td><td></td></t<>				14-Sep-		
OF-100       DISIN-62       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       jt         0F-235       DISIN-63       Dry       18       Town       jt         0F-235       DISIN-64       Dry       18       Town       jt         0F-312       DISIN-65       Dry       18       Town       jt         0F-312       DISIN-66       Dry       18       Town       jt         0F-312       DISIN-67       Dry       18       Town       jt         0F-312       DISIN-67       Dry       18       Town       jt         0F-173       DISIN-67       Dry       18       Town       jt         0F-173       DISIN-68       Dry       18       Town       jt         0F-173       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-221       DISIN-72       Dry       18       Town       jt         0F-221       DISIN-73       Dry       18       Town       jt         0F-316       DISIN-74       Dry       18       Town </td <td>OF-101</td> <td>DISIN-61</td> <td>Dry</td> <td></td> <td>Town</td> <td>jt</td>	OF-101	DISIN-61	Dry		Town	jt
OF-235       DISIN-63       Dry       18       Town       jt         14-Sep-       OF-105       DISIN-64       Dry       18       Town       jt         0F-315       DISIN-65       Dry       18       Town       jt         0F-311       DISIN-65       Dry       18       Town       jt         0F-312       DISIN-66       Dry       18       Town       jt         0F-194       DISIN-67       Dry       18       Town       jt         0F-173       DISIN-68       Dry       18       Town       jt         0F-211       DISIN-69       Dry       18       Town       jt         0F-212       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-212       DISIN-72       Dry       18       Town       jt         0F-214       DISIN-73       Dry       18       Town       jt         0F-215       DISIN-74       Dry       18       Town       jt         0F-316       DISIN-75 </td <td>OF-100</td> <td></td> <td>Dry</td> <td>•</td> <td>Town</td> <td>it</td>	OF-100		Dry	•	Town	it
OF-235         DISIN-63         Dry         18         Town         jt           0F-105         DISIN-64         Dry         18         Town         jt           0F-105         DISIN-64         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-194         DISIN-67         Dry         18         Town         jt           0F-211         DISIN-69         Dry         18         Town         jt           0F-212         DISIN-70         Dry         18         Town         jt           0F-212         DISIN-71         Dry         18         Town         jt           0F-212         DISIN-72         Dry         18         Town         jt           0F-214         DISIN-73         Dry         18         Town         jt           0F-216         DISIN-74         <	01 100	DISIN 02	Diy		TOWIT	JC
OF-105         DISIN-64         Dry         18         Town         jt           14-Sep-         14-Sep-         18         Town         jt           0F-311         DISIN-65         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-312         DISIN-67         Dry         18         Town         jt           0F-312         DISIN-67         Dry         18         Town         jt           0F-312         DISIN-67         Dry         18         Town         jt           0F-214         DISIN-67         Dry         18         Town         jt           0F-211         DISIN-68         Dry         18         Town         jt           0F-212         DISIN-70         Dry         18         Town         jt           0F-212         DISIN-71         Dry         18         Town         jt           0F-215         DISIN-72         Dry         18         Town         jt           0F-216         DISIN-73         Dry         18         Town         jt           0F-316         DISIN-75         Dry         <	OF-235	DISIN-63	Dry	18	Town	jt
OF-311       DISIN-65       Dry       18       Town       jt         14-Sep-       OF-312       DISIN-66       Dry       18       Town       jt         0F-312       DISIN-66       Dry       18       Town       jt         14-Sep-       OF-194       DISIN-67       Dry       18       Town       jt         0F-194       DISIN-67       Dry       18       Town       jt         0F-211       DISIN-68       Dry       18       Town       jt         0F-213       DISIN-69       Dry       18       Town       jt         0F-201       DISIN-70       Dry       18       Town       jt         14-Sep-       O       Or-212       DISIN-71       Dry       18       Town       jt         0F-221       DISIN-72       Dry       18       Town       jt       14-Sep-         OF-214       DISIN-73       Dry       18       Town       jt         0F-256       DISIN-74       Dry       18       Town       jt         0F-315       DISIN-75       Dry       18       Town       jt         14-Sep-       Or       18       Town       jt			-	•	_	
OF-311         DISIN-65         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-312         DISIN-66         Dry         18         Town         jt           0F-194         DISIN-67         Dry         18         Town         jt           0F-194         DISIN-67         Dry         18         Town         jt           0F-211         DISIN-68         Dry         18         Town         jt           0F-211         DISIN-69         Dry         18         Town         jt           0F-201         DISIN-70         Dry         18         Town         jt           0F-212         DISIN-71         Dry         18         Town         jt           0F-212         DISIN-72         Dry         18         Town         jt           0F-212         DISIN-73         Dry         18         Town         jt           0F-216         DISIN-73         Dry         18         Town         jt           0F-216         DISIN-75         Dry         18         Town         jt           0F-315         DISIN-76         <	OF-105	DISIN-64	Dry		Iown	jt
OF-312       DISIN-66       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-211       DISIN-67       Dry       18       Town       jt         14-Sep-       0       14-Sep-       14-Sep-       14-Sep-         OF-211       DISIN-68       Dry       18       Town       jt         14-Sep-       0       0       18       Town       jt         0F-173       DISIN-69       Dry       18       Town       jt         0F-201       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-221       DISIN-72       Dry       18       Town       jt         0F-266       DISIN-73       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18 <t< td=""><td>OF-311</td><td>DISIN-65</td><td>Dry</td><td>•</td><td>Town</td><td>it</td></t<>	OF-311	DISIN-65	Dry	•	Town	it
0F-194       DISIN-67       Dry       18       Town       jt         14-Sep-       0F-211       DISIN-68       Dry       18       Town       jt         0F-211       DISIN-68       Dry       18       Town       jt         0F-173       DISIN-69       Dry       18       Town       jt         0F-201       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-212       DISIN-72       Dry       18       Town       jt         0F-214       DISIN-73       Dry       18       Town       jt         0F-256       DISIN-73       Dry       18       Town       jt         0F-256       DISIN-74       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78 </td <td></td> <td></td> <td>,</td> <td></td> <td></td> <td>,</td>			,			,
OF-194         DISIN-67         Dry         18         Town         jt           0F-211         DISIN-68         Dry         18         Town         jt           0F-211         DISIN-68         Dry         18         Town         jt           0F-211         DISIN-69         Dry         18         Town         jt           0F-201         DISIN-70         Dry         18         Town         jt           0F-212         DISIN-70         Dry         18         Town         jt           0F-212         DISIN-71         Dry         18         Town         jt           0F-212         DISIN-72         Dry         18         Town         jt           0F-221         DISIN-73         Dry         18         Town         jt           0F-256         DISIN-73         Dry         18         Town         jt           0F-316         DISIN-75         Dry         18         Town         jt           0F-315         DISIN-76         Dry         18         Town         jt           0F-219         DISIN-78         Dry         18         Town         jt           0F-317         DISIN-80         <	OF-312	DISIN-66	Dry		Town	jt
OF-211       DISIN-68       Dry       18       Town       jt         0F-211       DISIN-69       Dry       18       Town       jt         0F-173       DISIN-69       Dry       18       Town       jt         0F-201       DISIN-70       Dry       18       Town       jt         0F-201       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-221       DISIN-72       Dry       18       Town       jt         0F-186       DISIN-73       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-219       DISIN-77       Dry       18       Town       jt         0F-317       DISIN-78       Dry	OE 104		Day	•	Town	i+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	01-194		DIy		TOWIT	յւ
OF-173       DISIN-69       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-212       DISIN-70       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-212       DISIN-71       Dry       18       Town       jt         0F-221       DISIN-72       Dry       18       Town       jt         0F-221       DISIN-73       Dry       18       Town       jt         0F-260       DISIN-73       Dry       18       Town       jt         0F-256       DISIN-74       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-219       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-80       Dry	OF-211	DISIN-68	Dry	•	Town	jt
OF-201       DISIN-70       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-212       DISIN-71       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-212       DISIN-72       Dry       18       Town       jt         14-Sep-       18       Town       jt       14-Sep-       14-Sep-         OF-212       DISIN-72       Dry       18       Town       jt         0F-36       DISIN-73       Dry       18       Town       jt         0F-256       DISIN-74       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry <td< td=""><td></td><td></td><td>_</td><td>•</td><td>_</td><td>•</td></td<>			_	•	_	•
OF-201       DISIN-70       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-212       DISIN-71       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-221       DISIN-72       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-256       DISIN-73       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-176       DISIN-81       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18	OF-173	DISIN-69	Dry		Town	jt
OF-212       DISIN-71       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-221       DISIN-72       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-186       DISIN-73       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-256       DISIN-74       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18	OF-201	DISIN-70	Drv	-	Town	it
OF-221       DISIN-72       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       jt       jt         OF-186       DISIN-73       Dry       18       Town       jt         0F-256       DISIN-74       Dry       18       Town       jt         0F-256       DISIN-74       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       IN       18       Town			,			Je
OF-221       DISIN-72       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-186       DISIN-73       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-256       DISIN-74       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-316       DISIN-75       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-315       DISIN-76       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-238       DISIN-77       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town <td>OF-212</td> <td>DISIN-71</td> <td>Dry</td> <td></td> <td>Town</td> <td>jt</td>	OF-212	DISIN-71	Dry		Town	jt
OF-186       DISIN-73       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-256       DISIN-74       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-317       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       17-Sep-       17-Sep-       17-Sep-       17-Sep-       17-Sep-	05 221			•	Tourn	:+
OF-186       DISIN-73       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-256       DISIN-74       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-316       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       18       Town       jt       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       18       Town       jt       jt         17-Sep-       18       Town       jt       jt	UF-221	DISIN-72	Dry		rown	JL
OF-256       DISIN-74       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-315       DISIN-75       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-315       DISIN-76       Dry       18       Town       jt         0F-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       17-Sep-       17-Sep-       17-Sep-       17-Sep-         0F-317       DISIN-81       Dry       18       Town       jt	OF-186	DISIN-73	Dry	•	Town	jt
OF-316       DISIN-75       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-315       DISIN-76       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-238       DISIN-77       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-238       DISIN-77       Dry       18       Town       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       17-Sep-       17-Sep-       17-Sep-       17-Sep-				•		
OF-316         DISIN-75         Dry         18         Town         jt           14-Sep-         17-Sep-         17-Sep-	OF-256	DISIN-74	Dry		Town	jt
OF-315       DISIN-76       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-238       DISIN-77       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       14-Sep-       14-Sep-         OF-238       DISIN-77       Dry       18       Town       jt         14-Sep-       17-Sep-       17-Sep-       17-Sep-       17-Sep-         OF-317       DISIN-81       Dry       18       Town       jt         17-Sep-       17-Sep-       17-Sep-       17-Sep-       17-Sep-         OF-317       DISIN-81       Dry       18       Town       jt         17-Sep-       17-Sep-       17-Sep-       17-Sep-       17-Sep-	OF-316	DISIN-75	Drv	•	Town	it
OF-238       DISIN-77       Dry       18       Town       jt         14-Sep-       14-Sep-       14-Sep-       jt         0F-219       DISIN-78       Dry       18       Town       jt         0F-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       18       Town       jt       jt         17-Sep-       17-Sep-       jt       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       17-Sep-       jt       jt       jt       jt         17-Sep-       18       Town       jt       jt         17-Sep-       18       Town       jt         17-Sep-       18       Town       jt         17-Sep-       18       Town       jt         17-Sep-       17-Sep-       jt       jt         17-Sep-       17-Sep-       jt       jt         17-Sep-       17-Sep-       jt       jt         17-Sep-       18       Town       jt         17-Sep-       17-Sep- <t< td=""><td></td><td></td><td>,</td><td></td><td></td><td>Je</td></t<>			,			Je
OF-238         DISIN-77         Dry         18         Town         jt           14-Sep-         14-Sep-         14-Sep-         14-Sep-         14-Sep-         14-Sep-         15           OF-219         DISIN-78         Dry         18         Town         jt         17-Sep-           OF-176         DISIN-80         Dry         18         Town         jt           OF-317         DISIN-81         Dry         18         Town         jt           17-Sep-         17-Sep-         17-Sep-         17-Sep-         17-Sep-         17-Sep-	OF-315	DISIN-76	Dry		Town	jt
OF-219       DISIN-78       Dry       18       Town       jt         17-Sep-       17-Sep-       17       jt         OF-176       DISIN-80       Dry       18       Town       jt         0F-317       DISIN-81       Dry       18       Town       jt         17-Sep-       18       Town       jt       jt         17-Sep-       17-Sep-       18       Town       jt         17-Sep-       18       Town       jt         17-Sep-       18       Town       jt	05 220			-	Tourn	:+
OF-219         DISIN-78         Dry         18         Town         jt           17-Sep-         17-Sep-         17-Sep-         jt         jt         jt           OF-176         DISIN-80         Dry         18         Town         jt           0F-317         DISIN-81         Dry         18         Town         jt           17-Sep-         17-Sep-         17-Sep-         jt         jt	UF-238	DISIN-77	Dry		rown	JL
OF-176         DISIN-80         Dry         18         Town         jt           17-Sep-           OF-317         DISIN-81         Dry         18         Town         jt           17-Sep-           0F-317         DISIN-81         Dry         18         Town         jt           17-Sep-         17-Sep-         17-Sep-         17-Sep-         17-Sep-	OF-219	DISIN-78	Dry	•	Town	jt
17-Sep- OF-317 DISIN-81 Dry 18 Town jt 17-Sep-				•		
OF-317 DISIN-81 Dry 18 Town jt 17-Sep-	OF-176	DISIN-80	Dry		Town	jt
17-Sep-	OF-317	DISIN-81	Drv		Town	it
OF-301 DISIN-82 Dry 18 Town jt			1			ۍ ر
	OF-301	DISIN-82	Dry	18	Town	jt

			17-Sep-		
OF-231	DISIN-83	Dry	18	Town	jt
		,	17-Sep-	-	j -
OF-254	DISIN-84	Dry	18	Town	jt
			17-Sep-		
OF-230	DISIN-85	Dry	18	Town	jt
			17-Sep-		
OF-215	DISIN-86	Dry	18	Town	jt
		_	17-Sep-	_	
OF-209	DISIN-87	Dry	18	Town	jt
05 402		Duri	17-Sep-	<b>T</b>	:.
OF-182	DISIN-88	Dry	18 17 Son	Town	jt
OF-258	DISIN-89	Dry	17-Sep- 18	Town	jt
01-230		Dry	17-Sep-	TOWIT	jt
OF-46	DISIN-90	Dry	18	Town	can no
		,	24-Sep-		
OF-29	DISIN-91	Dry	18	Town	cw
			24-Sep-		
OF-30	DISIN-92	Dry	18	Town	CW
			24-Sep-		
OF-216	DISIN-93	Dry	18	Town	NL
			24-Sep-		
OF-265	DISIN-94	Dry	18	Town	NL
05.00		-	24-Sep-	-	
OF-32	DISIN-95	Dry	18	Town	jt
OF 01		Day	24-Sep-	Town	:+
OF-91	DISIN-96	Dry	18 24-Sep-	TOWN	jt
OF-335	DISIN-97	Dry	24-3ep- 18	Town	jt
01 333		Diy	24-Sep-	10WII	Ju
OF-326	DISIN-98	Dry	18	Town	jt
		,	24-Sep-		,
OF-213	DISIN-99	Dry	18	Town	NL
	DISIN-	-	25-Sep-		
OF-259	100	Dry	18	Town	jt
	DISIN-		25-Sep-		
OF-253	101	Dry	18	Town	jt
	DISIN-		26-Sep-		
OF-178	102	Dry	18	Town	Jt
05.240	DISIN-	D.	26-Sep-	<b>-</b>	
OF-248	103 DISIN-	Dry	18 26 Son	Town	NL CW
OF-241	104	Dry	26-Sep- 18	Town	Cw
01-241	DISIN-	Diy	26-Sep-	TOWIT	Cw
OF-261	105	Dry	20 Sep 18	Town	NL
	DISIN-	1	26-Sep-		
OF-207	106	Dry	18	Town	Cw
	DISIN-		26-Sep-		
OF-193	110	Dry	18	Town	NL
OF-203	DISIN-	Dry	26-Sep-	Town	NL

	111		18		
	DISIN-		26-Sep-		
OF-229	112	Dry	18	Town	NL
	DISIN-		26-Sep-		
OF-225	113	Dry	18	Town	NL
	DISIN-		26-Sep-		
OF-336	114	Dry	18	Town	Jt
	DISIN-		26-Sep-		
OF-188	115	Dry	18	Town	NL
	DISIN-				
OF-302	116	Dry	1-Oct-18	Town	NL
	DISIN-	_		_	
OF-200	117	Dry	1-Oct-18	Town	jt
05 202	DISIN-	Duri	1 0 + 10	<b>T</b>	:.
OF-202	118	Dry	1-Oct-18	Town	jt
OF-233	DISIN-	Day	1-Oct-18	Town	<u></u>
UF-255	119 DISIN-	Dry	1-001-18	TOWIT	CW
OF-72	120	Dry	1-Oct-18	Town	NL
01-72	DISIN-	Diy	1-001-18	TOWIT	INL
OF-208	121	Dry	1-Oct-18	Town	jt
01 200	DISIN-	Diy	1 000 10	10001	JC
OF-291	123	Dry	9-Oct-18	Town	jt
01 232	DISIN-	5.7	5 000 10		Je
OF-47	124	Dry	9-Oct-18	Town	jt
-	DISIN-	,		-	J
OF-103	125	Dry	9-Oct-18	Town	jt
	DISIN-				2
OF-104	126	Dry	9-Oct-18	Town	jt
	DISIN-				
OF-313	127	Dry	9-Oct-18	Town	jt
	DISIN-		10-Oct-		
OF-240	128	Dry	18	Town	Jt
	DISIN-		10-Oct-		
OF-257	129	Dry	18		Jt
	DISIN-		10-Oct-		
OF-192	130	Dry	18		Jt
05 050	DISIN-		10-Oct-	-	
OF-252	131	Dry	18	Town	Jt
05 474	DISIN-	Duri	10-Oct-	<b>T</b>	14
OF-174	132 DISIN	Dry	18	Town	Jt
OF 210	DISIN-	Day	10-Oct- 18	Town	1+
OF-218	133 DISIN-	Dry	10-Oct-	TOWIT	Jt
OF-197	134	Dry	10-001-	Town	Jt
01 157	DISIN-	Diy	10-Oct-	10001	50
OF-234	135	Dry	10-000-	Town	Jt
2. 201	DISIN-	,	10-Oct-		
OF-185	136	Dry	18	Town	Jt
	DISIN-	- /	10-Oct-		
OF-190	137	Dry	18	Town	Jt
		,			

	DISIN-		10-Oct-		
OF-236	138	Dry	10-001-	Town	Jt
01 230	DISIN-	Diy	10-Oct-	TOWIT	JU
OF-183	139	Dry	10 000	Town	Jt
01 105	DISIN-	Diy	10-Oct-	10001	Jt
OF-249	140	Dry	10 000		Jt
01 245	DISIN-	Diy	10-Oct-		Jt
OF-177	141	Dry	10 000	Town	Jt
01 1//	DISIN-	Diy	10-Oct-	10001	Jt
OF-210	142	Dry	18	Town	Jt
0. 210	DISIN-	2.7	10-Oct-	10000	
OF-210	143	Dry	18	Town	Jt
0. 210	DISIN-	2.7	10-Oct-	10000	
OF-214	144	Dry	18	Town	Jt
0. 21.	DISIN-	2.7	10-Oct-	10000	
OF-195	145	Dry	18	Town	Jt
	DISIN-	,	10-Oct-		
OF-318	146	Dry	18		Jt
	DISIN-	,	10-Oct-		
OF-318	147	Dry	18	Town	Jt
	DISIN-	,	10-Oct-		
OF-319	148	Dry	18	Town	Jt
	DISIN-	,	10-Oct-		
OF-242	149	Dry	18	Town	jt
	DISIN-	·	10-Oct-		-
OF-262	150	Dry	18	Town	jt
	DISIN-		10-Oct-		
OF-320	151	Dry	18	Town	jt
	DISIN-		10-Oct-		
OF-323	152	Dry	18	Town	jt
	DISIN-		10-Oct-		
OF-237	153	Dry	18	Town	jt
	DISIN-		11-Oct-		
OF-314	154	Dry	18	Town	jt
	DISIN-		17-Oct-		
OF-222	157	Dry	18	Town	jt
	DISIN-		17-Oct-		
OF-74	158	Dry	18	Town	jt
	DISIN-		17-Oct-		
OF-50	159	Dry	18	Town	jt
	DISIN-		17-Oct-		
OF-63	160	Dry	18	Town	jt
	DISIN-		17-Oct-		
OF-92	161	Dry	18	Town	jt
	DISIN-	_	17-Oct-	_	
OF-80	162	Dry	18	Town	jt
	DISIN-	_	17-Oct-	-	•
OF-220	163 DIGINI	Dry	18 17 Oct	Town	jt
05.264	DISIN-		17-Oct-	<b>T</b> - 1	•.
OF-264	164	Dry	18	Town	jt 
OF-49	DISIN-	Dry	18-Oct-	Town	jt

	165		18		
	DISIN-		18-Oct-		
OF-84	166	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-38	167	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-34	168	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-60	169	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-223	170	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-306	171	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-106	172	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-15	173	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-68	174	Dry	18	Town	jt
	DISIN-		18-Oct-		
OF-224	175	Dry	18	Town	jt
	DISIN-				
OF-360	176	Dry	25-Jul-19		Sap
	DISIN-				
OF-361	177	Dry	25-Jul-19	Town	Sap
	DISIN-				
OF-359	178	Dry	25-Jul-19	Town	sap
	DISIN-				
OF-90	179	Dry	25-Jul-19	Town	Sap
	DISIN-				
OF-168	180	Dry	25-Jul-19	Town	Sap
	DISIN-				
OF-39	181		25-Jul-19	Town	EB
	DISIN-				
OF-167	182	Dry	25-Jul-19	Town	EB
	DISIN-				
OF-165	183	Dry	25-Jul-19	Town	EB
	DISIN-				
OF-164	184	Dry	25-Jul-19	Town	EB
	DISIN-				
OF-163	185	Dry	25-Jul-19	Town	EB
	DISIN-				
OF-170	186	Dry	25-Jul-19	Town	EB
	DISIN-				
OF-28	187	Dry	25-Jul-19	Town	sap
	DISIN-				
OF-162	188	Dry	25-Jul-19	Town	sap
	DISIN-				
OF-161	189	Dry	25-Jul-19	Town	EB
	DISIN-				
OF-33	190	Dry	25-Jul-19	Town	EB

	DISIN-				
OF-18	191 DISIN-	Dry	29-Jul-19	Town	sap
OF-86	192 DISIN-	Dry	29-Jul-19	Town	EB
OF-108	193 DISIN-	Dry	29-Jul-19	Town	EB
OF-107	194 DISIN-	Dry	29-Jul-19	Town	EB
OF-1	195 DISIN-	Dry	29-Jul-19	Town	EB
OF-81	196 DISIN-	Dry	29-Jul-19	Town	EB
OF-77	197 DISIN-	Dry	29-Jul-19	Town	EB
OF-55	198 DISIN-	Dry	29-Jul-19	Town	EB
OF-21	199 DISIN-	Dry	29-Jul-19	Town	EB
OF-25	200 DISIN-	Dry	30-Jul-19	Town	Sap
OF-22	201 DISIN-	Dry	30-Jul-19	Town _	EB
OF-344	202 DISIN-	Dry	31-Jul-19	Town	sap
OF-381	203 DISIN-	Dry	31-Jul-19	Town	sap
OF-380	204 DISIN-	Dry	31-Jul-19	Town	sap
OF-342 OF-351	205 DISIN- 206	Dry	31-Jul-19 31-Jul-19	Town Town	sap
OF-351	200 DISIN- 207	Dry Dry	31-Jul-19	Town	Sap Sap
OF-349	DISIN- 208	Dry	31-Jul-19	Town	Sap
OF-352	DISIN- 209	Dry	31-Jul-19	Town	Sap
OF-44	DISIN- 210	Dry	31-Jul-19	Town	Sap
OF-44	DISIN- 211	, Dry	31-Jul-19	Town	Sap
OF-353	DISIN- 212	Dry	31-Jul-19	Town	Sap
OF-20	DISIN- 213	Wet	1-Aug-19	Town	EB
OF-19	DISIN- 214	Wet	1-Aug-19	Town	Sap
OF-389	DISIN- 215	Wet	1-Aug-19		Sap
OF-391	DISIN-	Wet	1-Aug-19	Town	Sap

	216				
OF-149	DISIN- 217	Wet	1-Aug-19	Town	San
01-149	DISIN-	WEL	1-Aug-19	TOWIT	Sap
OF-392	218 DISIN-	Wet	1-Aug-19	Town	Sap
OF-393	219	Wet	1-Aug-19	Town	Sap
OF-394	DISIN- 220	Wet	1-Aug-19	Town	Sap
OF-24	DISIN- 221	Wet	1-Aug-19	Town	sapp
	DISIN-		-		2000
OF-24	222 DISIN-	Wet	1-Aug-19	Town	sap
OF-23	223	Wet	1-Aug-19	Town	sap
OF-395	DISIN- 224	Wet	1-Aug-19	Town	sap
OF-88	DISIN- 225	Wet	1-Aug-19	Town	Sap
05445	DISIN-		-	-	
OF-145	226 DISIN-	Wet	1-Aug-19	Town	Sap
OF-73	227 DISIN-	Wet	1-Aug-19	Town	sap
OF-112	228	Wet	1-Aug-19	Town	Sap
OF-130	DISIN- 229	Wet	1-Aug-19	Town	sap
OF-133	DISIN- 230	Wet	1-Aug-19	Town	sap
	DISIN-		-		9.4P
OF-132	231 DISIN-	Wet	1-Aug-19	Town	sap
OF-134	232 DISIN-	Wet	1-Aug-19	Town	Sap
OF-138	233 DISIN-	Wet	1-Aug-19	Town	Sap
OF-137	234	Dry	1-Aug-19	Town	sap
OF-139	DISIN- 235	Wet	1-Aug-19	Town	sap
OF-140	DISIN- 236	Wet	1-Aug-19	Town	Sap
OF-143	DISIN- 237	Wet	1-Aug-19	Town	Sap
01-145	DISIN-	wet	I-Aug-13	TOWIT	Sah
OF-65	238 DISIN-	Wet	1-Aug-19	Town	Sap
OF-61	239 DISIN-	Wet	1-Aug-19	Town	Sap
OF-76	240	Wet	1-Aug-19	Town	Sap
OF-152	DISIN- 241	Wet	1-Aug-19	Town	sap

	DISIN-				
OF-151	242	Wet	1-Aug-19	Town	sap
	DISIN-				
OF-353	243	Dry	6-Aug-19	Town	EB



TOWN OF ARLINGTON Department of Public Works 51 Grove Street Arlington, Massachusetts 02476 Office(781) 316-3320 Fax (781) 316-3281

## 2019 MS4 Annual Report

## **IDDE Addendum**

September 30, 2019

Included with this addendum are the following:

- 1. Catchment Assessment and Prioritization Ranking Matrix
- 2. System Vulnerability Factor Assessment

#### CATCHMENT ASSESSMENT AND PRIORITIZATION RANKING MATRIX

ARLINGTON, MASSACHUSETTS updated September 30, 2019

						<u> </u>	<u> </u>		50,201				D	Ory Weath	her Ranki	ing Crite	eria								
Temporary Outfall ID	Regulated	Location	Recieving Water	Applicable Illicit Discharge Related Water Quality Impairments	o Undeveloped Area	Athletic Fields/Parks/Green Space w/o Services	Cross Country Through Undeveloped Areas	Known/Suspected Illicits	Sampling Prior to 2016 shows Sewer Input	Discharge to Drinking Water Source/Swimming Area	Discharge to Other Contact Recreation	Discharge Complaints	Approved TMDL for Bacteria	Water Quality Limited Water for E.Coli Bacteria	Poor Recieving Water Quality	o Sewers > 40 years old	<pre>u Infrastructure &gt; 40 years old</pre>	ه Septic Systems > 30 years old	n Septic to Sewer	Culverted Streams	Density of Generating Sites	Other Relevant Factors	2016 MS4 Sampling Shows Sewer Input	Dry Weather Ranking	Priority Category (Problem > 30, 30 ≥ High > 15, Low ≤ 15)
ARLINGTON					0	0	0	500	300	200	100	25	20	15	10	8	/	6	5	4	3	TBD	75		
OF-217	Y	0 MILL BROOK DR	MILL BROOK	303d: "Waters Requiring a TMDL"								-		15		8	7			4		-		34	Problem
OF-62	Y	22 BRATTLE ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7			4				34	Problem
AOF-4003	Y	MYSTIC STREET BRIDGE	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-104	Y	23 FOREST ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-167 OF-170	Y	Alewife Brook Greenway Boulevard Rd	ALEWIFE BROOK ALEWIFE BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7				3			33 33	Problem Problem
OF-226	Y	28 CLARK ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-273	Y	1381 MASS AVE	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-34	Y	42 LOWELL ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-5 OF-56	Y	51 GROVE ST ORR PARK AVE	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL"										15 15		8	7				3			33 33	Problem Problem
OF-56 OF-60	Y Y	13 OLD COLONY LN	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-66	Y	MT. PLEASANT CEMETERY	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-74	Y	33 LAUREL ST	MILL BROOK	303d: "Waters Requiring a TMDL"		ſ		1						15	_	8	7				3			33	Problem
OF-90	Y	NW OF 68 MYSTIC VALLEY PKWY	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-10 OF-100	Y	NORTH OF DRAKE ROAD BASEBALL FIELD 34 FOREST ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-101	Y	35 FOREST ST	MILL BROOK	303d: "Waters Requiring a TMDL"								-		15		8	7					-		30	High
OF-103	Y	9 RYDER ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-105	Y	14 RYDER ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-11	Y	NORTH OF DRAKE ROAD BASEBALL FIELD 0 MILL BROOK DR	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL"							-			15		8	7				-		-	30	High
OF-13 OF-15	ř Y	0 MYSTIC ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-161	Y	Lafayette St	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7						1	30	High
OF-162	Y	Lafayette St	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-163	Y	Mass Ave @ Cambridge Line	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-164 OF-165	Y V	Alewife Brook Greenway Alewife Brook Greenway	ALEWIFE BROOK ALEWIFE BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7						-	30 30	High High
OF-168	Y	Alewife Brook near Decatur St	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-171	Y	Lafayette St @ Boulevard Rd	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-178	Y	14 DUDLEY ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-179 OF-184	Y Y	None None	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-189	Y	None	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-191	Y	None	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-196	Y	0 MYSTIC VALLEY PKWY	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-198 OF-199	Y	22 MILL ST O RUSSELL ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-208	Y	17 MILL ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-223	Y	13 MILL ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-230	Y	0 QUINN RD	MILL BROOK	303d: "Waters Requiring a TMDL"					+					15		8	7							30	High
OF-233 OF-243	Y V	32 CENTRAL ST None	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"			-							15 15		8	7							30 30	High High
OF-245	Y	26 GARDEN ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL"		1			1			-		15		8	7							30	High
OF-251	Y	MT. PLEASANT CEMETERY	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-254	Y	0 QUINN RD	MILL BROOK	303d: "Waters Requiring a TMDL"					<u> </u>					15		8	7						<u> </u>	30	High
OF-256 OF-260	Y	1165 MASS AVE 88 MYSTIC ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-263	Y	88 MYSTIC ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-269	Y	LEXINGTON, MA	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-27	Y	None	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"					+					15		8	7							30	High
OF-274 OF-277	Y	LEXINGTON, MA LEXINGTON, MA	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-277 OF-279	Y Y	LEXINGTON, MA	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL 303d: "Waters Requiring a TMDL"		ł	1	1	1					15		8	7							30	High
OF-28	Ŷ	1 HERBERT RD	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-280	Y	LEXINGTON, MA	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-281 OF-284	Y	LEXINGTON, MA LEXINGTON, MA	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"			+	+						15 15		8	7							30 30	High
OF-284 OF-286	Y Y	LEXINGTON, MA	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"		1	1	1		1				15		8	7							30	High High
OF-289	Y	LEXINGTON, MA	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-29	Y	22 PRENTISS RD	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-290	Y	LEXINGTON, MA	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-294 OF-30	Y V	49 GROVE ST 22 PRENTISS RD	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"		ł	+	+			+			15 15		8	7				+		-	30 30	High High
0. 30			BROOK	Sood tracers negating a TMDE		1	1	1	1		1		1	15		0	. '	1	1 1		1	1			

													D	ory Weat	her Rank	ing Crite	eria								
Temporary Outfall ID	Regulat	ated Location	Recieving Water	Applicable Illicit Discharge Related Water Quality Impairments	Undeveloped Area	Athletic Fields/Parks/Green Space w/o Services	Cross Country Through Undeveloped Areas	Known/Suspected Illicits	Sampling Prior to 2016 shows Sewer Input	Discharge to Drinking Water Source/Swimming Area	Discharge to Other Contact Recreation	Discharge Complaints	Approved TMDL for Bacteria	Water Quality Limited Water for E.Coli Bacteria	Poor Recieving Water Quality	Sewers > 40 years old	Infrastructure > 40 years old	Septic Systems > 30 years old	Septic to Sewer	Culverted Streams	Density of Generating Sites	Other Relevant Factors	2016 MS4 Sampling Shows Sewer Input	Dry Weather Ranking	Priority Category (Problem > 30, 30 ≥ High > 15, Low ≤ 15)
OF-300	v	LEXINGTON, MA	MILL BROOK	303d: "Waters Requiring a TMDL"	0	0	0	500	300	200	100	25	20	15 15	10	<b>8</b>	7	6	5	4	3	TBD	75	30	High
OF-302	Y	22 MILL ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-31	Y		MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-311	Y	14 RYDER ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-32 OF-327	Y	None 0 RUSSELL ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL"										15 15		8	7			_				30 30	High High
OF-327 OF-328	Y Y	0 RUSSELL ST	MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-33	Y	None	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-353	Y	0 MYSTIC VALLEY PKWY	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-366 OF-367	Y	88 MYSTIC ST 0 MYSTIC ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-307	Y	1323 MASS AVE	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-370	Y	None	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-38	Y	1020 111 100 1112	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7	+						30	High
OF-39 OF-44	Y	131 SUNNYSIDE AVE None	ALEWIFE BROOK MYSTIC RIVER	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"					-					15 15		8	7				 		+	30 30	High High
OF-46	Y	Mill Lane	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-47	Y	17 MILL LN	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-49	Y	22 MILL ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-50 OF-51	Y	17 LAUREL ST NE FROM 181 FRANKLIN ST	MILL BROOK MYSTIC RIVER	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-52	Y	PARALLEL TO END OF RAWSON RD	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-54	Y	RT.60 BRIDGE AT MEDFORD LINE	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-6	Y	51 610 12 51	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7			_				30	High
OF-63 OF-67	Y	22 BRATTLE ST 26 GARDEN ST	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-68	Y	0 RUSSELL ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-69	Y	28 CLARK ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-71	Y	0 MYSTIC VALLEY PKWY	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-72 OF-8	Y	17 MILL ST 27 DRAKE RD	MILL BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-80	Y	8 DUDLEY ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-84	Y	47 PARK AVE	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-87	Y	EAST OF 59 SUNNYSIDE AVE	ALEWIFE BROOK	303d: "Waters Requiring a TMDL"										15		8	7			_				30	High
OF-89 OF-9	Y	EAST OF 65 SUNNYSIDE AVE ARLINGTON HIGH SCHOOL CULVERT	ALEWIFE BROOK MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15	-	8	7	-	-					30 30	High High
OF-91	Y	66 DUDLEY ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-92	Y	8 DUDLEY ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-93	Y	0 MYSTIC VALLEY PKWY	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7	-		_				30	High
OF-94 OF-98	Y	RIVER ST AT BRIDGE MEDFORD LINE 29 LOCKE ST	MYSTIC RIVER MILL BROOK	303d: "Waters Requiring a TMDL" 303d: "Waters Requiring a TMDL"										15 15		8	7							30 30	High High
OF-99	Y	ACROSS FROM 5 MYSTIC LAKE DR	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-154	Y	0 REED ST	WETLAND OFF REED ST / LEXINGTON LINE													8	7				3			18	Low
OF-18	Y	None	SPY POND													8	7				 3			18	Low
OF-24 OF-86	Y V	0 SPY POND PKWY 56 POND LN	SPY POND SPY POND	+	1	+	<u> </u>	-	+			ł	+	<u> </u>	<u> </u>	8	7	+	+	+	 3			18 18	Low
OF-1	Y	0 ADDISON ST	SPY POND													8	7							15	Low
OF-102	Y	0 FOREST ST	WETLAND OFF FOREST ST / WINCHESTER LINE													8	7							15	Low
OF-107	Y	0 POND LN	SPY POND													8	7	-	-					15	Low
OF-108 OF-14	Y Y	0 POND LN 423 MYSTIC ST	SPY POND UPPER MYSTIC LAKE					l					-			8	7						+	15 15	Low
OF-155	Y	34 REED ST	WETLAND OFF REED ST / LEXINGTON LINE													8	7							15	Low
OF-156	Y	0 FOREST ST	WETLAND OFF FOREST ST / WINCHESTER LINE													8	7							15	Low
OF-16 OF-2	Y	0 PARKER RD 10 CHAPMAN ST	LOWER MYSTIC LAKE SPY POND													8	7		+		 		+	15	Low
OF-2 OF-20	Y Y	10 CHAPMAN SI 0 POND LN	SPY POND SPY POND					l					-			8	7						-+	15 15	Low
OF-21	Y	0 SPRING VALLEY	SPY POND													8	7							15	Low
OF-22	Y	0 SPY POND LN	SPY POND													8	7							15	Low
OF-23 OF-25	Y	0 SPY POND PKWY 0 SPY POND PKWY	SPY POND SPY POND													8	7				 			15 15	Low
OF-25 OF-3	r Y	None	WETLAND OFF DOROTHY RD / CAMBRIDGE LINE		1	1						1	1	<u> </u>	<u> </u>	8	7	1	+	+	 		-+	15	Low
OF-342	Y	BEHIND 59 THESDA ST	MCLENNEN PARK DETENTION BASIN													8	7							15	Low
OF-344	Y	BEHIND 15 THESDA ST	MCLENNEN PARK DETENTION BASIN													8	7	↓	+	+				15	Low
OF-347 OF-35	Y v	630 SUMMER ST 112 CHURCHILL AVE	WETLAND OFF SUMMER STREET HILL'S POND						$\left  \right $							8	7		+		 		+	15 15	Low
OF-35 OF-36	Y	71 BEVERLY RD	LOWER MYSTIC LAKE		1							1	1	1	1	8	7	1		1				15	Low
OF-380	Y	BEHIND 49 THESDA ST	MCLENNEN PARK DETENTION BASIN										1			8	7							15	Low
OF-381	Y	BEHIND 35 THESDA ST	MCLENNEN PARK DETENTION BASIN													8	7				 			15	Low
OF-55	Y	24 LAKEVIEW	SPY POND	1	I	I	L				L	L	I	L	L	8	7	I			 			15	Low

					Dry Weather Ranking Criteria																				
Temporary Outfall ID	Regulated	Location	Recieving Water	Applicable Illicit Discharge Related Water Quality Impairments	Undeveloped Area	Athletic Fields/Parks/Green Space w/o Services	Cross Country Through Undeveloped Areas	Known/Suspected Illicits	Sampling Prior to 2016 shows Sewer Input	Discharge to Drinking Water Source/Swimming Area	Discharge to Other Contact Recreation	Discharge Complaints	Approved TMDL for Bacteria	Water Quality Limited Water for E.Coli Bacteria	Poor Recieving Water Quality	Sewers > 40 years old	Infrastructure > 40 years old	Septic Systems > 30 years old	Septic to Sewer	Culverted Streams	Density of Generating Sites	Other Relevant Factors	2016 MS4 Sampling Shows Sewer Input	Dry Weather Ranking	Priority Category (Problem > 30, 30 ≥ High > 15, Low ≤ 15)
05.64			CDV DOND		0	0	0	500	300	200	100	25	20	15	10	8	7	6	5	4	3	TBD	75		
OF-61	Y	210 PLEASANT ST	SPY POND													8	7							15	Low
OF-7	Y	0 LAKE SHORE DR	LOWER MYSTIC LAKE													8	7				-			15	Low
OF-70 OF-76	Y V	28 MYSTIC BANK 34 GOULD RD	LOWER MYSTIC LAKE SPY POND													8	7				-			15 15	Low
OF-78	Y	NW OF 39 HAYES STREET	LOWER MYSTIC LAKE			ł										8	7							15	Low
OF-78 OF-81	Y	0 HOPKINS RD	SPY POND			ł										8	7							15	Low
OF-81 OF-83	v v	459 MYSTIC ST	UNNAMED STREAM THROUGH WINCHESTER C.C.			ł										8	7							15	Low
OF-85	Y	52 FAIRVIEW AVE	LOWER MYSTIC LAKE													8	7							15	Low
OF-85	v	61 SPY POND LN	SPY POND													8	7							15	Low
01-00			SITTOND													0	,								2000
DCR OUTFALL W	ITH ARLINGTO	N CATCHMENT				1																			
OF-57	Y	ACROSS FROM PARK ST AT CORAL ST	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7							30	High
		INGTON CATCHMENT																							4
OF-65	Y	ACROSS FROM PARK ST AT CORAL ST	MYSTIC RIVER													8	7							15	Low
PRIVATE OUTEA		IGTON CATCHMENT			-	-											-		-						
OF-308	Y	1321 MASS AVE	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7			4				34	Problem
OF-261	v	8 DUDLEY ST	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7		1		3			33	Problem
OF-58	Y	LEXINGTON, MA	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
OF-106	Ŷ	25 RUSSELL PL	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7				-			30	High
OF-276	Y	16-38 DRAKE RD	MILL BROOK	303d: "Waters Requiring a TMDL"										15		8	7							30	High
OF-145	Y	6 SHERATON PK	SPY POND													8	7							15	Low
OF-73	Y	30 SPY POND PKWY	SPY POND													8	7							15	Low
OF-77	Y	36 PEABODY RD	SPY POND													8	7							15	Low
																									4
	ON WITH ARLI	INGTON CATCHMENT																							4
INT-915	Y	RIVER ST AT MYSTIC VALLEY PKWY	MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7				3			33	Problem
INT-911		MYSTIC LAKE DR AT MYSTIC VALLEY PKWY	MYSTIC RIVER	303d: "Waters Requiring a TMDL"			-							15		8	7							30	High
INT-912 INT-914		MAYNARD ST AT MYSTIC VALLEY PKWY	MYSTIC RIVER MYSTIC RIVER	303d: "Waters Requiring a TMDL"										15		8	7							30	High
INT-914 INT-900	Y Y	RAWSON RD AT MYSTIC VALLEY PKWY 201 LAKE ST	SPY POND	303d: "Waters Requiring a TMDL"										15		8	7							30 15	High Low
INT-900	Y Y	RT.2 NEAR PLEASANT ST	SPY POND SPY POND			ł										8	7							15	Low
INT-902	Y	RT.2 NEAR PLEASANT ST	SPY POND			ł										8	7							15	Low
INT-902 INT-903	•	RT.2 SOUTH OF 34 VENNER RD	SPY POND SPY POND													8	7							15	Low
INT-904		RT.2 SOUTH OF 16 SPRING ST	SPY POND	1	<u> </u>	<u> </u>	+ +									8	7		1		1			15	Low
INT-909	Y	RT.2 SOUTH OF 106 SPRING ST	SPY POND		1	1			1							8	7		1					15	Low
INT-905	Ŷ	1 BREWSTER RD	ASSUMED OUTFALL AT BELMONT GOLF COURSE	1												8	7							15	Low
INT-906	Y	DOW AVE AT CONCORD TURNPIKE	UNKNOWN, BELMONT LINE													8	7							15	Low
INT-907	Y	EAST OF DOW AVE AT CONCORD TURNPIKE	UNKNOWN, BELMONT LINE			1			1							8	7							15	Low
INT-908	Ŷ	283 FLORENCE AVE	UNKNOWN, BELMONT LINE			Ì										8	7		1					15	Low
INT-910	Y	HAYES ST AT MYSTIC VALLEY PKWY	LOWER MYSTIC LAKE			İ			1			l	l			8	7	l	İ					15	Low
INT-918	Y	EAST END OF BOWMAN ST	ASSUMED OUTFALL AT BELMONT GOLF COURSE													8	7							15	Low

# SYSTEM VULNERABILITY FACTOR ASSESSMENT FOR OUTFALLS AND INTERCONNECTIONS

ARLINGTON, MASSACHUSETTS

Outfall ID	Recieving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings	Sanitary Lines with Underdrains	Inadequate LOS	Former Combined Sewers	Sanitary Sewer Defects	SSO Potential in Event of System Failures	Sanitary and Storm Drain Infrastructure > 40 years	Septic with Poor Soils or Water Table Separation	History of Board of Health Actions Addressing Septic Failure	Total Factor Points	Wet Weather Sampling?
ARLINGTON OWNED OUTFALLS	1														
OF-13	MILL BROOK	1		1	1	1			1		1			6	YES
OF-21	SPY POND	1			1	1			1		1			5	YES
OF-273	MILL BROOK			1	1	1			1		1			5	YES
OF-29	MILL BROOK	1			1	1			1		1			5	YES
OF-32	MILL BROOK			1	1	1			1		1			5	YES
OF-54	MYSTIC RIVER	1		1	1				1		1			5	YES
OF-60	MILL BROOK			1	1	1			1		1			5	YES
OF-63	MILL BROOK		1	1	1				1		1			5	YES
OF-70	LOWER MYSTIC LAKE	1		1	1				1		1			5	YES
OF-74	MILL BROOK			1	1	1			1		1			5	YES
OF-10	MILL BROOK				1	1			1		1			4	YES
OF-104	MILL BROOK				1	1			1		1			4	YES
OF-14	UPPER MYSTIC LAKE			1	1				1		1			4	YES
OF-15	MILL BROOK				1	1			1		1			4	YES
OF-165	ALEWIFE BROOK			1	1				1		1			4	YES
OF-18	SPY POND			1	1				1		1			4	YES
OF-2	SPY POND				1	1			1		1			4	YES
OF-223	MILL BROOK				1	1			1		1			4	YES
OF-226	MILL BROOK				1	1			1		1			4	YES
OF-256	MILL BROOK			1	1				1		1			4	YES
OF-31	MILL BROOK				1	1			1		1			4	YES
OF-33	ALEWIFE BROOK				1	1			1		1			4	YES
OF-34	MILL BROOK				1	1			1		1			4	YES
OF-46	MILL BROOK			1	1				1		1			4	YES
OF-47	MILL BROOK				1	1			1		1			4	YES
OF-5	MILL BROOK				1	1			1		1			4	YES
OF-61	SPY POND				1	1			1		1			4	YES
OF-62	MILL BROOK	1			1				1		1			4	YES
OF-66	MILL BROOK				1	1			1		1			4	YES
OF-69	MILL BROOK				1	1			1		1			4	YES
OF-7	LOWER MYSTIC LAKE	1			1				1		1			4	YES

Outfall ID	Receiving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings	Sanitary Lines with Underdrains	Inadequate LOS	Former Combined Sewers	Sanitary Sewer Defects	SSO Potential in Event of System Failures	Sanitary and Storm Drain Infrastructure > 40 years	Septic with Poor Soils or Water Table Separation	History of Board of Health Actions Addressing Septic Failure	Total Factor Points	Wet Weather Sampling?
OF-71	MILL BROOK	1			1				1		1			4	YES
OF-76	SPY POND	1			1				1		1			4	YES
OF-83	UNNAMED STREAM AT WINCHESTER C.C.	1			1				1		1			4	YES
OF-9	MILL BROOK			1	1				1		1			4	YES
OF-93	MYSTIC RIVER	1			1				1		1			4	YES
OF-98	MILL BROOK				1	1			1		1			4	YES
AOF-4003	MILL BROOK				1				1		1			3	YES
OF-1	SPY POND				1				1		1			3	YES
OF-100	MILL BROOK				1				1		1			3	YES
OF-101	MILL BROOK				1				1		1			3	YES
OF-102	WETLAND OFF FOREST ST @ WINCHESTER LINE				1				1		1			3	YES
OF-103	MILL BROOK				1				1		1			3	YES
OF-105	MILL BROOK				1				1		1			3	YES
OF-107	SPY POND				1				1		1			3	YES
OF-108	SPY POND				1				1		1			3	YES
OF-11	MILL BROOK				1				1		1			3	YES
OF-154	WETLAND WEST OF REED ST AT LEXINGTON LINE				1				1		1			3	YES
OF-155	WETLAND WEST OF REED ST AT LEXINGTON LINE				1				1		1			3	YES
OF-156	WETLAND OFF FOREST ST AT WINCHESTER LINE				1				1		1			3	YES
OF-16	LOWER MYSTIC LAKE				1				1		1			3	YES
OF-161	ALEWIFE BROOK				1				1		1			3	YES
OF-162	ALEWIFE BROOK				1				1		1			3	YES
OF-163	ALEWIFE BROOK				1				1		1			3	YES
OF-164	ALEWIFE BROOK				1				1		1			3	YES
OF-167	ALEWIFE BROOK				1				1		1			3	YES
OF-168	ALEWIFE BROOK				1				1		1			3	YES
OF-170	ALEWIFE BROOK				1				1		1			3	YES
OF-171	ALEWIFE BROOK				1				1		1			3	YES
OF-178	MILL BROOK		1		1				1		1	1		3	YES
OF-179	MILL BROOK				1				1		1			3	YES
OF-184	MILL BROOK		1		1				1		1	1		3	YES
OF-189	MILL BROOK		1		1				1		1	1		3	YES
OF-191	MILL BROOK		1		1				1		1	1		3	YES
OF-196	MILL BROOK				1				1		1	1		3	YES
OF-198	MILL BROOK				1				1		1			3	YES
OF-199	MILL BROOK				1				1		1			3	YES

Outfall ID	Receiving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings	Sanitary Lines with Underdrains	Inadequate LOS	Former Combined Sewers	Sanitary Sewer Defects	SSO Potential in Event of System Failures	Sanitary and Storm Drain Infrastructure > 40 years	Septic with Poor Soils or Water Table Separation	History of Board of Health Actions Addressing Septic Failure	Total Factor Points	Wet Weather Sampling?
OF-20	SPY POND				1				1		1			3	YES
OF-208	MILL BROOK				1				1		1			3	YES
OF-217	MILL BROOK				1				1		1			3	YES
OF-22	SPY POND				1				1		1			3	YES
OF-23	SPY POND				1				1		1			3	YES
OF-230	MILL BROOK				1				1		1			3	YES
OF-233	MILL BROOK				1				1		1			3	YES
OF-24	SPY POND				1				1		1			3	YES
OF-243	MILL BROOK				1				1		1			3	YES
OF-246	MILL BROOK				1				1		1			3	YES
OF-25	SPY POND				1				1		1			3	YES
OF-251	MILL BROOK				1				1		1			3	YES
OF-254	MILL BROOK				1				1		1			3	YES
OF-260	MILL BROOK				1				1		1			3	YES
OF-263	MILL BROOK				1				1		1			3	YES
OF-269	MILL BROOK				1				1		1			3	YES
OF-27	ALEWIFE BROOK				1				1		1			3	YES
OF-274	MILL BROOK				1				1		1			3	YES
OF-277	MILL BROOK				1				1		1			3	YES
OF-279	MILL BROOK				1				1		1			3	YES
OF-28	ALEWIFE BROOK				1				1		1			3	YES
OF-280	MILL BROOK				1				1		1			3	YES
OF-281	MILL BROOK				1				1		1			3	YES
OF-284	MILL BROOK				1				1		1			3	YES
OF-286	MILL BROOK				1				1		1			3	YES
OF-289	MILL BROOK				1				1		1			3	YES
OF-290	MILL BROOK				1				1		1			3	YES
OF-294	MILL BROOK				1				1		1			3	YES
OF-3	WETLAND OFF DOROTHY RD / CAMBRIDGE LINE				1				1		1			3	YES
OF-30	MILL BROOK				1				1		1			3	YES
OF-300	MILL BROOK		1		1				1		1			3	YES
OF-302	MILL BROOK		1		1				1		1			3	YES
OF-311	MILL BROOK				1				1		1			3	YES
OF-327	MILL BROOK				1				1		1			3	YES
OF-328	MILL BROOK				1				1		1			3	YES
OF-342	MCLENNEN PARK DETENTION BASIN				1				1		1			3	YES

Outfall ID	Receiving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings	Sanitary Lines with Underdrains	Inadequate LOS	Former Combined Sewers	Sanitary Sewer Defects	SSO Potential in Event of System Failures	Sanitary and Storm Drain Infrastructure > 40 years	Septic with Poor Soils or Water Table Separation	History of Board of Health Actions Addressing Septic Failure	Total Factor Points	Wet Weather Sampling?
OF-344	MCLENNEN PARK DETENTION BASIN				1				1		1			3	YES
OF-347	WETLAND OFF SUMMER STREET				1				1		1			3	YES
OF-35	HILL'S POND				1				1		1			3	YES
OF-353	MYSTIC RIVER				1				1		1			3	YES
OF-36	LOWER MYSTIC LAKE				1				1		1			3	YES
OF-366	MILL BROOK				1				1		1			3	YES
OF-367	MILL BROOK				1				1		1			3	YES
OF-37	MILL BROOK				1				1		1			3	YES
OF-370	MILL BROOK				1				1		1			3	YES
OF-38	MILL BROOK				1				1		1			3	YES
OF-380	MCLENNEN PARK DETENTION BASIN				1				1		1			3	YES
OF-381	MCLENNEN PARK DETENTION BASIN				1				1		1			3	YES
OF-39	ALEWIFE BROOK				1				1		1			3	YES
OF-44	MYSTIC RIVER				1				1		1			3	YES
OF-49	MILL BROOK				1				1		1			3	YES
OF-50	MILL BROOK				1				1		1			3	YES
OF-51	MYSTIC RIVER				1				1		1			3	YES
OF-52	MYSTIC RIVER				1				1		1			3	YES
OF-55	SPY POND				1				1		1			3	YES
OF-6	MILL BROOK				1				1		1			3	YES
OF-67	MILL BROOK				1				1		1			3	YES
OF-68	MILL BROOK				1				1		1			3	YES
OF-72	MILL BROOK				1				1		1			3	YES
OF-78	LOWER MYSTIC LAKE				1				1		1			3	YES
OF-8	MILL BROOK				1				1		1			3	YES
OF-80	MILL BROOK				1				1		1			3	YES
OF-81	SPY POND				1				1		1			3	YES
OF-84	MILL BROOK				1				1		1			3	YES
OF-85	LOWER MYSTIC LAKE				1				1		1			3	YES
OF-86	SPY POND				1			l	1		1			3	YES
OF-87	ALEWIFE BROOK			1	1			l	1		1			3	YES
OF-88	SPY POND				1				1		1			3	YES
OF-89	ALEWIFE BROOK				1			l	1		1			3	YES
OF-90	MYSTIC RIVER				1			l	1		1			3	YES
OF-91	MILL BROOK				1			l	1		1			3	YES
OF-92	MILL BROOK	1			1				1		1			3	YES

Outfall ID	Receiving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings	Sanitary Lines with Underdrains	Inadequate LOS	Former Combined Sewers	Sanitary Sewer Defects	SSO Potential in Event of System Failures	Sanitary and Storm Drain Infrastructure > 40 years	Septic with Poor Soils or Water Table Separation	History of Board of Health Actions Addressing Septic Failure	Total Factor Points	Wet Weather Sampling?
OF-94	MYSTIC RIVER				1				1		1			3	YES
OF-99	MYSTIC RIVER				1				1		1			3	YES
OF-56	NO NAME BROOK TO MILL BROOK					1									
DCR OUTFALL WITH ARLINGT	I FON CATCHMENT														
OF-57	MYSTIC RIVER					1			1		1			3	YES
MASSDOT OUTFALL WITH AR	LINGTON CATCHMENT														
OF-65	SPY POND			1		1			1		1			4	YES
PRIVATE OUTFALL WITH ARL		1		1					4		1			-	VEC
OF-261	MILL BROOK	1		1	1	1			1		1			5	YES
OF-308 OF-58	MILL BROOK			1	1	1			1		1			5	YES YES
OF-58 OF-106	MILL BROOK MILL BROOK				1	1			1		1			4	YES
OF-100 OF-145	SPY POND				1				1		1			3	YES
OF-73	SPY POND				1				1		1			3	YES
OF-77	SPY POND				1				1		1			3	YES
OF-276	MILL BROOK				-				1		1			2	YES
INTERCONNECTION WITH AR															
INT-902	SPY POND			1	1	1			1		1			5	YES
INT-907	UNKNOWN, BELMONT LINE		1	1	1				1		1		-	5	YES
INT-903	SPY POND	1			1				1		1			4	YES
INT-904	SPY POND	-		1	1				1		1			4	YES
INT-906				1	1				1		1			4	YES
INT-909 INT-912	SPY POND MYSTIC RIVER	1		1	1				1		1			4	YES YES
INT-900	SPY POND				1				1		1			3	YES
INT-901	SPY POND SPY POND		-		1				1		1			3	YES
INT-905	ASSUMED OUTFALL AT BELMONT GOLF COURSE				1				1		1			3	YES
INT-908	UNKNOWN, BELMONT LINE	1			1				1		1		<u> </u>	3	YES
INT-910	LOWER MYSTIC LAKE				1				1		1		1	3	YES
INT-911	MYSTIC RIVER				1				1		1		1	3	YES
INT-914	MYSTIC RIVER				1				1		1		1	3	YES
INT-915	MYSTIC RIVER	1	1		1				1		1		1	3	YES
INT-918	ASSUMED OUTFALL AT BELMONT GOLF COURSE		1		1				1		1			3	YES



TOWN OF ARLINGTON Department of Public Works 51 Grove Street Arlington, Massachusetts 02476 Office(781) 316-3320 Fax (781) 316-3281

## 2019 MS4 Annual Report

## Public Education & Outreach Addendum

September 30, 2019

The following are the outreach notices performed during Permit year #1

### MS4 YEAR ONE (5/1/18 - 6/30/19) WEB POSTINGS

#### STORMWATER WEBPAGE

(https://www.arlingtonma.gov/departments/public-works/engineering/stormwater-information)

- 1. Tip Sheets
  - a. Tips Sheet (Added 6/27/19) Tips of Note:
    - i. Scoop Your Dog's Poop
    - ii. Catch Your Rain
    - iii. Test Your Soil and Read Your Fertilizer Labels
    - iv. Bag or Compost Your Grass
    - v. Bag Your Leaves
- 2. Additional Resources (5/1/18 6/30/19) Resources of Note:
  - a. Soak Up the Rain
  - b. Fertilizer
  - c. Managing Pet Waste

#### **ENGINEERING WEBPAGE NEW & NOTICES**

(https://www.arlingtonma.gov/departments/public-works/engineering)

- 1. Bioretention Basins Completed (Added 10/29/18)
- 2. Adopt a Catchbasin (Added 12/20/18)
- 3. Bag or Compost Your Grass (Added 6/27/19)