



Stormwater Management Plan

City of Woburn
May 2019

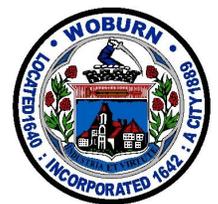


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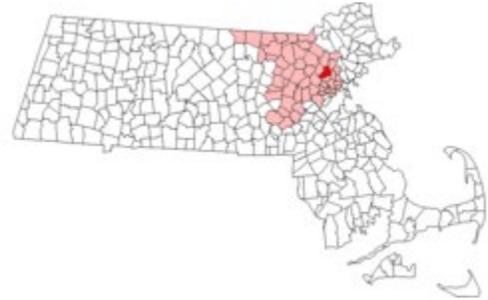
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Section 1

Introduction

The City of Woburn is located in Middlesex County in the northeastern portion of Massachusetts, approximately 9 miles northwest of Boston. It is abutted by the Town of Wilmington to the North, Towns of Reading and Stoneham to the East, Towns of Winchester and Lexington to the South and the Town of Burlington to the West. There are approximately 0.2 square miles of water within its 12.9 square mile footprint. According to the 2010 United States (U.S.) Census, Woburn is home to approximately 38,120 residents in more than 15,524 households.



Protecting the quality of Woburn’s water resources, including lakes, ponds, rivers, and groundwater supplies, is a priority for the City of Woburn. Pollutants from stormwater runoff are a contributing factor to the impairment of Woburn’s waterbodies, including high levels of total phosphorus and bacterial contamination. The City has developed stormwater policy initiatives, provided education to its businesses and citizens, publicly discussed the issues related to stormwater runoff, and offered many opportunities for residents and businesses to pitch in with clean-up efforts.

1.1 Purpose of this Plan

In an on-going effort to minimize stormwater impacts within Woburn, the City has developed this Stormwater Management Plan (SWMP). The SWMP is required by the U.S. Environmental Protection Agency’s (EPA’s) National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts (“Small MS4 General Permit”). The SWMP describes and details the activities and measures that will be implemented by Woburn to meet the terms and conditions of the permit.

The SWMP will be updated during the permit term as the City’s activities are modified, changed, or updated to meet permit conditions. Other requirements of the Small MS4 General Permit, such as a Notice of Intent (NOI), Authorization to Discharge letter, and documentation showing Endangered Species Act and Historic Properties eligibility criteria have been certified and are in the Appendices of this Plan.

1.2 Regulatory Requirements

1.2.1 Overview of EPA's NPDES MS4 Program

Through the NPDES program, the EPA nationally regulates the discharge of stormwater runoff that is transported into waters of the U.S. EPA's MS4 stormwater program was enacted in two phases:

- Phase I, issued in 1990, requires *medium* and *large* cities or certain counties with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges.
- Phase II, issued in 1999, requires regulated *small* MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges.

A **municipal separate storm sewer system (MS4)** is a conveyance or system of conveyances that is:

- owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.,
- designed or used to collect or convey stormwater (e.g., storm drains, pipes, ditches),
- not a combined sewer, and
- not part of a sewage treatment plant, or publicly owned treatment works (POTW).

In Massachusetts, the EPA Region 1 and the Massachusetts Department of Environmental Protection (MassDEP) jointly administer the municipal stormwater program. EPA and MassDEP originally authorized Woburn to discharge stormwater in 2003 under a *NPDES General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems*, known as the "2003 General Permit." Under this permit, the City has developed and implemented a Stormwater Management Program to reduce the contamination of stormwater runoff.

The 2003 General Permit expired in May 2008 but remained in full force and effect until a replacement permit was effective. The reissued *NPDES General Permit for Stormwater Discharges from Small MS4 in Massachusetts* substantially increases stormwater management requirements and mandates specific timelines for compliance. This permit was issued on April 13, 2016. On June 30, 2017, an EPA "stay" delayed the effective date of the General Permit until July 1, 2018. The MassDEP also adopted this delayed effective date.

This SWMP was developed to be consistent with the requirements of the 2016 Small MS4 General Permit for Massachusetts. Once implemented, the SWMP described herein will satisfy the requirements for compliance under the 2016 General Permit.

The reissued General Permit is intended to be more prescriptive than the 2003 General Permit, and to build upon the regulations already in place. The reissued General Permit substantially increases stormwater management requirements and mandates specific timelines for compliance. A few of the major differences for each minimum control measure are summarized in the following points:

- **Public Education and Outreach:** More specific messages required, and prescriptive deadlines compared to the 2003 General Permit.

- **Public Involvement and Participation:** No substantial change from the 2003 General Permit.
- **Illicit Discharge Detection and Elimination (IDDE) Program:** Complete drainage system mapping, building on outfall mapping developed under the 2003 General Permit. Add interconnections to the outfall inventory. Delineate catchment areas and prioritize catchment investigations. Perform dry weather screening and sampling of high priority and low priority MS4 interconnections and outfalls by the end of Year 3. Perform wet weather screening in the spring for the catchments that indicate the presence of one or more System Vulnerability Factors. Complete catchment investigations. For impaired waters without Total Maximum Daily Loads (TMDLs), implement a multi-step approach to address the discharges including BMPs, source identification, and an evaluation of retrofit feasibility.
- **Construction Site Stormwater Runoff Control:** If it does not already exist, add inspection and enforcement to the site plan review procedure.
- **Stormwater Management in New Development and Redevelopment:** For new development, retain the first 1 inch of runoff from all impervious surfaces on site, or provide pollutant removal with a BMP. For redevelopment, retain the first 0.80 inches of runoff from all impervious surfaces on site or provide pollutant removal with a BMP. Offsite mitigation may be used for redevelopment projects. Evaluate local code for consistency with smart growth principles and green infrastructure.
- **Good Housekeeping and Pollution Prevention:** Develop a program to repair and rehabilitate the MS4 infrastructure. Sweep/clean municipal streets once in the spring. Include all activities that occur at a municipal facility and potential pollutants associated with each activity in the stormwater pollution prevention plan (SWPPP) for the facility.

1.2.2 Woburn's Regulated MS4 Area

The City of Woburn meets EPA's regulatory threshold for Phase II of the MS4 program, and therefore is required to be covered under a NPDES permit for its stormwater discharges from the MS4 in its Urbanized Area. The City of Woburn is charged by the EPA with operating and maintaining its MS4 to manage stormwater runoff, as well as to protect public health and safety, preserve environmental resources, and safeguard City character.

Urbanized Areas (also known as "regulated areas") are defined by the latest U.S. decennial census. An urbanized area encompasses a densely settled territory that consists of core census block groups or blocks that have a population of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile or are included to link outlying densely settled territory with a densely settled urban core.¹ According to EPA Region 1, the area covered by either the 2000 census or the 2010 census are regulated by EPA under the MS4 program. The 2000 census was used to determine approximately 13 square miles (100%) of Woburn was urbanized and therefore regulated under the 2003 General Permit. On March 26, 2012,

¹ U.S. EPA. *Fact Sheet: Draft General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in Massachusetts*. September 2014. For a complete definition of Urbanized Area see Federal Register, August 24, 2011. Vol. 76 No. 164 p. 53030. URL: <http://www2.census.gov/geo/pdfs/reference/fedreg/fedregv76n164.pdf>.

the Census Bureau published the final listing of urbanized areas for the 2010 census, which made no changes to Woburn’s urbanized area. All of Woburn is regulated, as shown in Figure 1-2, and the SWMP must be implemented throughout the entire City.²

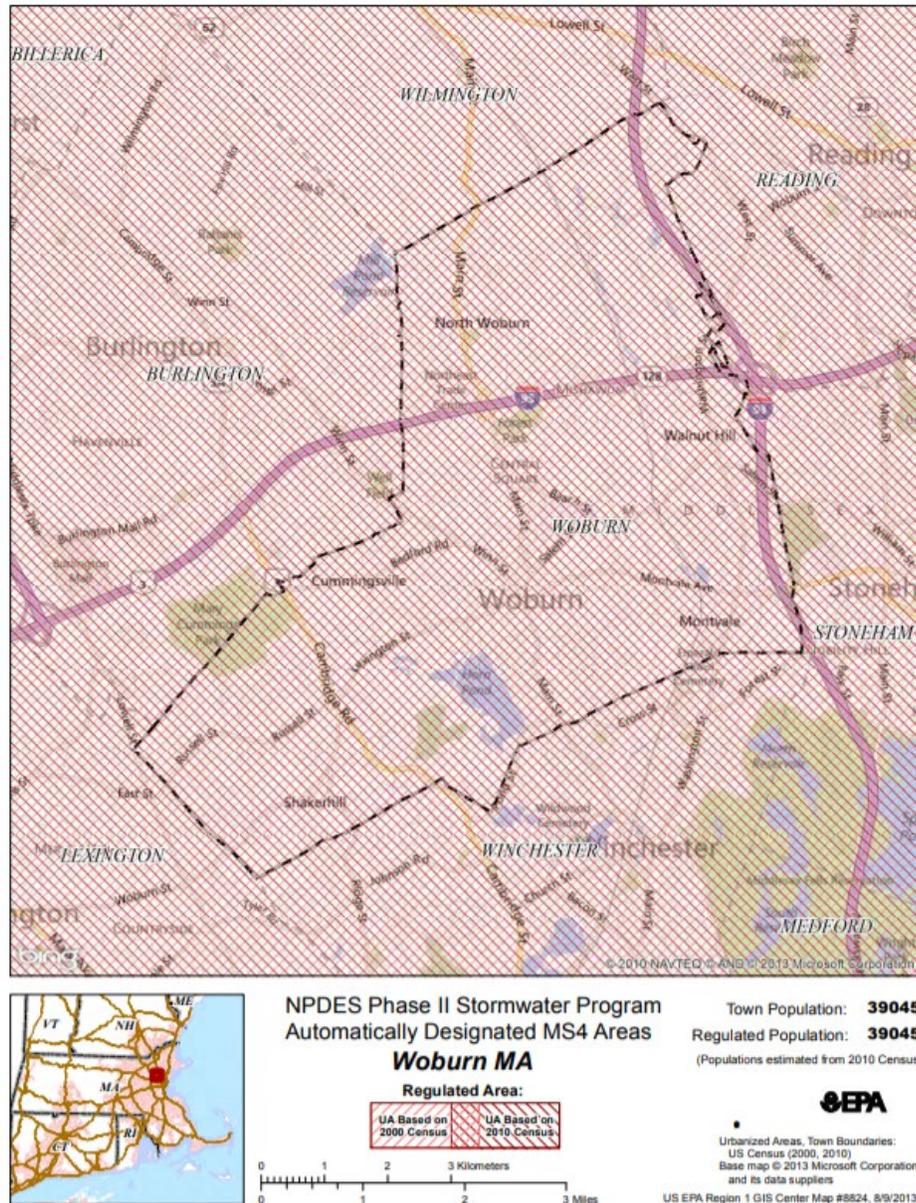


Figure 1-2 City of Woburn's Urbanized Area based on 2000 and 2010 census

1.3 Stormwater Management Program Team

Woburn’s stormwater management program is managed within the Engineering Department. Currently, stormwater management tasks are carried out by various City

² U.S. EPA, 2014.

departments and volunteer boards, including the Engineering Department, Department of Public Works, Conservation Commission, Planning Board, Board of Health and Building Commissioner. The Superintendent of Public Works is listed as the contact person for the City's program. The City Engineer manages a number of stormwater related tasks within the program. The Mayor signs the annual reports. Appendix B identifies the titles and names of individuals on the Stormwater Management Team and can be updated as the program progresses.

1.4 Summary of Woburn's Stormwater Management Program under the 2003 Small MS4 General Permit

The City of Woburn has achieved all measurable goals for the BMPs selected in the 2003 Notice of Intent and those added in subsequent years to reflect unplanned stormwater activities by the City. The following paragraphs include brief descriptions of current practices the City undertakes as part of its Stormwater Management Program.

1.4.1 MCM 1 – Public Education and Outreach

The City has provided education on stormwater runoff, the City's stormwater management program, environmental awareness and pollution prevention activities by distributing brochures, developing a stormwater website, maintaining pet waste receptacles and holding tours of the Horn Pond Water Treatment Plant for school classes. Earth Day and Conservation Day events are held most years during the springtime, where residents can learn more about environmentally-related topics, connect with local businesses and organization and help clean or maintain local conservation areas. The City's stormwater website includes general information on stormwater, the Mystic River watershed and local environmental activities. The Mystic River Watershed Association (MyRWA) also has provided extensive education and outreach over the previous permit term, including provide educational materials for the City to distribute and visiting the public schools to inform students about stormwater runoff and its impacts on local waterbodies

1.4.2 MCM 2 – Public Involvement and Participation

The City posts notices of public meetings, which complies with State and Local public meeting notice requirements. There are opportunities for residents of all ages to participate in Woburn's stormwater management program and pollution prevention, such as recycling used oil, proper disposal of household hazardous waste and used tires, recycling and tree planting. Local organizations also participate and include opportunities for involvement in the City's stormwater management program, including Stream Teams from the Mystic River Watershed Association (MyRWA), who regularly take water samples from the Aberjona River and publish the results on their website, and Woburn DPW Engineering Department interns who mark municipal storm drains.

1.4.3 MCM 3 – Illicit Discharge and Detection Elimination

Woburn has spent considerable effort on their IDDE Program. The City has mapped catch basins, manholes, outfalls and receiving waters, satisfying the mapping requirements of the 2003 General Permit and is well on the way to meeting the requirements in the 2016 Small MS4 General Permit. The City has developed an IDDE procedure, located and inventoried 743 stormwater discharge structures, 447 of which are public ("MS4") outfalls and completed dry weather screening for all public outfalls. The City also inspects new and updated sewer connections to confirm there are no illicit connections.

In 2007, Woburn adopted the drainage system ordinance *Stormwater, Illicit Discharge/Connection and Construction Site Management* which regulates illicit discharges and illegal connections to the MS4. The Superintendent of Public Works is identified as the enforcement authority.

City Staff have been trained, and are provided regular training opportunities, on illicit discharges and stormwater outfall investigations and sampling. City staff look for the presence of illicit discharges during regular operations activities. Additionally, student volunteers from the University of Massachusetts at Lowell have been trained on stormwater outfall investigations and sampling and have performed IDDE investigations alongside City staff since 2015.

1.4.4 MCM 4 – Construction Site Stormwater Runoff Control and MCM 5 – Post-Construction Stormwater Management

The *Stormwater, Illicit Discharge/Connection and Construction Site Management* Ordinance adopted in 2007 also addresses construction site and post-construction stormwater management. The ordinance requires that all new development and redevelopment projects greater than 20,000 square feet (0.46 acres) of land disturbance meet stormwater management standards and implement an erosion and sedimentation control plan and long term operation and maintenance plan or face penalties. Projects of one acre or greater of land disturbance require review and approval by the City Engineering Department. In addition, any project involving the removal or filling of more than 100 cubic yards of earth must obtain a Special Permit from the Woburn City Council. The Building Commissioner and the Police Department are the enforcement authorities of this ordinance. The City Engineer administers, implements and enforces the provisions of the ordinance.

The City also regulates construction site and post-construction stormwater runoff from new and redevelopment through its Wetlands Ordinance and Subdivision Rules & Regulations. The Board of Health, Conservation Commission, Engineering Department, and Planning Board review components of proposed development/redevelopment projects and, as applicable, perform inspections during and after construction to ensure erosion controls are in place and stormwater systems are functioning as designed.

1.4.5 MCM 6 – Pollution Prevention and Good Housekeeping

The City implements Good Housekeeping Standard Operating Procedures and numerous actions to reduce pollutant runoff from municipal operations, including catch basin cleaning, street sweeping, staff training, storing oil and hazardous materials properly, covering winter deicing materials, use of a dedicated vehicle washing station, cleaning and inspection of drain system, and implementing a DPW Facility SPCC.

1.4.6 Additional Permit Requirements

Groundwater Recharge and Infiltration: Through implementation of the *Stormwater, Illicit Discharge/Connection and Construction Site Management* ordinance, Wetlands Protection Ordinance, and Zoning Code, the City evaluates site conditions relative to stormwater infiltration. Additionally, the City of Woburn Zoning Code includes infiltration design requirements in the Groundwater Protection District which promote surface infiltration and require artificial recharge when lot impervious area exceeds specific percentages.

Public Drinking Water Supply Requirements: The City of Woburn Zoning Code ensures adequate drinking water quality and quantity, preserves and protects drinking water supplies, conserves natural resources, and prevents contamination of the environment. The City considers water supply sources (e.g. Horn Pond) and protection areas a priority for stormwater management, particularly IDDE activities.

Record Keeping: The City of Woburn maintains stormwater management program records that are organized by year and are stored in both paper and digital format.

Water Quality Impaired Waters and Total Maximum Daily Load (TMDL) Allocations: Woburn's stormwater program is addressing many of the current requirements for discharges to impaired waterbodies. Through implementation of its current stormwater program, the City is addressing the discharge of the pollutants of concern.

1.4.7 Building on BMPs Identified in 2003 NOI

According to Section 1.10.b of the 2016 General Permit, Woburn must modify or update the BMPs being implemented under the 2003 General Permit to meet the terms and conditions of part 2.3 of the 2016 General Permit. Appendix C includes a list of BMPs completed under the 2003 Small MS4 General Permit and BMPs included in the Notice of Intent and SWMP which comply with the 2016 Small MS4 General Permit. This list identifies how the intent of each 2003 BMP is being met under the 2016 BMPs (further description of 2016 BMPs is included in Section 3 of this SWMP).

1.5 General Eligibility Determination

Section 1.2.1 of the Small MS4 General Permit authorizes the discharge of stormwater from small MS4s if the MS4 is determined to meet general eligibility criteria:

- *Small MS4 within the Commonwealth of Massachusetts*
The City of Woburn is located within Middlesex County, Massachusetts.
- *Not a large or medium MS4 as defined in 40 CFR 122.26(b)(4) or (7)*
The population of Woburn is 38,120 according to the 2010 Census, the MS4 is not within a designated County, and the City has not been designated by the Director as part of a large or medium MS4.
- *Located either fully or partially within an urbanized area as determined by the 2010 Census or located in a geographic area designated by EPA as requiring a permit*

Figure 1-2 shows the Regulated MS4 Areas for the City of Woburn, based on 2000 and 2010 census listings. Woburn is fully within an urbanized area.

1.6 Special Eligibility Determinations

1.6.1 Endangered Species

On behalf of the City of Woburn, Tighe & Bond completed the National Endangered Species Eligibility Determination screening process in accordance with Part 1.9.1 and Appendix C of the Small MS4 General Permit, and determined that the City of Woburn meets **Criterion C**, where it has been determined that the City's stormwater discharges and discharge related activities will have "no affect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the US Fish and Wildlife

Service. Refer to Appendix D of the SWMP for supporting information, including the US Fish and Wildlife Service IPaC Trust Resources Report for the project area and the Endangered Species Act Certification.

1.6.2 Historic Properties

On behalf of the City of Woburn, Tighe & Bond completed the National Historic Preservation Act Eligibility Determination screening process in accordance with Part 1.9.2 and Appendix D of the Small MS4 General Permit and determined that the City of Woburn meets **Criterion A**, as the discharges do not have the potential to cause effects on historic properties. Please refer to Appendix E of the SWMP for supporting information, including a list of the federal- and state-listed historic areas, buildings, burial grounds, objects, and structures in the City of Woburn's regulated area downloaded from the Massachusetts Cultural Resource Information System (MACRIS).

1.7 Authorization for Woburn to Discharge Stormwater

The 2016 General Permit required a NOI be submitted within 90 days of the effective date of the permit. Woburn submitted their NOI on September 28, 2019. A copy of the NOI is included in Appendix A. Documentation of the City of Woburn's Authorization to Discharge by EPA will also be provided in Appendix A once issued by EPA. This written SWMP must be finalized within one year of the effective date of the permit.

Section 2 Water Resources

2.1 Waterbody Inventory

2.1.1 Watersheds

The City of Woburn is located primarily within the Boston Harbor Watershed. Small sections of the City are located within the Shawsheen River Watershed and Ipswich River Watershed, as shown in Figure 2-1. The portion of the City within the Boston Harbor Watershed is also considered the Mystic River Watershed, which is technically a sub-basin within the Boston Harbor Watershed, and drains to the Mystic River and eventually Boston Harbor.

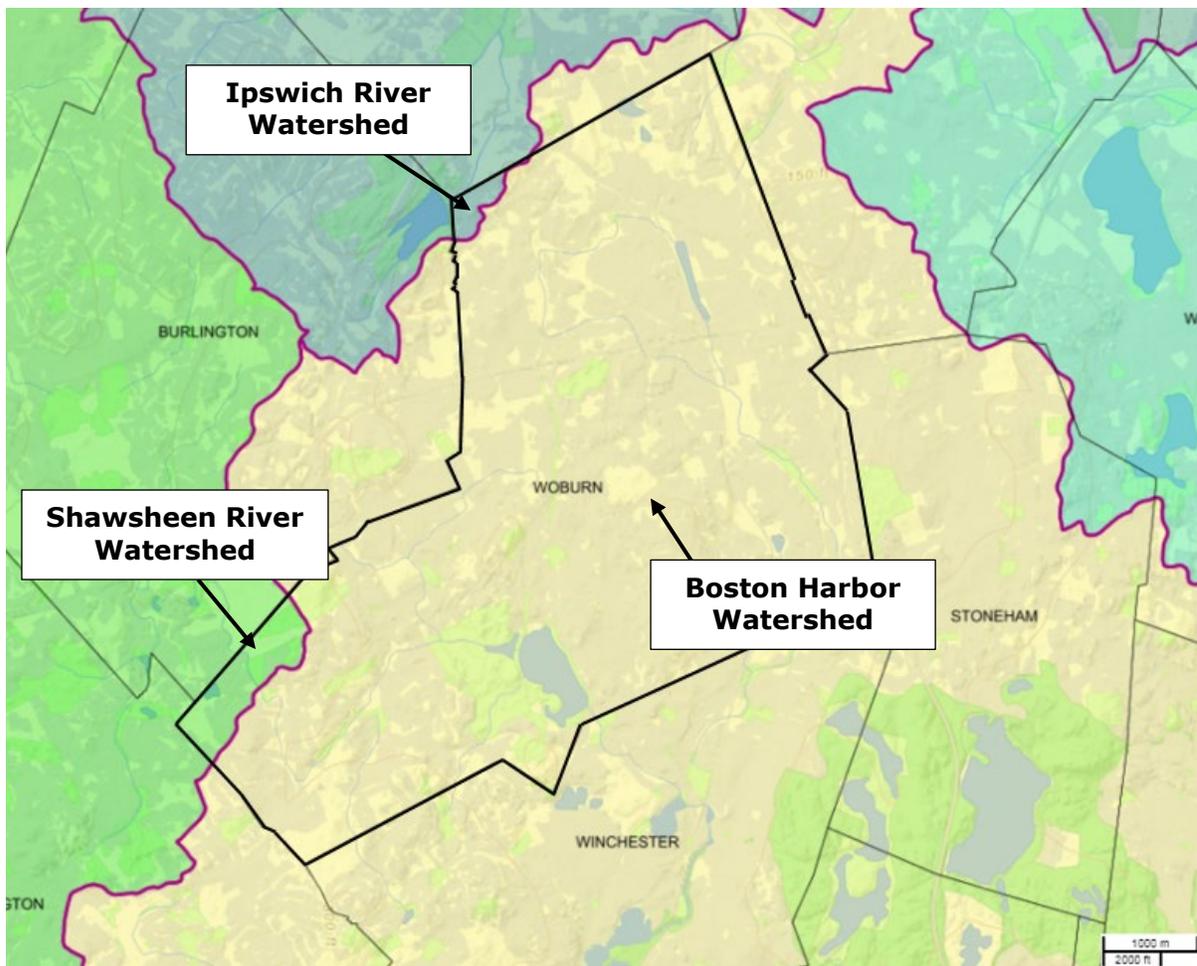


Figure 2-1 Major Watersheds in Woburn³

³ Created using the MassGIS OLIVER online mapping tool.
City of Woburn Stormwater Management Program

The Boston Harbor Watershed drains to Boston Harbor and the Atlantic Ocean. The watershed is bordered by the Ipswich River Watershed to the north, the Shawsheen and Charles River Watersheds to the west, the Taunton River and South Coastal Watersheds to the south and the North Coastal watershed to the north-northeast, as shown in Figure 2-2.

A small, southwestern portion of the City is within the Shawsheen Watershed, which is a fairly small watershed in eastern Massachusetts. The watershed is bordered by the SuAsCo Watershed to the west; the Ipswich River and Boston Harbor Watersheds to the east; the Merrimack River Watershed to the north; and the Charles River Watershed to the south, as shown in Figure 2-2.

A small, northwestern portion of the Woburn is within the Ipswich River Watershed, which is located in northeastern portion of Massachusetts and extends to the Atlantic Ocean. The watershed is bordered by the Shawsheen River Watershed to the west; the Parker River and Merrimack River Watersheds to the north; and the North Coastal and Boston Harbor Watersheds to the south, as shown in Figure 2-2.

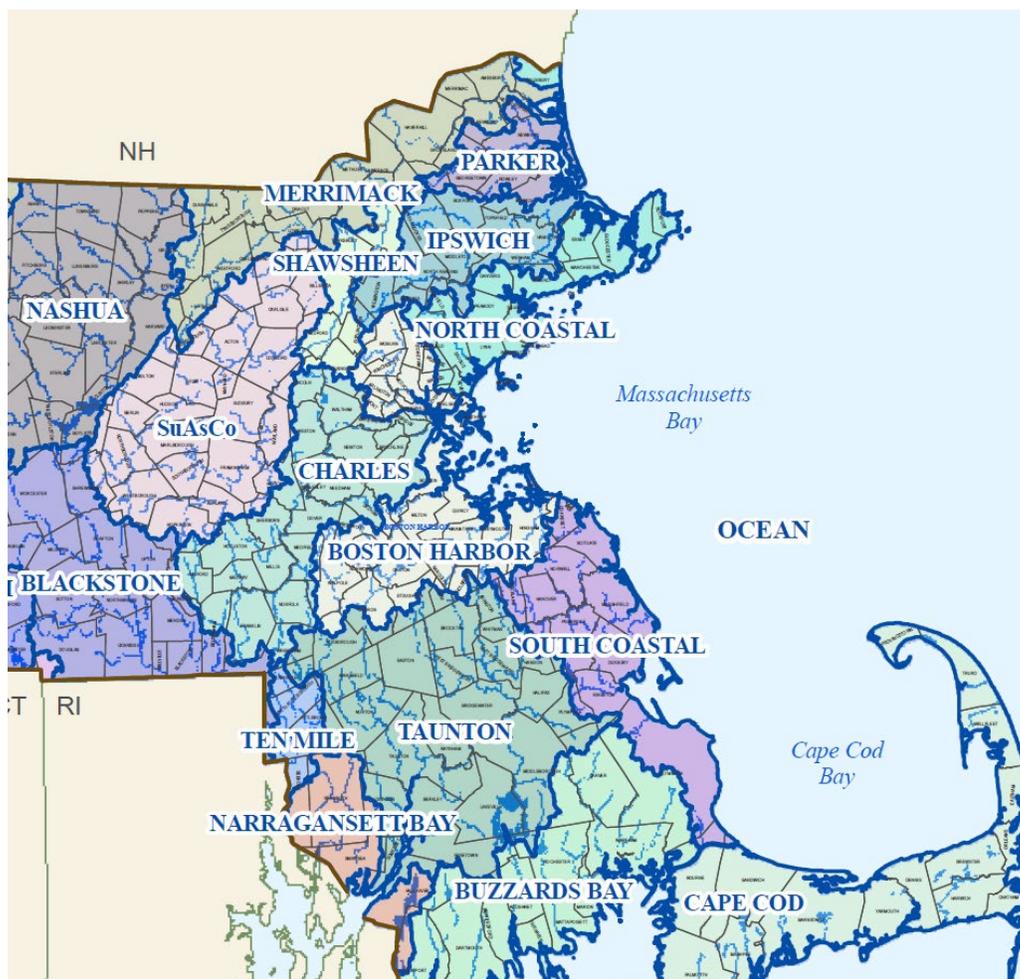


Figure 2-2 Watersheds in Eastern Massachusetts⁴

⁴ Adapted from Mass.gov, 2017.

2.1.2 Waterbodies

An inventory of waterbodies to which Woburn's MS4 discharges was completed as part of preparing the NOI included in Appendix A. Table 2-1 identifies the natural drainage basins within the City of Woburn for waterbodies that are included in the NOI. For waterbodies listed in the Massachusetts 2014 Integrated List of Waters, the segment ID has been included in parentheses after the waterbody name.

Table 2-1 Natural Drainage Basins and Waterbodies within the City of Woburn, Massachusetts

Major Basin	Waterbody
Boston Harbor Watershed: Mystic	Cummings Brook (MA71-10) ⁵
	Shaker Glen Brook (MA71-11) ⁵
	Aberjona River (MA71-01) ⁵
	Horn Pond (MA71019) ⁵
	Halls Brook ⁵
	Horn Pond Brook
	Middlesex Canal
	Sucker Brook ⁵
	Whittemore Pond ⁵
	Wetland Tributary to Little Brook
	Isolated Wetland off Courtland Circle
	Isolated Wetland off Day Circle
	Isolated Wetland off of Karen Road
	Isolated Wetland off of Kimball Court
	Isolated Wetland off of North Warren Street
	Isolated Wetland off of Pearl Street
	Isolated Wetland off of Revere Road
Isolated Wetland off of Virginia Ave	
Isolated Wetland off of Winter Road	
Isolated Wetland off of Chandler Street	
Isolated Wetland off of Presidential Way	
Ipswich River Watershed	Maple Meadow Brook (MA92-04)

2.1.3 Drinking Water

According to Section 3.0 of the 2016 Small MS4 General Permit, MS4s that discharge to public surface drinking water supply sources or their tributaries should consider these waters a priority in the implementation of the SWMP.

The City of Woburn produces two-thirds of its water supply from five wells within the Horn Pond area and supplies the remaining one-third with water from the Massachusetts Water

⁵ Wetlands and tributaries to these waterbodies are also listed in the NOI and located in the City of Woburn.

Resources Authority (MWRA). Section 15 of the City’s Zoning Code prohibits activities with the potential to cause groundwater contamination within the Groundwater Protection District, including but not limited to earth removal, storage of solid waste, de-icing chemicals, animal manure and hazardous materials. A map of public drinking water supplies in Woburn and surrounding communities is shown in Figure 2-3.

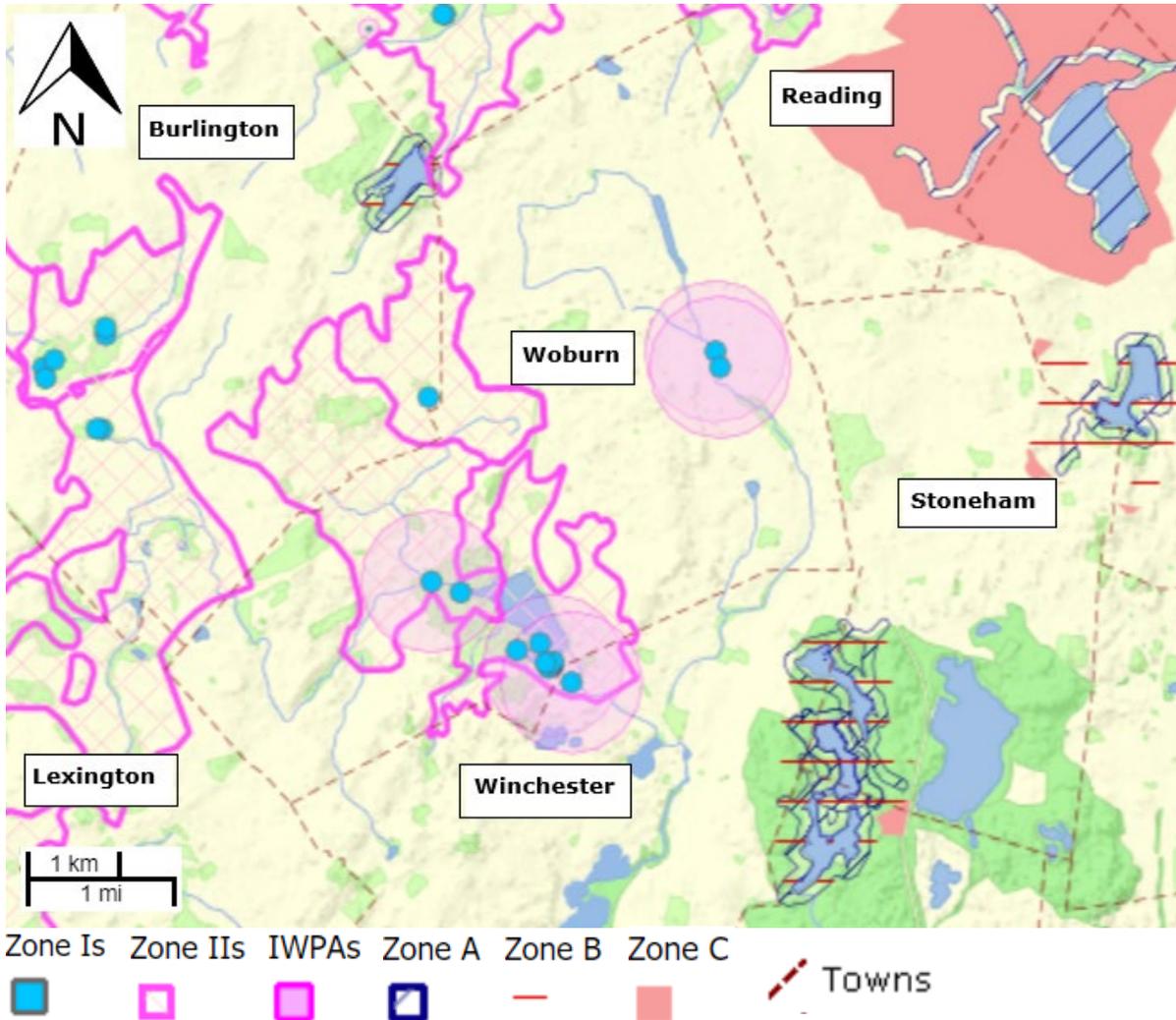


Figure 2-3 Public Drinking Water Supplies in Woburn, MA⁶

2.2 Water Quality

To meet the requirements of the Clean Water Act (CWA) Section 303(d), Massachusetts must assess and categorize surface waterbodies for attainment of designated uses (such as habitat for aquatic wildlife, aquatic wildlife consumption, and primary and secondary recreation), as well as identify any waterbodies that are not expected to meet surface water quality standards after implementation of controls. These sources are prioritized for

⁶ Created using the MassGIS OLIVER online mapping tool.
City of Woburn Stormwater Management Program

establishing TMDLs for use in permit setting. Massachusetts meets the CWA reporting requirements through the development of an Integrated List of Waters, in which waters in the Commonwealth are categorized for attainment of designated uses. The Integrated List assigns each waterbody or waterway with one of five categories:

- **Category 1:** waters that are unimpaired and not threatened for all designated uses
- **Category 2:** waters that are unimpaired for some uses and not assessed for others
- **Category 3:** waters with insufficient information to make assessments for any uses
- **Category 4a:** waters with a completed TMDL
- **Category 4c:** waters that are impaired or threatened for one or more uses, but not by a pollutant and therefore not requiring the calculation of a TMDL
- **Category 5:** waters that are impaired or threatened for one or more uses and requiring a TMDL

Waterbodies classified as Category 4a (waterbodies with a TMDL) and Category 5 (“water quality limited” waterbodies) do not meet CWA designated uses, and stormwater pollutants of concern will need to be addressed per General Permit requirements.

Water quality within the Ipswich River, Shawsheen River and Mystic River Watersheds was assessed by the Massachusetts Department of Environmental Protection, Division of Watershed Management in 2000⁷, 2000⁸, 2004-2008⁹, respectively. See the applicable MassDEP reports for further information.

2.2.1 2014 Integrated List of Waters

As of the date of this SWMP, Massachusetts waters categorized as impaired surface waters were identified in the Final Massachusetts Year 2014 Integrated List of Waters.¹⁰ Waterbodies identified on Integrated List within Woburn are listed in Table 2-2.

Table 2-2

Summary of 2014 Integrated List of Waters - Status of Woburn’s Receiving Waters

Category 5 Waters: Waters Requiring a TMDL		
Indicator contributing to impairment:	Horn Pond MA71019	Aberjona River MA71-01
Non-native Aquatic Plants*	X	
DDT in Fish Tissue	X	

⁷ MassDEP, Division of Watershed Management, “Ipswich River Watersheds 2000 Water Quality Assessment Report”.

⁸ MassDEP, Division of Watershed Management, “Shawsheen River Watersheds 2000 Water Quality Assessment Report”.

⁹ MassDEP, Division of Watershed Management, “Mystic River Watershed and Coastal Drainage Area 2004-2008 Water Quality Assessment Report”.

¹⁰ MassDEP, Bureau of Water Resources “Final Massachusetts Year 2014 Integrated List of Waters”. December 2015. Accessed online at: <http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf>.

Category 5 Waters: Waters Requiring a TMDL (continued)		
Indicator contributing to impairment:	Horn Pond MA71019	Aberjona River MA71-01
Excess Algal Growth	X	
Dissolved Oxygen	X	X
Phosphorus (Total)	X	X
Arsenic		X
E. coli		X
Physical substrate habitat alterations*		X
Ammonia (un-ionized)		X
Aquatic macroinvertebrates bioassessments		X
Sediment bioassays- chronic toxicity freshwater		X
Turbidity		X
Category 3 Waters: No Uses Assessed		
Cummings Brook MA71-10	Shaker Glen Brook MA71-11	

*TMDL not required (Non-pollutant)

Note that a draft 2016 Integrated List of Waters is available from MassDEP, which adds Pond Brook (MA71-16) as a Category 3 and places Cummings Brook and Shaker Glen Brook as Category 5 waters impaired for *E. coli*. However, as of the effective date of the General Permit, the 2016 Integrated List of Waters had not been finalized and therefore is not yet the official EPA 303(d) list.

2.2.2 Pollutants of Concern

Based on the 2014 Integrated List of Waters, the pollutants of concern for Woburn's impaired waters related to stormwater include:

- Bacteria;
- Total Phosphorus;
- Dissolved Oxygen; and
- Turbidity.

BMPs to address pollutants of concern in Woburn are described in Section 4 and more information about these pollutants and their potential sources is included in Appendix F.

2.2.3 Applicable TMDLs

Two waterbodies within the City of Woburn are identified as Category 5 waters (impaired and requiring a TMDL), as described in Section 2.5.1. No TMDL has been finalized for either waterbody.

Section 3

Best Management Practices (BMPs) to Address Minimum Control Measures (MCMs)

This section includes descriptions of each BMP included in Woburn’s NOI, an implementation plan, guidelines and resources, and lists of important documentation to best address the MCMs in the General Permit.

3.1 MCM 1: Public Education and Outreach

Objective: *The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced.*

This section of the SWMP describes how to comply with the Public Education and Outreach requirements in General Permit Section 2.3.2.

3.1.1 MCM 1 BMPs from NOI

BMP ID	BMP Media/ Category	BMP Description	Targeted Audience	Responsible Department / Parties	Measurable Goal	Beginning Year of BMP Implementation
1A	Multi-media methods (including web, direct mail, and print materials at public buildings)	Education and outreach on stormwater management topics of significance in Woburn (including proper pet waste management, proper use of pesticides and fertilizers). Educational topics will include but are not limited to those in Part 2.3.2.d.i	Residents	DPW / Engineering with support from MyRWA	Distribute a minimum of two (2) educational messages spaced at least a year apart	2018 (PY1)

**Section 3 Best Management Practices (BMPs) to Address
Minimum Control Measures (MCMs)**

BMP ID	BMP Media/ Category	BMP Description	Targeted Audience	Responsible Department / Parties	Measurable Goal	Beginning Year of BMP Implementation
1B	Multi-media methods (including web and direct mail)	Education and outreach on stormwater management topics of significance in Woburn (including proper lawn maintenance, parking lot sweeping). Educational topics will include but are not limited to those in Part 2.3.2.d.ii	Businesses, Institutions, and Commercial Facilities	DPW / Engineering with support from MyRWA	Distribute a minimum of two (2) educational messages spaced at least a year apart	2019 (PY2)
1C	Multi-media methods (including web and permit application guidance)	Education and outreach on stormwater management topics of significance in Woburn (including proper erosion and sedimentation control, permit requirements, and design standards). Educational topics will include but are not limited to those in Part 2.3.2.d.iii	Developers (Construction)	DPW / Engineering with support from MyRWA	Distribute a minimum of two (2) educational messages spaced at least a year apart	2018 (PY1)
1D	Multi-media methods (including web and direct mail)	Education and outreach on stormwater management topics of significance in Woburn (including pollution prevention, illicit discharges, Multi-Sector General Permit). Educational topics will include but are not limited to those in Part 2.3.2.d.iv	Industrial Facilities	DPW / Engineering with support from MyRWA	Distribute a minimum of two (2) educational messages spaced at least a year apart	2019 (PY2)

3.1.2 MCM 1 Implementation Plan

BMP 1A Education and Outreach to Residents

Education and outreach goals for BMP 1A include:

- Increasing awareness of the impact of human activities on stormwater runoff and water quality;
- Changing residential behavior over time; and
- Reaching broad audiences with information that appeals to a diverse public.

Woburn will provide educational materials and general outreach to residents for stormwater management topics relevant to the City. Topics may include:

- Information about Woburn's impaired waterbodies;
- Effects of outdoor activities such as lawn care on water quality (use of pesticides, herbicides, and fertilizers);
- Benefits of appropriate on-site infiltration of stormwater;
- Effects of automotive work and car washing on water quality; and
- Proper disposal of swimming pool water.

The City will build upon the existing public education and outreach program to disseminate educational materials to residents via the internet, direct mailing, and/or print materials at public buildings. The City will coordinate public educational strategies with local watershed groups and take advantage of existing materials wherever possible. Section 3.1.5 includes free resources the City can take advantage of to supplement the program.

BMP 1B Education and Outreach to Businesses, Institutions, and Commercial Facilities

Education and outreach goals for BMP 1B include:

- Increasing awareness of business practices that may contribute to stormwater pollution;
- Changing behavior over time; and
- Improving compliance with local code.

Woburn will provide educational materials and general outreach to businesses, institutions, and commercial facilities within the City for stormwater management topics relevant to Woburn. Topics may include:

- Information about Woburn's impaired waterbodies;
- Proper lawn maintenance (use of pesticides, herbicides and fertilizer);
- Benefits of appropriate on-site infiltration of stormwater;
- Building maintenance (use of detergents);
- Minimizing the use of salt or other de-icing and anti-icing materials;
- Proper storage of salt or other de-icing/anti-icing materials (cover/prevent runoff to storm system and contamination to groundwater);

- Proper storage of materials (emphasize pollution prevention);
 - Proper management of waste materials and dumpsters (cover and pollution prevention);
 - Proper management of parking lot surfaces (sweeping);
 - Proper car care activities (washing of vehicles and maintenance); and
 - Proper disposal of swimming pool water by entities such as motels, hotels, and health and country clubs (discharges must be dechlorinated and otherwise free from pollutants).
- Other topics required for impaired waterbodies and applicable TMDLs are described in Section 4.

The City will build upon the existing public education and outreach program to disseminate educational materials to businesses, institutions, and commercial facilities within the City via the internet, direct mailing, and/or print materials at public buildings. The City will coordinate public educational strategies with local watershed groups and take advantage of existing materials wherever possible. Section 3.1.5 includes free resources the City can take advantage of to supplement the program.

BMP 1C Education and Outreach to Developers

Education and outreach goals for BMP 1C include:

- Increasing awareness of the impact of construction activities on stormwater runoff and water quality;
- Changing developer behavior over time; and
- Improving compliance with local code.

Woburn will provide educational materials and general outreach to developers for stormwater management topics relevant to Woburn. Topics may include:

- Information about Woburn's impaired waterbodies;
- Proper sediment and erosion control management practices;
- Information about Low Impact Development (LID) principles and technologies; and
- Information about EPA's construction general permit (CGP).

The City will build upon the existing public education and outreach program to disseminate educational materials to developers via the internet and/or attaching educational materials to permit applications. The City will coordinate public educational strategies with local watershed groups and take advantage of existing materials wherever possible. Section 3.1.5 includes free resources the City can take advantage of to supplement the program.

BMP 1D Education and Outreach to Industrial Facilities

Education and outreach goals for BMP 1D include:

- Increasing awareness of industrial activities that may contribute to stormwater pollution;

- Changing behavior over time; and
- Improving compliance with local code.

Woburn will provide educational materials and general outreach to industrial facilities within City for stormwater management topics relevant to Woburn. Topics may include:

- Information about Woburn’s impaired waterbodies;
- Equipment inspection and maintenance;
- Proper storage of industrial materials (emphasize pollution prevention);
- Proper management and disposal of wastes;
- Proper management of dumpsters;
- Minimization of use of salt or other de-icing/anti-icing materials;
- Proper storage of salt or other de-icing/anti-icing materials (cover/prevent runoff to storm system and groundwater contamination);
- Benefits of appropriate on-site infiltration of stormwater runoff from areas with low exposure to industrial materials such as roofs or employee parking;
- Proper maintenance of parking lot surfaces (sweeping); and
- Requirements for coverage under EPA’s Multi-Sector General Permit (MSGP).

The City will build upon the existing public education and outreach program to disseminate educational materials to industrial facilities within City via the internet and/or direct mailing. The City will coordinate public educational strategies with local watershed groups and take advantage of existing materials wherever possible. Section 3.1.5 includes free resources the City can take advantage of to supplement the program.

3.1.3 MCM 1 Implementation Schedule

Outreach Method	PY1	PY2	PY3	PY4	PY5
Social Media	[Solid Blue Bar]				
Signage and brochures	[Solid Blue Bar]				
Targeted outreach	[Residents icon]		[Residents icon]		
Targeted outreach		[Businesses icon]		[Businesses icon]	
Targeted outreach	[Developers icon]		[Developers icon]		
Targeted outreach		[Industrial icon]		[Industrial icon]	
Survey	[All Audiences icon]		[All Audiences icon]		[All Audiences icon]

[Residents icon]	Residents
[Businesses icon]	Businesses, Institutions, and Commercial Facilities
[Developers icon]	Developers
[Industrial icon]	Industrial Facilities
[All Audiences icon]	All Audiences

3.1.4 Public Education and Outreach Goals and Progress

Per Section 2.3.2.e of the General Permit, the public education and outreach program shall provide focused messages for specific audiences and show evidence that progress toward the goals of the program have been achieved. The following methods are anticipated to be used by the City to evaluate the effectiveness of the educational messages and overall education program:

- Quantify the number of each audience that is reached during direct mailings (e.g. # sent, and if any returned, #returned);
- Quantify the audience reached by social media posts related to stormwater (e.g. #hits, #retweets);
- Quantify the audience reached through catch basin markers with QR codes (e.g. # of people that visit website through scanning QR code);
- Quantify the number of meetings with Businesses related to stormwater issues and track number of attendees; and
- Track changes in behavior for specific issues addressed with education throughout the permit term (e.g., issues with erosion/sediment control during construction, pet waste bags found in catch basins, etc.) as these items arise

The above methods will be used to evaluate the effectiveness of the program, and may be modified during the permit term. Any revisions or additional methods developed after the date of this SWMP shall be tied to the defined goals of the program and the overall objective of **changes in behavior and knowledge**.

3.1.5 MCM 1 Guidelines and Resources

The following links include free or low-cost resources Woburn can use to supplement the Public Education program.

Mystic River Watershed Association

<https://mysticriver.org/the-watershed/>

Think Blue Massachusetts

<https://www.thinkbluemassachusetts.org/>

EPA Public Education

<https://cfpub.epa.gov/npstbx/>

EPA Stormwater Education Toolkit (SET)

<http://www.stormwater.ucf.edu/toolkit/>

EPA National Menu of BMPs for Stormwater

<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu>

MassDEP Public Education

<https://www.mass.gov/guides/stormwater-outreach-materials-to-help-citys-comply-with-the-ms4-permit>

Developing an Effective Stormwater Education and Outreach Program for Your Community

http://www.urbanwaterslearningnetwork.org/wp-content/uploads/2016/04/Manual-Stormwater-Education-and-Outreach_2014.pdf

Northern Middlesex Stormwater Collaborative Resources

<http://www.nmstormwater.org/resources-stormwater-collaborative>

Northern Middlesex Stormwater Collaborative Education and Outreach Materials

<http://www.nmstormwater.org/education-and-outreach-materials>

Urban Waters

<http://www.nmstormwater.org/for-municipalities>

3.1.6 MCM 1 Checklist of Key Documentation

Documentation of BMP progress should be kept in Appendix H. The following checklist includes the required documentation for MCM 1. See Section 5 of this Plan for additional record keeping information.

- All educational materials provided to target audiences
- Distribution lists for target audiences
- Dates of distribution of educational materials
- Annually track changes in social media subscription and use
- Note educational goals and opinion on effectiveness based on results tracked; modify education and outreach program if necessary

3.2 MCM 2: Public Involvement and Participation

Objective: *The permittee shall provide opportunities to engage the public to participate in the review and implementation of the SWMP.*

This section of the SWMP describes how to comply with the Public Involvement and Participation requirements in General Permit Section 2.3.3.

3.2.1 MCM 2 BMPs from NOI

BMP ID	BMP Category	BMP Description	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
2A	Public Review	SWMP review (Plan and reports available on web and public meetings)	DPW/Engineering	Annually provide the public with an opportunity to participate in the review and implementation of the SWMP	2018 (PY1)
2B	Public Participation	Provide opportunities for public involvement and participation in Woburn's stormwater program (including clean up events and school programs). Specific activities, schedule, and lead departments are included in the SWMP.	DPW/ Board of Health/Conservation Commission with support from MyRWA	Ongoing compliance	2018 (PY1)
2C	Public Review	Continue Stormwater Working Group (DPW, Engineering, Conservation, Planning, Board of Health, Water/Sewer, Facilities, GIS, Schools)	Engineering	At a minimum, stormwater group will meet annually.	2018 (PY1)

3.2.2 MCM 2 Implementation Plan

BMP 2A Stormwater Management Plan Public Review

Woburn shall provide the public with an opportunity to review this Stormwater Management Plan prior to finalizing it, and with other opportunities to participate in the City's Stormwater Program on an annual basis.

While the Engineering Department and the DPW are the responsible parties for this BMP, multiple City Departments can help aid in successful implementation, as public participation in stormwater management initiatives often crosses Departments.

This SWMP will be presented at a public meeting on June 4, 2019 to solicit input from the general public. Additionally, the draft SWMP was posted online and available to the public. Documentation of these efforts is included in Appendix H.

BMP 2B Public Participation in Stormwater Management Program

Public involvement and participation goals for BMP 2B include:

- Increasing public involvement in, and knowledge of, Woburn's stormwater program; and
- Improving water quality through local clean up and waste collection events.

Woburn shall continue to provide notice for public meetings per Massachusetts General Law requirements, including meetings pertaining to the Stormwater Management Program.

The City shall continue to provide annual opportunities for public participation in the Program. These opportunities may include, but are not limited to:

- Stormwater-related events with school groups;
- Hazardous waste drop off day;
- Earth Day and Conservation Day celebrations;
- Yard waste collection days; and/or
- Stream clean ups.

Appendix F includes a document with helpful tips for organizing and conducting volunteer clean-up events that Woburn may reference. The City shall document all public participation activities in the Annual Reports, and documentation should seek to quantify results or impact to better evaluate the public involvement and participation program effectiveness.

BMP 2C Stormwater Working Group

The City has implemented a Stormwater Working Group, which meets on an as-needed basis. The Committee will continue to meet annually and/or as needed during the Permit term.

3.2.3 MCM 2 Implementation Schedule

BMP	PY1	PY2	PY3	PY4	PY5
2A Stormwater Management Plan Public Review	●	●	●	●	●
2B Public Participation in Stormwater Management Program	←→				
2C Stormwater Working Group	←→				

 = annual requirement
 = ongoing requirement

3.2.4 MCM 2 Guidelines and Resources

The following links include free or low-cost resources Woburn can use to supplement the Public Involvement program.

EPA National Menu of BMPs for Stormwater
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#inv>

EPA Evaluation of the Role of Public Outreach and Stakeholder Engagement in Stormwater Funding Decisions in New England: Lessons from Communities
<https://www.epa.gov/sites/production/files/2015-09/documents/eval-sw-funding-new-england.pdf>

Manchester Urban Ponds Restoration Program: Tips for Organizing and Conducting Volunteer Clean-up Events
 Available in Appendix F of this SWMP

Massachusetts Open Meeting Law Guide
<http://www.mass.gov/ago/docs/government/oml/oml-guide.pdf>

3.2.5 MCM 2 Checklist of Key Documentation

Documentation of BMP progress should be kept in Appendix H. The following checklist includes the required documentation for MCM 2. See Section 5 of this Plan for additional record keeping information.

- Public meeting dates and topics when stormwater management-related topic is discussed
- Dates of public participation activities and quantification of participation (such as number of volunteers/participants, number of bags collected, etc.)
- Meeting dates, topics, and attendees for Stormwater Working Group meetings

3.3 MCM 3: Illicit Discharge Detection and Elimination (IDDE) Program

Objective: *The permittee shall implement an IDDE program to systematically find and eliminate sources of non-stormwater discharges to its municipal separate storm sewer system and implement procedures to prevent such discharges.*

This section of the SWMP describes how to comply with the Illicit Discharge Detection and Elimination Program requirements in General Permit Section 2.3.4.

3.3.1 MCM 3 BMPs from NOI

BMP ID	BMP Category	BMP Description	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
3A	IDDE Ordinance	Complete. Continue to enforce and update if necessary.	Engineering	Track illicit discharges identified and removed.	2018 (PY1)
3B	SSO Inventory	Develop SSO inventory in accordance of permit conditions	Engineering	Complete within one (1) year of effective date of permit. Track # of SSOs identified and removed annually	2018 (PY1)
3C	Storm sewer system map	Improve map during IDDE Program implementation	Engineering	Update map within two (2) years of effective date of permit and complete full system map 10 years after effective date of permit	2018 (PY1)

**Section 3 Best Management Practices (BMPs) to Address
Minimum Control Measures (MCMs)**

BMP ID	BMP Category	BMP Description	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
3D	Written IDDE program	Update written IDDE Plan as necessary	Engineering	Complete within one (1) year of the effective date of permit and update as required	2018 (PY1)
3E	Assessment and Priority Ranking of Outfalls & Interconnections	Outfall/ Interconnection Inventory and Initial Ranking as part of BMP 3D	Engineering	Complete within one (1) year of the effective date of permit and update as necessary	2018 (PY1)
3E	Assessment and Priority Ranking of Outfalls & Interconnections	Dry Weather Outfall Screening & Sampling in accordance with IDDE Plan and permit conditions	Engineering	Complete three (3) years after effective date of permit. Track # of illicit discharges identified & volume removed. Summarize screening/ sampling results.	2018 (PY1)
3E	Assessment and Priority Ranking of Outfalls & Interconnections	Catchment Investigations according to IDDE Program and permit conditions	Engineering	Complete 10 years after effective date of permit. Track # and percentage of MS4 catchments evaluated. Track # of illicit discharges identified & volume removed. Summarize screening/sampling results.	2019 (PY2)
3F	Employee Training	Train employees on IDDE implementation	Engineering	Train annually. Track employees trained, training topic, date/time, and materials presented.	2018 (PY1)

3.3.2 MCM 3 Implementation Plan

BMP 3A IDDE Ordinance

The IDDE program shall include adequate legal authority to prohibit, investigate, and eliminate illicit discharges and implement enforcement procedures and actions. Woburn has adopted an ordinance entitled *Stormwater, Illicit Discharge/Connection and Construction Site Management* in January 2007. This ordinance prohibits illicit discharges to the City's drainage

system. The Building Commissioner and the Police Department serve as the enforcement agency for the ordinance.

The City will review the existing ordinance and regulations with respect to the 2016 General Permit and modify it if needed.

BMP 3B SSO Inventory

The City must identify all known locations where sanitary sewer overflows (SSOs) have discharged to the municipal drainage system within the past five (5) years and create an inventory that includes the following information:

- Location, date, time, and volume of each occurrence;
- Whether the discharge entered surface water or the MS4;
- Description, indicating known or suspected cause(s); and
- Mitigation and corrective measures planned and completed.

This inventory must be kept up to date and appended to this SWMP. Each municipal Department can aid in the development and maintenance of the inventory by reporting instances of SSOs found during field work to the DPW.

BMP 3C Storm Sewer System Map

A comprehensive map of Woburn's drainage system has been developed, and the City has met a large portion of the requirements of this BMP. City staff should continue to update the map as necessary to reflect newly discovered information, corrections or modifications, improved connectivity, and progress made.

BMP 3C outfall inventory is complete.

BMP 3D Written IDDE Program

Woburn will develop and implement an IDDE plan, which will include procedures and timelines developed in accordance with the 2016 General Permit. The City should continue to update and modify the Plan on an as-needed basis.

BMP 3E.1 Outfall/Interconnection Inventory and Initial Ranking

The City will assess and priority rank each outfall within the MS4 in terms of their potential to have illicit discharges and SSOs, and the related public health significance within three years of the effective date of the permit. Refer to Section 4 of this plan for additional prioritization criteria related to waters subject to a TMDL and public drinking water supply.

BMP 3E.2 Dry Weather Outfall/Interconnection Screening and Sampling

Field investigations must be completed during dry weather conditions to confirm whether any Low or High Priority outfalls have dry weather flow, which may be indicative of illicit connections/discharges. The initial catchment delineation and priority ranking must be updated by the end of Permit Year 3 based on the data gathered in the field. All data gathered during implementation of this BMP must be reported annually.

BMP 3E.2 is ongoing.

BMP 3E.3 Outfall/Interconnection Catchment Investigations

Each catchment associated with an outfall or interconnection within the MS4 must be investigated based on identified System Vulnerability Factors (SVF, i.e., the likelihood that illicit discharges/connections exist) in that particular area. For all catchments, key junction manholes shall be opened and inspected for evidence of illicit connections during dry weather conditions. For catchments with one or more SVF, wet weather monitoring must be completed. The City will identify the number of outfall catchments in the MS4 that have been evaluated using the catchment investigation procedure developed under BMP 3D. All data gathered during implementation of this BMP must be reported annually.

At the conclusion of field work for this BMP, the outfall/interconnection inventory should be updated and reprioritized for ongoing screening once every five years.

BMP 3E.3 is ongoing.

BMP 3F Employee Training

Employees involved in the IDDE Program must be trained annually on the Program, including how to recognize illicit discharges and SSOs in accordance with the IDDE Plan.

3.3.3 MCM 3 Implementation Schedule

EPA’s implementation timeline for the IDDE Program is available in Appendix F.

BMP	PY1	PY2	PY3	PY4	PY5
3A IDDE Ordinance	●				
3B SSO Inventory	●	●	●	●	●
3C Storm Sewer System Map	←—————●————→				
3D Written IDDE Program	●				
3E.1 Outfall/Interconnection Inventory and Initial Ranking	●				
3E.2 Dry Weather Screening and Sampling	←————→				
3E.3 Catchment Investigations		←————→			
3F Employee Training	●	●	●	●	●

✓	= BMP complete
●	= annual requirement or year due
←→	= ongoing requirement

3.3.4 MCM 3 Guidelines and Resources

The following links include free or low-cost resources Woburn can use to supplement the IDDE program.

**Center for Watershed Protection Illicit Discharge Detection and Elimination:
A Guidance Manual for Program Development and Technical Assessments**

https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf

EPA New England Bacterial Source Tracking Protocol

<https://www3.epa.gov/region1/npdes/stormwater/ma/2014AppendixI.pdf>

EPA National Menu of BMPs for Stormwater

<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#ill>

**Woburn Stormwater, Illicit Discharge/Connection and Construction Site
Management Ordinance**

<https://www.woburnma.gov/wp-content/uploads/2017/06/Woburn-Municipal-Code-Complete-11-1-2017.pdf>

3.3.5 MCM 3 Checklist of Key Documentation

Documentation of BMP progress should be kept in Appendix H. The following checklist includes the required documentation for MCM 3. See Section 5 of this Plan for additional record keeping information.

- Log of phone calls and complaints received regarding suspected illicit connections and other storm drain issues, including dates and actions taken;
- SSO inventory (updated annually), including the number of illicit discharges/connections identified and/or removed and the volume of sewage removed;
- Drainage system map;
- Data collected during dry and wet weather outfall/interconnection investigations, including the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening results, and results of all analyses (summarize on an annual basis and for the entire permit term);
- Number and percent of total outfall catchments served by the MS4 evaluated using the catchment investigation procedure;
- Presence or absence of System Vulnerability Factors for each catchment;
- Data collected during key junction manhole investigations;
- Inspection and maintenance records; and
- Frequency and type of employee training, including employees trained, training topic, date/time, and materials presented.

3.4 MCM 4: Construction Site Stormwater Runoff Control

Objective: *To minimize or eliminate erosion and maintain sediment on site so that it is not transported in stormwater and allowed to discharge to a water of the U.S. through the permittee’s MS4.*

This section of the SWMP describes how to comply with the Construction Site Stormwater Runoff Control requirements in General Permit Section 2.3.5.

3.4.1 MCM 4 BMPs from NOI

BMP ID	BMP Category	BMP Description	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
4A	Construction Regulations	Ordinance complete. Modify local regulations, if necessary, to contain new MS4 provisions per section 2.3.5.	Building Commissioner/ DPW	Review current procedures and modify if necessary within one (1) year of permit effective date	2018 (PY1)
4B	Construction Policy and Procedures	Develop and implement written procedures for site inspections and enforcement procedures per section 2.3.5.	Engineering/ Planning	Review current procedures and modify if necessary within one (1) year of permit effective date	2018 (PY1)

3.4.2 MCM 4 Implementation Plan

Per the General Permit, Woburn must develop and implement the following items, which will be adopted as either ordinance/regulation modifications or a new policy or procedure. Note that these items are only required for disturbances within the regulated area that are greater than or equal to one (1) acre or less than one (1) acre if that disturbance is part of a larger common plan of development or sale that would disturb one (1) or more acres.

- A regulatory mechanism that requires the use of sediment and erosion control practices at construction sites, as well as controls for other wastes on construction sites such as demolition debris, litter, and sanitary wastes;
- Written procedures for site inspections and enforcement of sediment and erosion control measures, including the responsible party for site inspections and enforcement authority, due within one (1) year of the effective date of the permit;
- Requirements for construction site operators performing land disturbance activities within the MS4 jurisdiction that result in stormwater discharges to the MS4 to implement a sediment and erosion control program that includes BMPs appropriate for the conditions at the construction site;

- Requirements for construction site operators within the MS4 jurisdiction to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes; and
- Written procedures for site plan review and inspection and enforcement, due within one (1) year of the effective date of the permit.

BMP 4A Construction Ordinance

The City shall implement and enforce a program to reduce pollutants in stormwater runoff discharged to the municipal drainage system from construction activities, including use of sediment and erosion control practices, at sites greater than one acre. Woburn has adopted an ordinance entitled *Stormwater, Illicit Discharge/Connection and Construction Site Management* in January 2007. This ordinance provides guidance for site planning and stormwater runoff control during construction and post-construction to protect local water resources from discharges. The Building Commissioner and Police Department serve as the enforcement agency for the ordinance.

The City will review the existing ordinance with respect to the 2016 General Permit and modify it if needed.

BMP 4B Construction Policy and Procedures

Woburn shall develop written procedures for site inspections and enforcement of sediment and erosion control measures. They will include procedures for tracking the number of site reviews, inspections, and enforcement actions.

3.4.3 MCM 4 Implementation Schedule

BMP	PY1	PY2	PY3	PY4	PY5
4A Construction Ordinance	●				
4B Construction Policy and Procedures	●				

● = year due

3.4.4 MCM 4 Guidelines and Resources

The following links include free or low-cost resources Woburn can use to supplement the Construction program.

EPA Construction General Permit SWPPP template, including inspection forms
<https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents>

Massachusetts Stormwater Handbook
<https://www.mass.gov/guides/massachusetts-stormwater-handbook-and-stormwater-standards>

EPA National Menu of BMPs for Stormwater
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#constr>

Woburn Stormwater, Illicit Discharge/Connection and Construction Site Management Ordinance
<https://www.woburnma.gov/wp-content/uploads/2017/06/Woburn-Municipal-Code-Complete-7-2-2018.pdf>

Central Massachusetts Regional Stormwater Coalition SOP 5: Construction Site Inspection
http://www.centralmastormwater.org/Pages/crsc_toolbox/Construction%20Inspection%20SOP_FINAL.pdf

Central Massachusetts Regional Stormwater Coalition SOP 6: Erosion and Sedimentation Control
http://www.centralmastormwater.org/Pages/crsc_toolbox/Erosion%20and%20Sedimentation%20Control%20SOP_FINAL.pdf

3.4.5 MCM 4 Checklist of Key Documentation

Documentation of BMP progress should be kept in Appendix H. The following checklist includes the required documentation for MCM 4. See Section 5 of this Plan for additional record keeping information.

- Number of site reviews, inspections, and enforcement actions; and
- Modifications to Woburn's ordinances, regulations, policies, and/or procedures as necessary.

3.5 MCM 5: Post-Construction Stormwater Management

Objective: *Reduce the discharge of pollutants found in stormwater through the retention or treatment of stormwater after construction on new or redeveloped sites.*

This section of the SWMP describes how to comply with the Stormwater Management in New Development and Redevelopment requirements in General Permit Section 2.3.6.

3.5.1 MCM 5 BMPs from NOI

BMP ID	BMP Category	BMP Description	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
5A	Post-Construction Ordinance and Regulations	Ordinance complete. Modify local regulations to contain new MS4 provisions per section 2.3.6.a of the General Permit.	Building Commissioner/ Engineering	Modify existing regulations if necessary within two (2) years of permit effective date	2019 (PY2)
5B	Assess street and parking lot guidelines	Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.	Engineering/ Planning	Complete report no later than (4) years of permit effective date	2020 (PY3)
5C	Assess allowing green infrastructure	Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist	Engineering/ Planning	Complete report no later than (4) years of permit effective date	2020 (PY3)
5D	Retrofit Feasibility Assessment	Conduct detailed inventory of City-owned properties and rank for retrofit potential	Engineering	Complete report no later than four (4) years of permit effective date. Beginning in year 5 keep running list of at least five (5) retrofit sites	2020 (PY3)

3.5.2 MCM 5 Implementation Plan

BMP 5A Post-Construction Ordinance

The City shall implement and enforce a program to reduce pollutants in stormwater runoff discharged to the municipal drainage system from post-construction activities for all new development and redevelopment sites greater than one acre. Woburn has adopted an ordinance entitled *Stormwater, Illicit Discharge/Connection and Construction Site Management* in 2007 and associated regulations. This ordinance provides guidance for site planning and stormwater runoff control during construction and post-construction to protect local water resources from discharges. The Building Commissioner and Police Department serve as the enforcement agency for the ordinance.

The City will need to review the existing ordinance with respect to the 2016 General Permit and modify it if needed. Additionally, the City must have procedures in place to require the submission of as-built plans after the completion of construction projects and ensure long-term operation and maintenance of stormwater management practices in place at construction sites.

BMP 5B Assess Street and Parking Lot Guidelines

In accordance with General Permit Section 2.3.6.b, Woburn shall develop a report assessing current street design and parking lot guidelines and other local requirements that affect the creation of impervious cover. This assessment shall be used to provide information to allow the City to determine if changes to design standards for streets and parking lots can be made to support low impact design (LID) options. Input will be gathered from multiple City departments. The final report will be appended to this SWMP once completed.

BMP 5C Assess Feasibility of Allowing Green Infrastructure

As detailed in General Permit Section 2.3.6.c, Woburn shall develop a report assessing local regulations to determine the feasibility of making green roofs, infiltration practices, and water harvesting devices allowable when appropriate site conditions exist. The City shall implement all recommendations in accordance with the schedules contained in the assessment.

BMP 5D Retrofit Feasibility Assessment

The City must identify at least five City-owned properties that could potentially be modified or retrofitted with BMPs designed to reduce the frequency, volume, and pollutant loads of stormwater discharges through a reduction of impervious area. General Permit Section 2.3.6.d describes factors and considerations for selecting potential sites with the goal of reducing impervious area and improving water quality. The inventory must be updated annually starting in Permit Year 5.

3.5.3 MCM 5 Implementation Schedule

BMP	PY1	PY2	PY3	PY4	PY5
5A Post-Construction Ordinance		●			
5B Assess Street and Parking Lot Guidelines				●	
5C Assess Feasibility of Allowing Green Infrastructure				●	
5D Retrofit Feasibility Assessment				●	→

 = year due
 = ongoing requirement

3.5.4 MCM 5 Guidelines and Resources

The following links include free or low-cost resources Woburn can use to supplement the Post-Construction program.

Massachusetts Stormwater Handbook
<https://www.mass.gov/guides/massachusetts-stormwater-handbook-and-stormwater-standards>

EPA National Menu of BMPs for Stormwater
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#post>

Woburn Stormwater, Illicit Discharge/Connection and Construction Site Management Ordinance
<https://www.woburnma.gov/wp-content/uploads/2017/06/Woburn-Municipal-Code-Complete-7-2-2018.pdf>

Managing Stormwater in Your Community: A Guide for Building an Effective Post-Construction Program
<https://www3.epa.gov/npdes/pubs/stormwaterinthecommunity.pdf>

EPA Managing Stormwater with LID Practices: Addressing Barriers to LID
<https://www3.epa.gov/region1/npdes/stormwater/assets/pdfs/AddressingBarrier2LID.pdf>

Metropolitan Area Planning Council LID Toolkit
<https://www.mapc.org/resource-library/low-impact-development-toolkit/>

Central Massachusetts Regional Stormwater Coalition SOP 5: Construction Site Inspection
http://www.centralmastormwater.org/Pages/crsc_toolbox/Construction%20Inspection%20SOP_FINAL.pdf

Central Massachusetts Regional Stormwater Coalition SOP 6: Erosion and Sedimentation Control
http://www.centralmastormwater.org/Pages/crsc_toolbox/Erosion%20and%20Sedimentation%20Control%20SOP_FINAL.pdf

3.5.5 MCM 5 Checklist of Key Documentation

Documentation of BMP progress should be kept in Appendix H. The following checklist includes the required documentation for MCM 5. See Section 5 of this Plan for additional record keeping information.

- Measures the City has taken to ensure adequate long-term operation and maintenance of stormwater BMPs and to require submission of as-built plans;
- Modifications to Woburn’s ordinances, regulations, policies, and/or procedures as necessary;
- Status of BMP 5B and 5C assessments, including any planned or completed changes to local regulations and guidelines (BMP 5B) and findings and progress towards making the practices allowable (BMP 5C); and
- Retrofit inventory, including all sites that have been modified or retrofitted. Sites should include City-owned sites identified in the inventory as well as non-municipal property modified or retrofitted to mitigate impervious area.

3.6 MCM 6: Good Housekeeping and Pollution Prevention

Objective: *The permittee shall implement an operations and maintenance program for permittee-owned operations that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned operations.*

This section of the SWMP describes how to comply with the Good Housekeeping and Pollution Prevention requirements in General Permit Section 2.3.7.

3.6.1 MCM 6 BMPs from NOI

BMP ID	BMP Category	BMP Description	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
6A	Operation & Maintenance Program	Inventory and create O&M procedures for all permittee-owned parks and open spaces, buildings and facilities (including their storm drains), and vehicles and equipment	DPW/ Engineering	Complete two (2) years after permit effective date, implement in following years	2019 (PY2)
6B	Operation & Maintenance Program	Establish and implement program for repair and rehabilitation of MS4 infrastructure	DPW/ Engineering	Complete two (2) years after permit effective date, implement in following years	2019 (PY2)

BMP ID	BMP Category	BMP Description	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
6C	Stormwater Pollution Prevention Plan (SWPPP)	Develop and implement a SWPPP for DPW facility.	DPW/ Engineering	Complete SWPPPs within two (2) years of permit effective date, implement in following years	2019 (PY2)
6D	Operation & Maintenance Program	Implement procedures to optimize catch basin cleaning developed under BMP 6B	DPW	Track frequency and material quantity of catch basin cleaning in City. In first Annual Report and in SWMP, document plan for optimizing catch basin cleaning.	2018 (PY1)
6D	Operation & Maintenance Program	Implement procedures for street and parking lot sweeping developed under BMP 6A	DPW	Annually track number of miles cleaned or the volume or mass of material removed.	2018 (PY1)
6D	Operation & Maintenance Program	Implement procedures for use and storage of deicing materials developed under BMP 6A & 6B.	DPW	Implement program for winter road maintenance throughout permit term.	2018 (PY1)
6D	Operation & Maintenance Program	Implement procedures to inspect and maintain City-owned structural stormwater BMPs developed under BMP 6B	DPW/ Engineering	Development an inventory of City-owned BMPs in progress. Report on inspection and maintenance conducted annually.	2018 (PY1)

3.6.2 MCM 6 Implementation Plan

BMP 6A Operation and Maintenance Program for Municipal Facilities and Equipment

Woburn must develop a written City-Wide Operation and Maintenance Program for municipal facilities and equipment, including:

- Parks and open space;
- Buildings and facilities, including schools, where pollutants are exposed to stormwater runoff; and

- Vehicles and equipment.

This plan will include an inventory of the municipally-owned facilities and equipment. The inventory and written program will be appended to this SWMP.

BMP 6B Operation and Maintenance Program for MS4 Infrastructure

The City shall develop a plan describing the activities and procedures used to maintain MS4 infrastructure in a timely manner to reduce the discharge of pollutants from the MS4. The written program developed under this BMP will be appended to the SWMP.

BMP 6C Stormwater Pollution Prevention Plans

The City shall prepare and implement a SWPPP for the City's DPW facility. In accordance with General Permit Section 2.3.7.b, Woburn must develop and implement a SWPPP for other City-owned or operated waste handling facilities where pollutants are exposed to stormwater. SWPPP requirements include "regular" employee training for all members of the Pollution Prevention Team (at a minimum). Additionally, quarterly site inspections are required at these sites according to General Permit Section 2.3.7.b.iii.

BMP 6D.1 Catch Basin Cleaning

The City must clean and inspect catch basins to make sure that catch basins are no more than 50% full. Develop and implement a program to optimize routine inspections, cleaning, and maintenance of catch basins. If a catch basin is consistently less than 50% full, the City can reduce the frequency of cleanings. If a catch basin is more than 50% full during two consecutive cleanings/inspections, the City must investigate the contributing drainage area for sources of excessive sediment loading and abate contributing sources when possible. Store and dispose/reuse catch basin cleanings according to MassDEP policies.

BMP 6D.2 Street Sweeping

Establish and implement procedures for sweeping and/or cleaning streets and City-owned parking lots. All streets must be swept and/or cleaned at least once per year in the spring (excluding rural streets with no curbs or catch basins). More frequent sweeping shall occur in targeted areas on the basis of pollutant load reduction potential. Store and dispose/reuse street sweepings according to MassDEP policies.

For rural streets with no curbs or catch basins, the City must sweep at least once per year or develop a targeted inspection and sweeping plan for those streets.

BMP 6D.3 Deicing Materials

Establish and implement procedures for winter road maintenance, including the use and storage of salt and sand.

BMP 6D.4 Inspection and Maintenance of City-Owned BMPs

The City shall develop inspection and maintenance procedures and frequencies for all stormwater treatment structures. An important first step will be to improve the inventory, mapping, and record keeping procedures for City-owned or operated stormwater BMPs, such as detention ponds and swales. The inventory should be developed within two (2) years of the permit effective date, per Section 2.3.4.5.a of the General Permit. All City-owned water quality BMPs must be inspected annually at a minimum. Note that drainage manholes and catch basins are not considered stormwater treatment structures for this BMP (structure maintenance procedures will be developed and implemented under BMPs 6B and 6D-1).

3.6.3 MCM 6 Implementation Schedule

BMP	PY1	PY2	PY3	PY4	PY5
6A O&M Program for Municipal Facilities and Equipment		●			
6B O&M Program for MS4 Infrastructure		●			
6C Stormwater Pollution Prevention Plans		●			
6D.1 Catch Basin Cleaning	←●	→	→	→	→
6D.2 Street Sweeping	←	●	→	→	→
6D.3 Deicing Materials	←	→	→	→	→
6D.4 Inspection and Maintenance of City-Owned BMPs	●	●	●	●	●

● = annual requirement or year due
 ↔ = ongoing requirement

3.6.4 MCM 6 Guidelines and Resources

The following links include free or low-cost resources Woburn can use to supplement the Good Housekeeping and Pollution Prevention program.

EPA National Menu of BMPs for Stormwater
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#poll>

Center for Watershed Protection Municipal Pollution Prevention/Good Housekeeping Practices
http://cdrpc.org/wp-content/uploads/2015/05/CWP_Municipal_Pollution_Prevention.pdf

MassDEP Management of Catch Basin Cleanings
<https://www.mass.gov/files/documents/2018/03/09/catch-basins.pdf>

MassDEP Reuse & Disposal of Street Sweepings
<https://www.mass.gov/files/documents/2018/05/14/street-sweepings.pdf>

MassDEP Snow Disposal Guidance
<https://www.mass.gov/guides/snow-disposal-guidance>

Central Massachusetts Regional Stormwater Coalition SOP: Inspecting Constructed BMPs
http://centralmastormwater.org/Pages/crsc_toolbox/Constructed%20BMP%20Inspection%20SOP_FINAL.pdf

3.6.5 MCM 6 Checklist of Key Documentation

Documentation of BMP progress should be kept in Appendix H. The following checklist includes the required documentation for MCM 6. See Section 5 of this Plan for additional record keeping information.

- Inventory of municipal facilities and equipment;
- Plan for optimizing catch basin cleaning and metrics about the number of catch basins, quantity cleaned and inspected, and total volume of material removed from all catch basins;
- Miles of streets cleaned and the volume of material removed; and
- All records associated with SWPPP quarterly site inspections, maintenance activities, and training.

Section 4

BMPs to Address Specific Waterbody Requirements

4.1 Impaired Waterbodies

As described in Section 2 of the SWMP, two surface waterbodies, the Aberjona River and Horn Pond, within Woburn were identified in the 2014 Integrated List of Waters as Category 5 waters needing a TMDL. However, no final TMDLs have been established for the impairments.

Horn Pond is impaired for non-native aquatic plants, DDT in Fish Tissue, excess algal growth, dissolved oxygen and total phosphorus. Per Appendix H of the General Permit, the City must comply with the additional requirements listed in 4.1.2 below to address total phosphorus in their stormwater discharges, however no BMPs are required to address the other listed impairments.

The Aberjona River is impaired for dissolved oxygen, total phosphorus, *E. coli*, physical substrate habitat alterations, ammonia (un-ionized), aquatic macroinvertebrate bioassessments, sediment bioassays – chronic toxicity, and turbidity. Per Appendix H of the General Permit the City must comply with the additional requirements listed in 4.1.1, 4.1.2 and 4.1.3 below to address bacteria, total phosphorus and solids in their stormwater discharges, respectively. No additional BMPs are required to address the other listed impairments.

4.1.1 Enhanced BMPs for Bacteria or Pathogens

General Permit Part 2.3.2: Public Education and Outreach

Woburn shall supplement the residential public education program with an annual message about the proper management of pet waste, including noting any existing ordinances where appropriate, and disseminating educational materials to dog owners at the time of issuance or renewal of a dog license. Education materials shall describe the detrimental impacts of improper management of pet waste, requirements for waste collection and disposal, and penalties for non-compliance.

The City shall also provide information to owners of septic systems about proper maintenance in any catchment that discharges to a waterbody impaired for bacteria or pathogens (i.e., Aberjona River).

General Permit Part 2.3.4: Illicit Discharge

Woburn shall implement the IDDE program required by the General Permit and described in Section 3.3 of this SWMP. Additionally, catchments draining to any waterbody impaired for bacteria or pathogens shall be designated either Problem Catchments or High Priority in implementation of the IDDE program.

4.1.2 Enhanced BMPs for Total Phosphorus

General Permit Part 2.3.2: Public Education and Outreach

Woburn shall supplement the residential and business/commercial/institution public education program with an annual message about various topics, including:

City of Woburn Stormwater Management Program

- Spring – the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free fertilizers;
- Summer – the proper management of pet waste, including noting any existing ordinances where appropriate; and
- Fall – the proper disposal of leaf litter.

General Permit Part 2.3.6: Stormwater Management in New Development and Redevelopment

Woburn's Stormwater, Illicit Discharge/Connection and Construction Site Management Ordinance shall include requirements that new development and redevelopment stormwater management BMPs be optimized for phosphorus removal. Additionally, the City's retrofit inventory developed under BMP 5D shall consider BMPs that infiltrate stormwater when possible.

General Permit Part 2.3.7: Good House Keeping and Pollution Prevention for Permittee Owned Operations

The City shall establish a program to properly manage grass cuttings and leaf litter on City-owned properties, including prohibiting blowing organic waste onto impervious surfaces. Woburn shall also increase street sweeping to a minimum of two occurrences per year, once in the spring and at least once in the fall.

Phosphorus Source Identification Report

Within four years of the permit effective date, the City must complete a Phosphorus Source Identification Report that includes the following components:

- Calculation of total MS4 area draining to the water quality limited receiving water segments or their tributaries, including updated mapping and catchment delineations completed under the IDDE Program;
- All screening and monitoring results targeting the receiving water segment(s);
- Impervious area and directly connected impervious area for the target catchment;
- Identification, delineation and prioritization of potential catchments with high phosphorus loading; and
- Identification of potential retrofit opportunities or opportunities for the installation of structural BMPs during redevelopment, including the removal of impervious area.

Potential Structural BMPs

Within five years of the permit effective date, the City must evaluate all City-owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under the Good Housekeeping Program or in the Phosphorus Source Identification Report that are within the drainage area of the water quality limited water or its tributaries. The evaluation shall include:

- The next planned infrastructure, resurfacing, or redevelopment activity planned for the property (if applicable) OR planned retrofit date;
- The estimated cost of redevelopment or retrofit BMPs; and
- The engineering and regulatory feasibility of redevelopment or retrofit BMPs.

The City must also provide a list of planned structural BMPs and a plan and schedule for implementation. At least one structural BMP must be installed as a “demonstration project” within a catchment with high phosphorus load potential within six years of the permit effective date.

The estimated phosphorus removal by structural BMPs installed in Woburn’s regulated area must be tracked.

4.1.3 Enhanced BMPs for Solids

General Permit Part 2.3.6: Stormwater Management in New Development and Redevelopment

Stormwater management systems designed on commercial and industrial land that drains to the water quality limited waterbody shall incorporate designs that allow for shutdown and containment where appropriate to isolate the system in the event of an emergency spill or other unexpected event. EPA also encourages the City to require any stormwater management system designed to infiltrate stormwater on commercial or industrial sites to provide the level of pollutant removal equal to or greater than the level of pollutant removal provided through the use of biofiltration of the same volume of runoff to be infiltrated, prior to infiltration.

General Permit Part 2.3.7: Good House Keeping and Pollution Prevention for Permittee Owned Operations

The City shall:

- Increase street sweeping frequency of all municipally-owned streets and parking lots to target areas with potential for high pollutant loads. This may include, but is not limited to, increased street sweeping frequency in commercial areas and high-density residential areas, or drainage areas with a large amount of impervious area.
- Prioritize inspection and maintenance for catch basins to ensure that no sump is more than 50 percent full. Clean catch basins more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings.
- Annually report on the street sweeping schedule to target high pollutant loads.

Section 5 Program Evaluation, Record Keeping, and Reporting

5.1 Program Evaluation

The City will annually self-evaluate its compliance with the terms and conditions of the 2016 General Permit, including the appropriateness of selected BMPs and progress toward defined measurable goals. The self-evaluation will be submitted as part of the Annual Report and maintained as part of the SWMP.

5.2 Record Keeping

The City will keep all records required by the 2016 General Permit for **at least five years**, including, but not limited to the following key information:

- Monitoring results;
- Copies of reports;
- Records of outfall/interconnection screening;
- Follow-up and elimination of illicit discharges;
- Maintenance records; and
- Inspection records.

Checklists of record keeping items Woburn should maintain are also included under each BMP in Section 3 of the SWMP. Records relating to the 2016 General Permit, including the SWMP, will be made available to the public, as required by Section 4.2.c of the Permit.

5.3 Annual Reports

The City will submit annual reports each year of the Small MS4 permit term, due ninety days from the close of each reporting period (i.e., September 28). The reporting period will be a one-year period commencing on the permit effective date, and subsequent anniversaries thereof, except that the first annual report under the 2016 General Permit shall also cover the period from May 1, 2018 to the permit effective date, July 1, 2018. Under the 2016 General Permit, annual reports will consist of a simple update provided to EPA and more robust documentation included in Appendix H of this SWMP.

Per Section 4.4.b of the 2016 General Permit, the annual reports shall contain the following information:

- i. A self-assessment review of compliance with the permit terms and conditions.*
- ii. An assessment of the appropriateness of the selected BMPs.*
- iii. The status of any plans or activities required by part 2.1 and/ or part 2.2, including:*

- *Identification of all discharges determined to be causing or contributing to an exceedance of water quality standards and description of response including all items required by part 2.1.1;*
 - *For discharges subject to TMDL related requirements, identification of specific BMPs used to address the pollutant identified as the cause of impairment and assessment of the BMPs effectiveness at controlling the pollutant (part 2.2.1. and Appendix F) and any deliverables required by Appendix F;*
 - *For discharges to water quality limited waters a description of each BMP required by Appendix H and any deliverables required by Appendix H.*
- iv. *An assessment of the progress towards achieving the measurable goals and objectives of each control measure in part 2.3 including:*
- *Evaluation of the public education program including a description of the targeted messages for each audience; method of distribution and dates of distribution; methods used to evaluate the program; and any changes to the program.*
 - *Description of the activities used to promote public participation including documentation of compliance with state public notice regulations.*
 - *Description of the activities related to implementation of the IDDE program including: status of the map; status and results of the illicit discharge potential ranking and assessment; identification of problem catchments; status of all protocols described in part 2.3.4.(program responsibilities and systematic procedure); number and identifier of catchments evaluated; number and identifier of outfalls screened; number of illicit discharges located; number of illicit discharges removed; gallons of flow removed; identification of tracking indicators and measures of progress based on those indicators; and employee training.*
 - *Evaluation of the construction runoff management including number of project plans reviewed; number of inspections; and number of enforcement actions.*
 - *Evaluation of stormwater management for new development and redevelopment including status of ordinance development (2.3.6.a.ii.), review and status of the street design assessment (2.3.6.b.), assessments to barriers to green infrastructure (2.3.6.c), and retrofit inventory status (2.3.6.d.)*
 - *Status of the O&M Programs required by part 2.3.7.a.*
 - *Status of SWPPP required by part 2.3.7.b. including inspection results.*
 - *Additional requirements in part 3.0 pertaining to public drinking water supplies. These requirements should be addressed in MCMs 5 and 6, discussed in Sections 3.5 and 3.6, respectively. Public drinking water supplies are prioritized as part of the IDDE program, discussed in Section 3.3.*
- v. *All outfall screening and monitoring data collected by or on behalf of the permittee during the reporting period and cumulative for the permit term, including but not limited to all data collected pursuant to part 2.3.4. The permittee shall also provide a description of any additional monitoring data received by the permittee during the reporting period.*
- vi. *Description of activities for the next reporting cycle.*

- vii. *Description of any changes in identified BMPs or measurable goals.*
- viii. *Description of activities undertaken by any entity contracted for achieving any measurable goal or implementing any control measure.*

5.4 SWMP Modifications

Per Section 4.1 of the 2016 General Permit, the City shall complete the following tasks:

- a. *The permittee shall annually self-evaluate its compliance with the terms and conditions of this permit and submit each self-evaluation in the Annual Report. The permittee shall also maintain the annual evaluation documentation as part of the SWMP.*
- b. *The permittee shall evaluate the appropriateness of the selected BMPs in achieving the objectives of each control measure and the defined measurable goals. Where a BMP is found to be ineffective the permittee shall change BMPs in accordance with the provisions below. In addition, permittees may augment or change BMPs at any time following the provisions below:*
 - *Changes adding (but not subtracting or replacing) components or controls may be made at any time.*
 - *Changes replacing an ineffective or infeasible BMP specifically identified in the SWMP with an alternative BMP may be made as long as the basis for the changes is documented in the SWMP by, at a minimum:*
 - *An analysis of why the BMP is ineffective or infeasible;*
 - *Expectations on the effectiveness of the replacement BMP; and*
 - *An analysis of why the replacement BMP is expected to achieve the defined goals of the BMP to be replaced.*

The permittee shall indicate BMP modifications along with a brief explanation of the modification in each Annual Report.

- c. *EPA or MassDEP may require the permittee to add, modify, repair, replace or change BMPs or other measures described in the annual reports as needed:*
 - *To address impacts to receiving water quality caused or contributed to by discharges from the MS4; or*
 - *To satisfy conditions of this permit*

Any changes requested by EPA or MassDEP will be in writing and will set forth the schedule for the permittee to develop the changes and will offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification.

The City may update or revise the SWMP as needed as the City's activities are modified, changed, or updated to meet permit conditions during the permit term. If it is necessary to modify or update the SWMP, the City should follow this procedure to formalize the changes keep a log with a description of the modification, the date, and the name and signature of the person making it (see Appendix I).

Section 6 SWMP Certification

All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by the Mayor of Woburn or a duly authorized representative.

If the City determines it to be prudent in the future, per Appendix B, Section B.11 of the General Permit, the City can delegate an authorized representative to sign the SWMP, Annual Reports, SWPPPs and other documents prepared under the permit. The authorization must be made in writing by the Mayor and specify the representative, in accordance with Appendix B, Section B.11.

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 gathered and evaluated 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, 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: Scott G. Allen Title: Mayor
Signature: [Handwritten Signature] Date: 6-25-19

Appendix A

Notice of Intent, Outfall Map and
Authorization to Discharge Letter from EPA

Part I: General Conditions

General Information

Name of Municipality or Organization: State:

EPA NPDES Permit Number (if applicable):

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Fax Number:

Other Information

Stormwater Management Program (SWMP) Location (web address or physical location, if already completed):

Eligibility Determination

Endangered Species Act (ESA) Determination Complete? Eligibility Criteria (check all that apply): A B C

National Historic Preservation Act (NHPA) Determination Complete? Eligibility Criteria (check all that apply): A B C

Check the box if your municipality or organization was covered under the 2003 MS4 General Permit

MS4 Infrastructure (if covered under the 2003 permit)

Estimated Percent of Outfall Map Complete? If 100% of 2003 requirements not met, enter an estimated date of completion (MM/DD/YY):

Web address where MS4 map is published:
If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission (see section V for submission options)

Regulatory Authorities (if covered under the 2003 permit)

Illicit Discharge Detection and Elimination (IDDE) Authority Adopted? <small>(Part II, III, IV or V, Subpart B.3.(b.) of 2003 permit)</small>	<input type="text" value="Yes"/>	Effective Date or Estimated Date of Adoption (MM/DD/YY):	<input type="text" value="01/22/07"/>
Construction/Erosion and Sediment Control (ESC) Authority Adopted? <small>(Part II, III, IV or V, Subpart B.4.(a.) of 2003 permit)</small>	<input type="text" value="Yes"/>	Effective Date or Estimated Date of Adoption (MM/DD/YY):	<input type="text" value="01/22/07"/>
Post- Construction Stormwater Management Adopted? <small>(Part II, III, IV or V, Subpart B.5.(a.) of 2003 permit)</small>	<input type="text" value="Yes"/>	Effective Date or Estimated Date of Adoption (MM/DD/YY):	<input type="text" value="01/22/07"/>

Waterbody segment that receives flow from the MS4	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/DO Saturation	Nitrogen	Oil & Grease/ PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
Wetland/Tributary to Sucker Brook	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Tributary	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wetland/Tributary to Unnamed Tributary	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Whittemore Pond	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wetland/Tributary to Whittemore Pond	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wetland/Tributary to Little Brook	9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Courtland Circle	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Day Circle	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Karen Road	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Kimball Court	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of North Warren Street	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Pearl Street	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Revere Road	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Virginia Avenue	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Winter Road	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Pond off of Chandler Street	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Pond off of Presidential Way	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outside Receiving	190	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Click to lengthen table

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Part III: Stormwater Management Program Summary

Identify the Best Management Practices (BMPs) that will be employed to address each of the six Minimum Control Measures (MCMs). For municipalities/organizations whose MS4 discharges into a receiving water with an approved Total Maximum Daily Load (TMDL) and applicable waste load allocation (WLA), identify any additional BMPs employed to specifically support the achievement of the WLA in the TMDL section at the end of Part III.

For each MCM, list each existing or proposed BMP by category and provide a brief description, responsible parties/departments, measurable goals, and the year the BMP will be employed (public education and outreach BMPs also require a target audience).

MCM 1: Public Education and Outreach

BMP ID	BMP Media/Category	BMP Description	Targeted Audience	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
1A	Multi-media methods (including web, social media, and print materials at public buildings)	Education and outreach on stormwater management topics of significance in Woburn (including pet waste management, proper use of pesticides and fertilizers). Educational topics will include but are not limited to those in Part 2.3.2.d.i	Residents	DPW with support from MyRWA	Distribute a minimum of two (2) educational messages spaced at least a year apart	2018 (PY1)
1B	Multi-media methods (including web and direct mail)	Education and outreach on stormwater management topics of significance in Woburn (including proper lawn maintenance, parking lot sweeping). Educational topics will include but are not limited to those in Part 2.3.2.d.ii	Businesses, Institutions, and Commercial Facilities	DPW with support from MyRWA	Distribute a minimum of two (2) educational messages spaced at least a year apart	2019 (PY2)

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BMP ID	BMP Media/Category	BMP Description	Targeted Audience	Responsible Department/ Parties	Measurable Goal	Beginning Year of BMP Implementation
1C	Multi-media methods (including web and permit application guidance)	Education and outreach on stormwater management topics of significance in Woburn (including proper erosion and sedimentation control, permit requirements, and design standards). Educational topics will include but are not limited to those in Part 2.3.2.d.iii	Developers (Construction)	DPW/ Conservation Commission/ Planning/ Building Commissioner	Distribute a minimum of two (2) educational messages spaced at least a year apart	2018 (PY1)
1D	Multi-media methods (including web and direct mail)	Education and outreach on stormwater management topics of significance in Woburn (including pollution prevention, illicit discharges, Multi-Sector General Permit). Educational topics will include but are not limited to those in Part 2.3.2.d.iv	Industrial Facilities	DPW with support from MyRWA	Distribute a minimum of two (2) educational messages spaced at least a year apart	2019 (PY2)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary

MCM 2: Public Involvement and Participation

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
2A	Public Review	SWMP review (Plan and reports available on web and at public meetings)	DPW/Engineering	Annually provide the public with an opportunity to participate in the review and implementation of the SWMP	2018 (PY1)
2B	Public Participation	Provide opportunities for public involvement and participation in Woburn's stormwater program (including clean up events and activities with school age children). Specific activities, schedule, and lead departments are included in the SWMP.	DPW/Board of Health/Conservation Commission with support from MyRWA	Ongoing compliance	2018 (PY1)
2C	Public Review	Continue Stormwater Working Group (DPW, Engineering, Conservation, Planning, Board of Health, Water/Sewer, Facilities, GIS, Schools)	Engineering	At a minimum, stormwater working group will meet annually.	2018 (PY1)

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Part III: Stormwater Management Program Summary

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
3A	IDDE Ordinance	Complete. Continue to enforce and update if necessary.	Engineering	Track illicit discharges identified and removed.	2018 (PY1)
3B	SSO Inventory	Develop SSO inventory in accordance with permit conditions	Engineering	Complete within one (1) year of effective date of permit. Track # of SSOs identified and removed annually	2018 (PY1)
3C	Storm sewer system map	Improve map during IDDE Program implementation	Engineering	Update map within two (2) years of effective date of permit and complete full system map 10 years after effective date of permit	2018 (PY1)
3D	Written IDDE program	Update written IDDE Plan as necessary	Engineering	Complete within one (1) year of the effective date of permit and update as required	2018 (PY1)
3E-1	Assessment and Priority Ranking of Outfalls & Interconnections	Outfall/Interconnection Inventory and Initial Ranking as part of BMP 3D.	Engineering	Complete within one (1) year of the effective date of permit and update as necessary	2018 (PY1)
3E-2	Assessment and Priority Ranking of Outfalls & Interconnections	Dry Weather Outfall Screening & Sampling in accordance with IDDE Plan and permit conditions.	Engineering	Complete three (3) years after effective date of permit. Track # of illicit discharges identified & volume removed. Summarize screening/sampling results.	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
3E-3	Assessment and Priority Ranking of Outfalls & Interconnections	Catchment Investigations according to IDDE Program and permit conditions	Engineering	Complete 10 years after effective date of permit. Track # and percentage of MS4 catchments evaluated. Track # of illicit discharges identified & volume removed. Summarize screening/sampling results.	2019 (PY2)
3F	Employee Training	Train employees on IDDE implementation	Engineering	Train annually. Track employees trained, training topic, date/time, and materials presented.	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary

MCM 4: Construction Site Stormwater Runoff Control

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
4A	Construction Regulations	Ordinance complete. Modify local regulations, if necessary, to contain new MS4 provisions per section 2.3.5.	Building Commissioner/ DPW	Review current procedures and modify if necessary within one (1) year of permit effective date	2018 (PY1)
4B	Construction Policy and Procedures	Develop and implement written procedures for site inspections and enforcement procedures per section 2.3.5.	Engineering/ Planning	Review current procedures and modify if necessary within one (1) year of permit effective date	2018 (PY1)

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Part III: Stormwater Management Program Summary

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
5A	Post-Construction Regulations	Ordinance complete. Modify local regulations to contain new MS4 provisions per section 2.3.6.a. of the General Permit.	Building Commissioner/ Engineering	Modify existing regulations if necessary within two (2) years of permit effective date	2019 (PY2)
5B	Assess street and parking lot guidelines	Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.	Engineering/ Planning	Complete report no later than four (4) years of permit effective date	2020 (PY3)
5C	Assess allowing green infrastructure	Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist	Engineering/ Planning	Complete report no later than four (4) years of permit effective date	2020 (PY3)

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BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
5D	Retrofit Feasibility Assessment	Conduct detailed inventory of City-owned properties and rank for retrofit potential	Engineering	Complete report no later than four (4) years of permit effective date. Beginning in year 5 keep running list of at least five (5) retrofit sites	2020 (PY3)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary

MCM 6: Municipal Good Housekeeping and Pollution Prevention

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
6A	Operation & Maintenance Program	Inventory and create O&M procedures for all permittee-owned parks and open spaces, buildings and facilities (including their storm drains), and vehicles and equipment	DPW/Engineering	Complete two (2) years after permit effective date, implement in following years	2019 (PY2)
6B	Operation & Maintenance Program	Establish and implement program for repair and rehabilitation of MS4 infrastructure	DPW/Engineering	Complete two (2) years after permit effective date, implement in following years	2019 (PY2)
6C	Stormwater Pollution Prevention Plan (SWPPP)	Develop and implement a SWPPP for DPW facility.	DPW/Engineering	Complete SWPPPs within two (2) years of permit effective date, implement in following years	2019 (PY2)
6D-1	Operation & Maintenance Program	Implement procedures to optimize catch basin cleaning developed under BMP 6B	DPW	Track frequency and material quantity of catch basin cleaning. In first Annual Report and in SWMP, document plan for optimizing catch basin cleaning.	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
6D-2	Operation & Maintenance Program	Implement procedures for street and parking lot sweeping developed under BMP 6A & 6B	DPW	Annually track number of miles cleaned or the volume or mass of material removed.	2018 (PY1)
6D-3	Operation & Maintenance Program	Implement procedures for use and storage of deicing materials developed under BMP 6A & 6B	DPW	Implement program for winter road maintenance throughout permit term.	2018 (PY1)
6D-4	Operation & Maintenance Program	Implement procedures to inspect and maintain City-owned structural stormwater BMPs developed under BMP 6B	DPW/Engineering	Development of inventory of City-owned BMPs in progress. Report on inspection and maintenance conducted annually.	2018 (PY1)

Part IV: Notes and additional information

Use the space below to indicate the part(s) of 2.2.1 and 2.2.2 that you have identified as not applicable to your MS4 because you do not discharge to the impaired water body or a tributary to an impaired water body due to nitrogen or phosphorus. Provide all supporting documentation below or attach additional documents if necessary. Also, provide any additional information about your MS4 program below.

1. BMPs identified in the 2003 General Permit NOI have evolved over the permit term due to staff changes and Stormwater Program modifications. The intent of the 2003 BMPs are being met under the proposed 2016 General Permit BMPs included in the Stormwater Management Plan. The Plan will describe how the BMPs under the 2003 permit fit into the new program, particularly where BMPs and/or measurable goals that are outdated or no longer appropriate have been replaced or updated.

2. The National Endangered Species Eligibility Determination screening process has been completed and the City of Woburn meets Criterion C. The City's stormwater discharges and discharge related activities will have no affect on listed species or critical habitat. The City will consult with U.S. Fish and Wildlife as needed during the permit term.

3. The National Historic Preservation Act Eligibility Determination screening process has been completed and the City of Woburn meets Criterion A. The City's stormwater discharges do not have the potential to cause effects on historic properties. The City will consult with the State Historic Preservation Officer as needed during the permit term.

4. The outfalls and associated receiving waters in Part II are based on mapping as of September 2018 and are subject to change during implementation of the Stormwater Management Program as newly constructed outfalls are added to the map and inventory; locations are adjusted; or outfalls are removed if they are determined to be non-municipally owned/operated or reclassified as a BMP inlet, culvert, or other structure. Changes to the outfall inventory and mapping will be formalized in Annual Reports to EPA.

Detailed explanations of the above notes will be included in the City's Stormwater Management Plan.

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part V: 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.

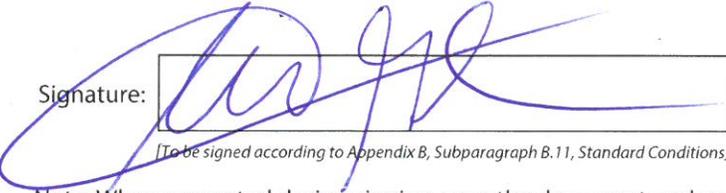
Name:

Scott Galvin

Title:

Mayor

Signature:

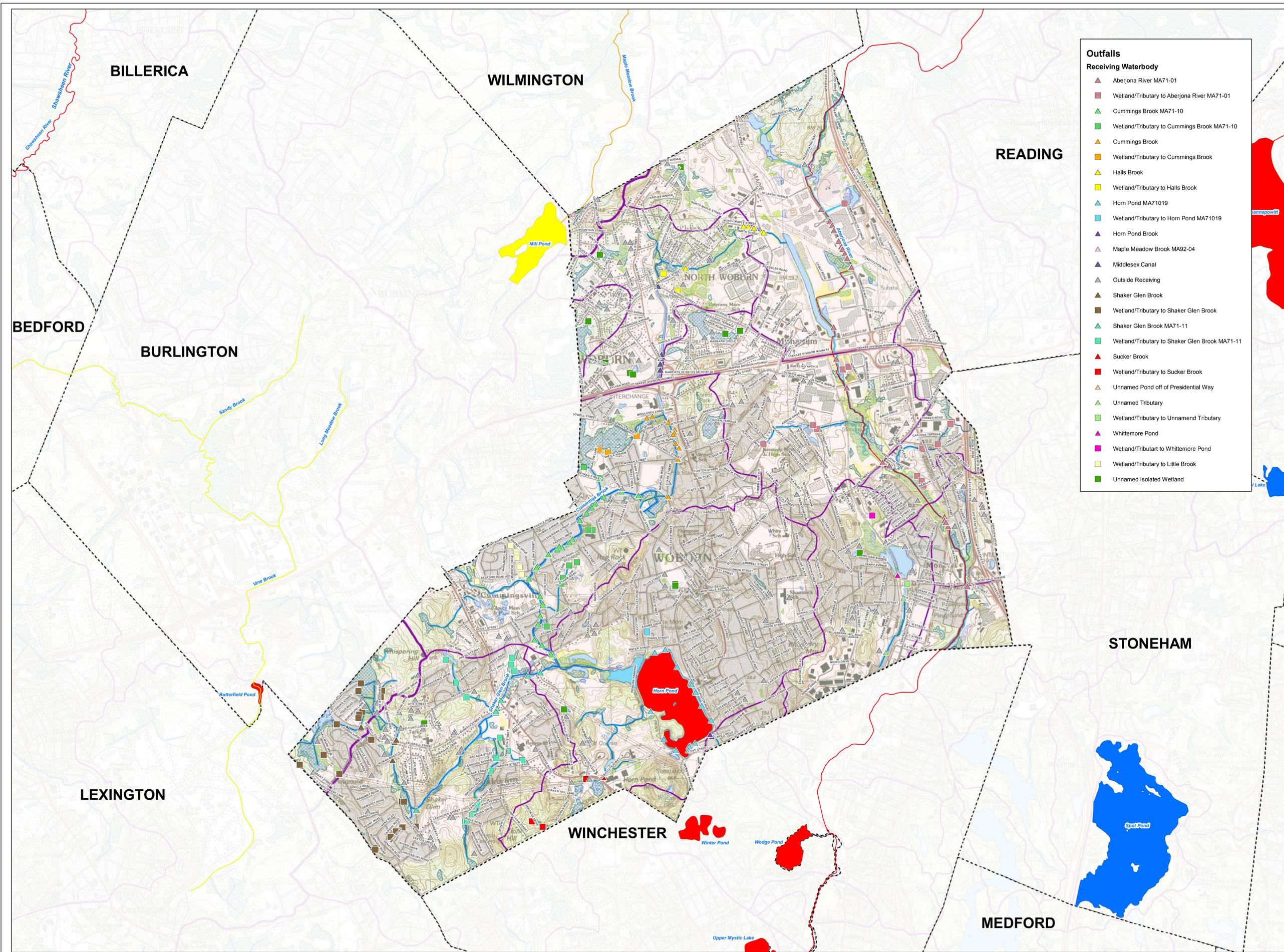


[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]

Date:

9/27/2018

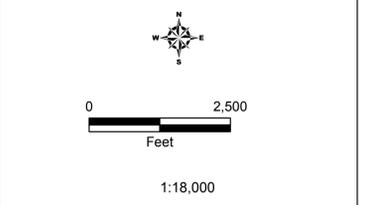
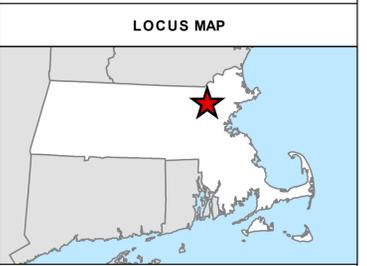
Note: When prompted during signing, save the document under a new file name



- Outfalls**
- Receiving Waterbody**
- ▲ Aberjona River MA71-01
 - Wetland/Tributary to Aberjona River MA71-01
 - ▲ Cummings Brook MA71-10
 - Wetland/Tributary to Cummings Brook MA71-10
 - ▲ Cummings Brook
 - Wetland/Tributary to Cummings Brook
 - ▲ Halls Brook
 - Wetland/Tributary to Halls Brook
 - ▲ Horn Pond MA71019
 - Wetland/Tributary to Horn Pond MA71019
 - ▲ Horn Pond Brook
 - ▲ Maple Meadow Brook MA92-04
 - ▲ Middlesex Canal
 - ▲ Outside Receiving
 - ▲ Shaker Glen Brook
 - Wetland/Tributary to Shaker Glen Brook
 - ▲ Shaker Glen Brook MA71-11
 - Wetland/Tributary to Shaker Glen Brook MA71-11
 - ▲ Sucker Brook
 - Wetland/Tributary to Sucker Brook
 - ▲ Unnamed Pond off of Presidential Way
 - ▲ Unnamed Tributary
 - Wetland/Tributary to Unnamed Tributary
 - ▲ Whittemore Pond
 - Wetland/Tributary to Whittemore Pond
 - Wetland/Tributary to Little Brook
 - Unnamed Isolated Wetland

Outfalls and Receiving Waterbodies

- LEGEND**
- | | |
|---|---|
| <ul style="list-style-type: none"> ■ Major Drainage Basin ■ Subbasin ■ Urban Area 2000 ■ Urban Area 2010 Census ■ Public Surface Water Supply (PSWS) ■ Water Bodies ■ MassDEP Inland Wetlands ■ MassDEP Coastal Wetlands ■ Stream/Intermittent Stream ■ National Wetlands Inventory Wetland Areas ■ Freshwater Emergent Wetland ■ Freshwater Forested/Shrub Wetland ■ Freshwater Pond ■ Lake ■ Riverine ■ NWI Rivers and Streams ■ Flood Zone Designations ■ 100 Year Flood Zone ■ Town Boundary | <p>Water Body Segments - Rivers</p> <p>Category</p> <ul style="list-style-type: none"> ■ 2 - Attaining some uses, other uses not assessed ■ 3 - No uses assessed ■ 4A - Impaired - TMDL is completed ■ 4C - Impairment not caused by a pollutant ■ 5 - Impaired - TMDL required <p>Water Body Segments - Lakes, Estuaries</p> <p>Category</p> <ul style="list-style-type: none"> ■ 2 - Attaining some uses, other uses not assessed ■ 3 - No uses assessed ■ 4A - Impaired - TMDL is completed ■ 4C - Impairment not caused by a pollutant ■ 5 - Impaired - TMDL required |
|---|---|



- NOTES**
1. Based on USGS Topo Map (1985 and 1987)
 2. MassGIS: 2014 Integrated List Data (2016), Major Drainage Basins (2003), Subbasins (2007), Community Boundary (2017), National Wetlands Inventory (2007), FEMA National Flood Hazard (2017), MassDOT Major Roads (2014)
 3. Town of Woburn: Outfalls

Notice of Intent
Woburn, Massachusetts

September 2018



Appendix B

Stormwater Management Program Team

Stormwater Management Program Team

SWMP Team Coordinator

Name	Jay Duran	Title	DPW Superintendent
Department	Public Works		
Phone Number	781-897-5980	Email	jduran@cityofwoburn.com
Responsibilities	Administer Stormwater Management Program and oversee DPW tasks including Public Education, Public Participation and Good Housekeeping; coordinate among departments and with the Mystic River Watershed Association to meet permit requirements.		

SWMP Team

Name	John E. Corey Jr., P.E.	Title	City Engineer
Department	Engineering		
Phone Number	781-897-5880	Email	jaycorey@cityofwoburn.com
Responsibilities	Oversee stormwater tasks within Engineering, specifically, oversee and implement the IDDE Program, coordinate with Planning department on Post-Construction Stormwater Management Regulations and Assessments and with the DPW on Good Housekeeping Measures.		

Name	Matthew Barrett, GISP	Title	GIS Coordinator
Department	Engineering		
Phone Number	781-897-5883	Email	mbarrett@cityofwoburn.com
Responsibilities	Coordinate stormwater related GIS tasks; update stormwater system mapping as needed and keep track of inspections and outfall sampling.		

Name	John Fralick	Title	Health Agent
Department	Board of Health		
Phone Number	781-897-5920	Email	jfralick@cityofwoburn.com
Responsibilities	Provide opportunities for public involvement and participation through the Board of Health; Support the stormwater program and represent the Board of Health in stormwater related issues.		

Name	Theresa Murphy	Title	Conservation Administrator
Department	Conservation Commission		
Phone Number	781-897-5933	Email	tmurphy@cityofwoburn.com
Responsibilities	Provide opportunities for public involvement and participation through the Conservation Commission; Support the stormwater program and represent the Conservation Commission in stormwater related issues.		

Name	Lenny Burnham	Title	DPW Deputy Superintendent
Department	Public Works		
Phone Number	781-897-5980	Email	lburnham@cityofwoburn.com
Responsibilities	Support DPW Superintendent in administering Stormwater Management Program and in executing DPW stormwater tasks.		

Name	Meghan Doherty	Title	Health Code Enforcement Officer
Department	Board of Health		
Phone Number	781-897-5922	Email	mdoherty@cityofwoburn.com
Responsibilities	Support the stormwater program and enforce stormwater regulations related to the Health Code.		

Name	Tina Cassidy	Title	Planning Director
Department	Planning Board		
Phone Number	781-897-5817	Email	tcassidy@cityofwoburn.com
Responsibilities	Coordinate with other departments to provide outreach and education to residents; work with the Engineering Department to develop and implement construction and post-construction policies and to assess street and parking lot guidelines and allowing green infrastructure.		

Name	<input type="text" value="Scott Galvin"/>	Title	<input type="text" value="Mayor"/>
Department	<input type="text" value="Mayor's Office"/>		
Phone Number	<input type="text" value="781-897-5901"/>	Email	<input type="text" value="sgalvin@cityofwoburn.com"/>
Responsibilities	<input type="text" value="Signs Annual Reports, SWPPPs and any other documents prepared under the permit."/>		

Name	<input type="text"/>	Title	<input type="text"/>
Department	<input type="text"/>		
Phone Number	<input type="text"/>	Email	<input type="text"/>
Responsibilities	<input type="text"/>		

Name	<input type="text"/>	Title	<input type="text"/>
Department	<input type="text"/>		
Phone Number	<input type="text"/>	Email	<input type="text"/>
Responsibilities	<input type="text"/>		

Name	<input type="text"/>	Title	<input type="text"/>
Department	<input type="text"/>		
Phone Number	<input type="text"/>	Email	<input type="text"/>
Responsibilities	<input type="text"/>		

Appendix C

Summary of 2003 and 2016 MS4 General Permit BMPs

Appendix C

Summary of 2003 and 2016 MS4 General Permit BMPs

BMPs identified in the 2003 General Permit NOI have evolved over the permit term due to staff changes and Stormwater Program modifications. The intent of the 2003 BMPs are being met under the following proposed 2016 General Permit BMPs (BMPs current as of 2018 Annual Report):

- 1-1: Hold Earth Day Celebration – now under BMP 2B
- 1-2: Hold Conservation Day Event – now under BMP 2B
- 1-3: Continue Pet Waste Disposal Practices – now under BMP 2B
- 1-4: Maintain Copies of Environmental Awareness Brochures – now under BMP 1A
- 1-5: Develop and Distribute Stormwater Brochure – now under BMPs 1A-D
- 1-6: DPW Staff Available for Classroom Discussions/Tours – now under BMP 2B
- 1-7: Stormwater Bulletins Added to Kiosks at Horn Pond – now under BMP 1A
- 1-8: Stormwater Information Added to DPW's Website – now under BMPs 1A-D
- 2-1: Comply with State Public Notification Guidelines – now under BMP 2A
- 2-2: Used Oil Collection Program – now under BMP 2B
- 2-3: Household Hazardous Waste/Tire Collection Days – now under BMP 2B
- 2-4: City-wide Recycling Program – now under BMP 2B
- 2-5: Street Tree Planting Program – now under BMP 2B
- 3-1: Continue to Inspect New Sewer Connections – now under BMP 3
- 3-2: Map of Outfalls and Receiving Waters – now under BMP 3C
- 3-3: Complete Dry Weather Screening of Outfalls – now under BMP 3E-2
- 3-4: Stormwater Ordinance – now under BMP 3A
- 3-5: Develop and Implement System for Detection and Elimination of Illicit Discharges – now under BMP 3D
- 4-1: Continue to Apply Standard 8 of the Massachusetts Stormwater Policy – now under BMP 4B
- 4-2: Procedures for Collection of Public Comments – BMP 2A
- 4-3: Continue Inspections for Erosion Control Measures at Construction Sites with Conservation Commission Review – now under BMP 4B
- 4-4: Procedure for Control of Discarded Building Materials – now under BMP 4B
- 4-5: Amend the Subdivision Regulations to Require an Erosion and Sediment Control Plan for Sites Disturbing more than 1-acre – now under BMP 4A
- 4-6: Amend the Zoning Ordinance to Require Erosion and Sediment Control Plan for Sites Disturbing More than 1-acre – now under BMP 4A
- 5-1: Continue to Implement City's Planning Board Rules and Subdivision Regulations – now under BMP 5A
- 5-2: Maintain Policy Ensuring Long-term Maintenance of Private Structural BMPs – now under BMP 5A
- 5-3: Adopt Massachusetts Stormwater Policy Standards #2, 3, 4, 7 and 9 in City Ordinances – now under BMP 5A
- 6-1: Continue Street Sweeping Program – now under BMP 6D-2
- 6-2: Continue Catch Basin Cleaning Program – now under BMP 6D-1
- 6-3: Continue Salting/Snow Removal Practices – now under BMP 6D-3
- 6-4: Hazardous Waste Response Program – now under BMPs 6A and 6C
- 6-5: Continue Vehicle Washing Practices – now under BMP 6A

Appendix C
Summary of 2003 and 2016 MS4 General Permit BMPs

6-6: Continue Vehicle Maintenance Practices – now under BMP 6A

6-7: Park and Landscape Maintenance – now under BMP 6A

6-8: Develop/Implement Employee Education/Training Program – now under BMP 3F

Appendix D

Endangered Species Act Eligibility Criteria Documentation

Endangered Species Act Eligibility Certification

To: City of Woburn Stormwater Management Program Files
FROM: Tighe & Bond
COPY: John Duran, P.E., Superintendent of Public Works
John Corey, Jr., P.E., City Engineer
DATE: November 27, 2018

Tighe & Bond has completed the National Endangered Species Eligibility Determination screening process in accordance with Part 1.9.1 and Appendix C of U.S. EPA's National Pollutant Discharge Elimination System (NPDES) General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts (see Attachment A of this memorandum), effective July 1, 2018, and determined that the **City of Woburn** meets **Criterion C**, where informal consultation with U.S. Fish and Wildlife Service (USFWS) resulted in a finding that the stormwater discharges and discharge related activities will have "no affect" on listed species or critical habitat.

Tighe & Bond followed EPA's screening process required by the 2016 Small MS4 General Permit as follows:

Tighe & Bond went to the USFWS Information for Planning and Consultation (IPaC) website¹ and created an IPaC Trust Resources Report, included in Attachment B to this memorandum. This Report lists the following species that may occur or could potentially be affected by activities in the Town:

- Northern Long-eared Bat.

This report documents that there are no critical habitats in Woburn.

Tighe & Bond then went to the USFWS New England Field Office website for Endangered Species Reviews/Consultations² and selected the Massachusetts state list³ to review which Towns have federally-listed species. A copy of the list of Federally Listed Endangered and Threatened Species in Massachusetts is included in Attachment C to this memorandum. Based on review of this list, the Northern Long-eared Bat is listed statewide.

Tighe & Bond then reviewed Step 1 Part B of the USFWS endangered species consultation, and visited the Massachusetts Natural Heritage and Endangered Species Program (NHESP) species information and conservation website about the Northern Long-eared Bat⁴. The NHESP website included a map showing the known locations of the Northern Long-eared Bat within Massachusetts. Attachment D includes a map showing there are no roost trees or hibernating locations within Woburn. Based on the results of the NHESP website review, Tighe & Bond determined there is no potential habitat for any USFWS listed endangered species within the action area and therefore no further coordination is required with the USFWS. Attachment E provides the results of Tighe & Bond's informal consultation on behalf of the

¹ <http://ecos.fws.gov/ipac/>

² https://www.fws.gov/newengland/EndangeredSpec-Consultation_Project_Review.htm

³ <https://www.fws.gov/newengland/pdfs/MA%20species%20by%20town.pdf>

⁴ <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/rare-mammals/northern-long-eared-bat.html>

City of Woburn with USFWS “no species present” letter that states “no species are known to occur in the project area”.

Step 1 – Determine if you can meet USFWS Criterion A

“USFWS Criterion A: You can certify eligibility, according to USFWS Criterion A, for coverage by this permit if, upon completing the Information, Planning, and Conservation (IPaC) online system process, you printed and saved the preliminary determination which indicated that federally listed species or designated critical habitats are not present in the action area. See Attachment 1 to Appendix C for instructions on how to use IPaC.”

No, the City of Woburn’s IPaC action area contains the Northern Long-eared Bat.

Step 2 – Determine if You Can Meet Eligibility USFWS Criteria B

“USFWS Criterion B: You can certify eligibility according to USFWS Criteria B for coverage by this permit if you answer “Yes” to **all** of the following questions:

- 1) Does your action area contain one or more of the following species: Sandplain gerardia, Small whorled Pogonia, American burying beetle, Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?”

No, the City of Woburn’s action area does not contain any of the above species.

Step 3 – Determine if You Can Meet Eligibility USFWS Criteria C

“You can certify eligibility according to USFWS Criterion C for coverage by this permit if you answer “Yes” to both of the following questions:

- 1) Does your action area contain one or more of the following species: Northern Long-eared Bat, Sandplain gerardia, Small whorled Pogonia and/or American burying beetle and does not contain any following species: Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?

Yes, the City of Woburn’s action area contains the Northern Long-eared Bat, but none of the other subsequent species.

- 2) Did the assessment of your discharge and discharge related activities indicate that there would be “no affect” on listed species or critical habitat and EOA provided concurrence with your determination?

Yes, Tighe & Bond performed an informal consultation with USFWS and determined that the Town’s discharges and discharge related activities will have “no affect” on listed species or critical habitat (see discussion above).

- 3) Do you agree that if, during the course of the permit term, you plan to install a structural BMP not identified in the NOI that you will conduct an endangered species screening for the proposed site and contact the USFWS if you determine that the new activity “may affect” or is “not likely to adversely affect” listed species or critical habitat under the jurisdiction of the USFWS.”

Yes, during the course of the permit term the City of Woburn agrees to conduct an endangered species screening for the proposed site and contact USFWS if they plan to install a structural BMP not identified in the NOI.

Tighe & Bond's review of all questions under Step 3 resulted in "Yes" and thereby we determined the City of Woburn's action area meets the endangered species' eligibility requirements included in Criterion C.

J:\W\W2064 - Woburn Stormwater Assistance\NOI and SWMP\NOI\Drafts\Endangered Species Act Eligibility Certification.docx

Attachment A

Appendix C of U.S. EPA's National Pollutant Discharge Elimination System (NPDES) General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts

APPENDIX C ENDANGERED SPECIES GUIDANCE

A. Background

In order to meet its obligations under the Clean Water Act and the Endangered Species Act (ESA), and to promote the goals of those Acts, the Environmental Protection Agency (EPA) is seeking to ensure the activities regulated by this general permit do not adversely affect endangered and threatened species or critical habitat. Applicants applying for permit coverage must assess the impacts of their stormwater discharges and discharge-related activities on federally listed endangered and threatened species (“listed species”) and designated critical habitat (“critical habitat”) to ensure that those goals are met. Prior to obtaining general permit coverage, applicants must meet the ESA eligibility provisions of this permit by following the steps in this Appendix¹.

Applicants also have an independent ESA obligation to ensure that their activities do not result in any prohibited “take” of listed species². The term “Take” is used in the ESA to include harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. “Harm” is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering. “Harass” is defined as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Many of the measures required in this general permit and in these instructions to protect species may also assist in ensuring that the applicant’s activities do not result in a prohibited take of species in violation of section 9 of the ESA. If the applicant has plans or activities in an area where endangered and threatened species are located, they may wish to ensure that they are protected from potential take liability under ESA section 9 by obtaining an ESA section 10 permit or by requesting formal consultation under ESA section 7. Applicants that are unsure whether to pursue a section 10 permit or a section 7 consultation for takings protection should confer with the appropriate United States Fish and Wildlife Service (USFWS) office or the National Marine Fisheries Service (NMFS), (jointly the Services).

Currently, there are 20 species of concern for applicants applying for permit coverage, namely the Dwarf wedgemussel (*Alasmidonta heterodon*), Northeastern bulrush (*Scirpus ancistrochaetus*), Sandplain gerardia (*Agalinis acuta*), Piping Plover (*Charadrius melodus*), Roseate Tern (*Sterna dougallii*), Northern Red-bellied cooter (*Pseudemys rubriventis*), Bog Turtle (*Glyptemys muhlenbergii*), Small whorled Pogonia (*Isotria medeoloides*), Puritan tiger beetle (*Cicindela puritana*), American burying beetle (*Nicrophorus americanus*), Northeastern beach tiger beetle (*Cicindela dorsalis*), Northern Long-eared Bat (*Myotis septentrionalis*), Atlantic Sturgeon (*Acipenser oxyrinchus*), Shortnose Sturgeon (*Acipenser brevirostrum*), North Atlantic Right Whale (*Eubalaena glacialis*), Humpback Whale (*Megaptera novaengliae*), Fin Whale (*Balaenoptera physalus*), Kemp’s Ridley Sea Turtle (*Lepidochelys kempii*), Loggerhead Sea Turtle (*Caretta caretta*), Leatherback Sea Turtle (*Dermochelys coriacea*), and the Green Turtle (*Chelonia*

¹ EPA strongly encourages applicants to begin this process at the earliest possible stage to ensure the notification requirements for general permit coverage are complete upon Notice of Intent (NOI) submission.

² Section 9 of the ESA prohibits any person from “taking” a listed species (e.g. harassing or harming it) unless: (1) the taking is authorized through an “incidental take statement” as part of completion of formal consultation according to ESA section 7; (2) where an incidental take permit is obtained under ESA section 10 (which requires the development of a habitat conversion plan; or (3) where otherwise authorized or exempted under the ESA. This prohibition applies to all entities including private individuals, businesses, and governments.

mydas). The Atlantic Sturgeon, Shortnose Sturgeon, North Atlantic Right Whale, Humpback Whale, Fin Whale, Loggerhead Sea Turtle, Kemp's Ridley Sea Turtle, Leatherback Sea Turtle and Green Turtle are listed under the jurisdiction of NMFS. The Dwarf wedgemussel, Northeastern bulrush, Sandplain gerardia, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Small whorled Pogonia, Roseate Tern, Puritan tiger beetle, Northeastern beach tiger beetle, Northern Long-eared Bat and American burying beetle are listed under the jurisdiction of the U.S. Fish and Wildlife Service.

Any applicant seeking coverage under this general permit, must consult with the Services where appropriate. When listed species are present, permit coverage is only available if EPA determines, or the applicant determines and EPA concurs, that the discharge or discharge related activities will have "no affect" on the listed species or critical habitat, or the applicant or EPA determines that the discharge or discharge related activities are "not likely to adversely affect" listed species or critical habitat and formal or informal consultation with the Services has been concluded and results in written concurrence by the Services that the discharge is "not likely to adversely affect" an endangered or threatened species or critical habitat.

EPA may designate the applicants as non-Federal representatives for the general permit for the purpose of carrying out formal or informal consultation with the Services (See 50 CFR §402.08 and §402.13). By terms of this permit, EPA has automatically designated operators as non-Federal representatives for the purpose of conducting formal or informal consultation with the U.S. Fish and Wildlife Service. EPA has not designated operators as non-Federal representatives for the purpose of conducting formal or informal consultation with the National Marine Fisheries Service. EPA has determined that discharges from MS4s are not likely to adversely affect listed species or critical habitat under the jurisdiction of the National Marine Fisheries Service. EPA has initiated informal consultation with the National Marine Fisheries Service on behalf of all permittees and no further action is required by permittees in order to fulfill ESA requirements of this permit related to species under the jurisdiction of NMFS

B. The U.S. Fish and Wildlife Service ESA Eligibility Process

Before submitting a notice of intent (NOI) for coverage by this permit, applicants must determine whether they meet the ESA eligibility criteria by following the steps in Section B of this Appendix. Applicants that cannot meet the eligibility criteria in Section B must apply for an individual permit.

The USFWS ESA eligibility requirements of this permit relating to the Dwarf wedgemussel, Northeastern bulrush, Sandplain gerardia, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Small whorled Pogonia, Roseate Tern, Puritan tiger beetle, Northeastern beach tiger beetle, Northern Long-eared Bat and American burying beetle may be satisfied by documenting that one of the following criteria has been met:

USFWS Criterion A: No endangered or threatened species or critical habitat are in proximity to the stormwater discharges or discharge related activities.

USFWS Criterion B: In the course of formal or informal consultation with the Fish and Wildlife Service, under section 7 of the ESA, the consultation resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by USFWS on a finding that the stormwater discharges and

discharge related activities are “not likely to adversely affect” listed species or critical habitat (informal consultation).

USFWS Criterion C: Using the best scientific and commercial data available, the effect of the stormwater discharge and discharge related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the applicant and affirmed by EPA, that the stormwater discharges and discharge related activities will have “no affect” on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the USFWS.

1. The Steps to Determine if the USFWS ESA Eligibility Criteria Can Be Met

To determine eligibility, you must assess the potential effects of your known stormwater discharges and discharge related activities on listed species or critical habitat, PRIOR to completing and submitting a Notice of Intent (NOI). You must follow the steps outlined below and document the results of your eligibility determination.

Step 1 – Determine if you can meet USFWS Criterion A

USFWS Criterion A: You can certify eligibility, according to USFWS Criterion A, for coverage by this permit if, upon completing the Information, Planning, and Conservation (IPaC) online system process, you printed and saved the preliminary determination which indicated that federally listed species or designated critical habitats are not present in the action area. See Attachment 1 to Appendix C for instructions on how to use IPaC.

If you have met USFWS Criterion A skip to Step # 4.

If you have not met USFWS Criterion A, go to Step # 2.

Step 2 – Determine if You Can Meet Eligibility USFWS Criteria B

USFWS Criterion B: You can certify eligibility according to USFWS Criteria B for coverage by this permit if you answer “Yes” to **all** of the following questions:

- 1) Does your action area contain one or more of the following species: Sandplain gerardia, Small whorled Pogonia, American burying beetle, Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?
AND
- 2) Did your assessment of the discharge and discharge related activities indicate that the discharge or discharge related activities “may affect” or are “not likely to adversely affect” listed species or critical habitat?
AND
- 3) Did you contact the USFWS and did the formal or informal consultation result in either a “no jeopardy” opinion by the USFWS (for formal consultation) or concurrence by the

USFWS that your activities would be “not likely to adversely affect” listed species or critical habitat (for informal consultation)?

AND

- 4) Do you agree to implement all measures upon which the consultation was conditioned?
- 5) Do you agree that if, during the course of the permit term, you plan to install a structural BMP not identified in the NOI that you will re-initiate informal or formal consultation with USFWS as necessary?

Use the guidance below Step 3 to understand effects determination and to answer these questions.

If you answered “Yes” to all four questions above, you have met eligibility USFWS Criteria B. Skip to Step 4.

If you answered “No” to any of the four questions above, go to Step 3.

Step 3 – Determine if You Can Meet Eligibility USFWS Criterion C

USFWS Criterion C: You can certify eligibility according to USFWS Criterion C for coverage by this permit if you answer “Yes” to both of the following question:

- 1) Does your action area contain one or more of the following species: Northern Long-eared Bat, Sandplain gerardia, Small whorled Pogonia and/or American burying beetle and **does not** contain one any following species: Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?³
- OR
- 2) Did the assessment of your discharge and discharge related activities and indicate that there would be “no affect” on listed species or critical habitat and EPA provided concurrence with your determination?
- 3) Do you agree that if, during the course of the permit term, you plan to install a structural BMP not identified in the NOI that you will to conduct an endangered species screening for the proposed site and contact the USFWS if you determine that the new activity “may affect” or is “not likely to adversely affect” listed species or critical habitat under the jurisdiction of the USFWS.

Use the guidance below to understand effects determination and to answer these questions.

If you answered “Yes” to both the question above, you have met eligibility USFWS Criterion C. Go to Step 4.

If you answered “No” to either of the questions above, you are not eligible for coverage by this permit. You must submit an application for an individual permit for your stormwater discharges. (See 40 CFR 122.21).

USFWS Effects Determination Guidance:

If you are unable to certify eligibility under USFWS Criterion A, you must assess whether your stormwater discharges and discharge-related activities “may affect”, will have “no affect” or are “not likely to adversely affect” listed species or critical habitat. “Discharge-related activities” include: activities which cause, contribute to, or result in point source stormwater pollutant discharges; and measures to provide treatment for stormwater discharges including the siting, construction and operational procedures to control, reduce or prevent water pollution. Please be aware that no protection from incidental take liability is provided under this criterion.

The scope of effects to consider will vary with each system. If you are having difficulty in determining whether your system is likely to cause adverse effects to a listed species or critical habitat, you should contact the USFWS for assistance. In order to complete the determination of effects it may be necessary to follow the formal or informal consultation procedures in section 7 of the ESA.

Upon completion of your assessment, document the results of your effects determination. If your results indicate that stormwater discharges or discharge related activities will have “no affect” on threatened or endangered species or critical habitat and EPA concurs with your determination, you are eligible under USFWS Criterion C of this Appendix. Your determination may be based on measures that you implement to avoid, eliminate, or minimized adverse effects.

If the determination is “May affect” or “not likely to adversely affect” you must contact the USFWS to discuss your findings and measures you could implement to avoid, eliminate, or minimize adverse effects. If you and the USFWS reach agreement on measures to avoid adverse effects, you are eligible under USFWS Criterion B. Any terms and/or conditions to protect listed species and critical habitat that you relied on in order to complete an adverse effects determination, must be incorporated into your Storm Water Management Program (required by this permit) and implemented in order to maintain permit eligibility.

If endangered species issues cannot be resolved: If you cannot reach agreement with the USFWS on measures to avoid or eliminate adverse effects then you are not eligible for coverage under this permit. You must seek coverage under an individual permit.

Effects from stormwater discharges and discharge-related activities which could pose an adverse effect include:

- *Hydrological:* Stormwater discharges may cause siltation, sedimentation, or induce other changes in receiving waters such as temperature, salinity or pH. These effects will vary with the amount of stormwater discharged and the volume and condition of the receiving water. Where a discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely.
- *Habitat:* Excavation, site development, grading and other surface disturbance activities, including the installation or placement of treatment equipment may adversely affect listed species or their habitat. Stormwater from the small MS4 may inundate a listed species habitat.

- *Toxicity*: In some cases, pollutants in the stormwater may have toxic effects on listed species.

Step 4 - Document Results of the Eligibility Determination

Once the USFWS ESA eligibility requirements have been met, you shall include documentation of USFWS ESA eligibility in the Storm Water Management Program required by the permit. Documentation for the various eligibility criteria are as follows:

- USFWS Criterion A: A copy of the IPaC generated preliminary determination letter indicating that no listed species or critical habitat is present within your action area. You shall also include a statement on how you determined that no listed species or critical habitat are in proximity to your stormwater system or discharges.
- USFWS Criterion B: A dated copy of the USFWS letter of concurrence on a finding of “no jeopardy” (for formal consultation) or “not likely to adversely affect” (for informal consultation) regarding the ESA section 7 consultation.
- USFWS Criterion C: A dated copy of the EPA concurrence with the operator’s determination that the stormwater discharges and discharge-related activities will have “no affect” on listed species or critical habitat.

C. Submittal of Notice of Intent

Once the ESA eligibility requirements of Part C of this Appendix have been met you may submit the Notice of Intent indicating which Criterion you have met to be eligible for permit coverage. Signature and submittal of the NOI constitutes your certification, under penalty of law, of eligibility for permit coverage under 40 CFR 122.21.

D. Duty to Implement Terms and Conditions upon which Eligibility was Determined

You must comply with any terms and conditions imposed under the ESA eligibility requirements to ensure that your stormwater discharges and discharge related activities do not pose adverse effects or jeopardy to listed species and/or critical habitat. You must incorporate such terms and conditions into your Storm Water Management Program as required by this permit. If the ESA eligibility requirements of this permit cannot be met, then you may not receive coverage under this permit and must apply for an individual permit.

E. Services Information

United States Fish and Wildlife Service Office

National websites for Endangered Species Information:

Endangered Species home page: <http://endangered.fws.gov>

ESA Section 7 Consultations: <http://endangered.fws.gov/consultation/index.html>

Information, Planning, and Conservation System (IPAC): <http://ecos.fws.gov/ipac/>

U.S. FWS – Region 5

Supervisor

New England Field Office
U.S. Fish and Wildlife Services
70 Commercial Street, Suite 300
Concord, NH 03301

Natural Heritage Network

The Natural Heritage Network comprises 75 independent heritage program organizations located in all 50 states, 10 Canadian provinces, and 12 countries and territories located throughout Latin America and the Caribbean. These programs gather, manage, and distribute detailed information about the biological diversity found within their jurisdictions. Developers, businesses, and public agencies use natural heritage information to comply with environmental laws and to improve the environmental sensitivity of economic development projects. Local governments use the information to aid in land use planning.

The Natural Heritage Network is overseen by NatureServe, the Network's parent organization, and is accessible on-line at: http://www.natureserve.org/nhp/us_programs.htm, which provides websites and other access to a large number of specific biodiversity centers.

U.S. Fish and Wildlife IPaC system instructions

Use the following protocol to determine if any federally listed species or designated critical habitats under USFWS jurisdiction exist in your action area:

Enter your project specific information into the “Initial Project Scoping” feature of the Information, Planning, and Conservation (IPaC) system mapping tool, which can be found at the following location:

<http://ecos.fws.gov/ipac/>

- a. Indicate the action area¹ for the MS4 by either:
 - a. Drawing the boundary on the map or by uploading a shapefile.
Select “Continue”

- c. Click on the “SEE RESOURCE LIST” button and on the next screen you can export a trust resources list. This will provide a list of natural resources of concern, which will include an Endangered Species Act Species list. You may also request an official species list under “REGULATORY DOCUMENTS” Save copies and retain for your records

¹ The action area is defined by regulation as all areas to be affected directly or indirectly by the action and not merely the immediate area involved in the action (50 CFR §402.02). This analysis is not limited to the "footprint" of the action nor is it limited by the Federal agency's authority. Rather, it is a biological determination of the reach of the proposed action on listed species. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area.

The documentation used by a Federal action agency to initiate consultation should contain a description of the action area as defined in the Services' regulations and explained in the Services' consultation handbook. If the Services determine that the action area as defined by the action agency is incorrect, the Services should discuss their rationale with the agency or applicant, as appropriate. Reaching agreement on the description of the action area is desirable but ultimately the Services can only consult when an action area is defined properly under the regulations.

For storm water discharges or discharge related activities, the action area should encompass the following:

- The immediate vicinity of, or nearby, the point of discharge into receiving waters.
- The path or immediate area through which or over which storm water flows from the municipality to the point of discharge into the receiving water. This includes areas in the receiving water downstream from the point of discharge.
- Areas that may be impacted by construction or repair activities. This extends as far as effects related to noise (from construction equipment, power tools, etc.) and light (if work is performed at night) may reach.

The action area will vary with the size and location of the outfall pipe, the nature and quantity of the storm water discharges, and the type of receiving waters, among other factors.

Attachment B

Town of Woburn IPaC Official Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

In Reply Refer To:

July 12, 2018

Consultation Code: 05E1NE00-2018-SLI-2367

Event Code: 05E1NE00-2018-E-05514

Project Name: Woburn Stormwater

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2018-SLI-2367

Event Code: 05E1NE00-2018-E-05514

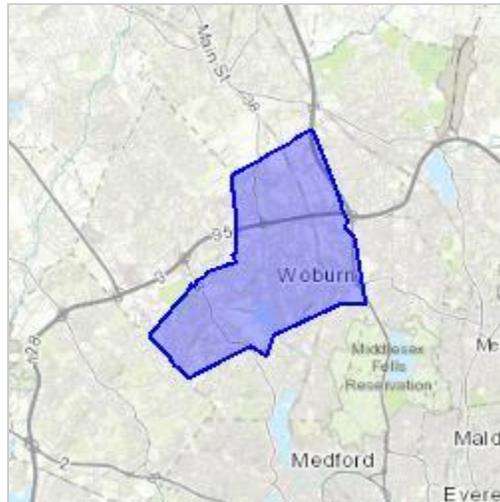
Project Name: Woburn Stormwater

Project Type: ** OTHER **

Project Description: This is part of development of a Stormwater Master Plan, City will be looking at several different projects City-wide to improve stormwater management.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.489847860235244N71.14316148822493W>



Counties: Middlesex, MA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Attachment C
Federally Listed Endangered and Threatened Species in
Massachusetts

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN
MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Suffolk	Piping Plover	Threatened	Coastal Beaches	Revere, Winthrop
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

¹Migratory only, scattered along the coast in small numbers

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.

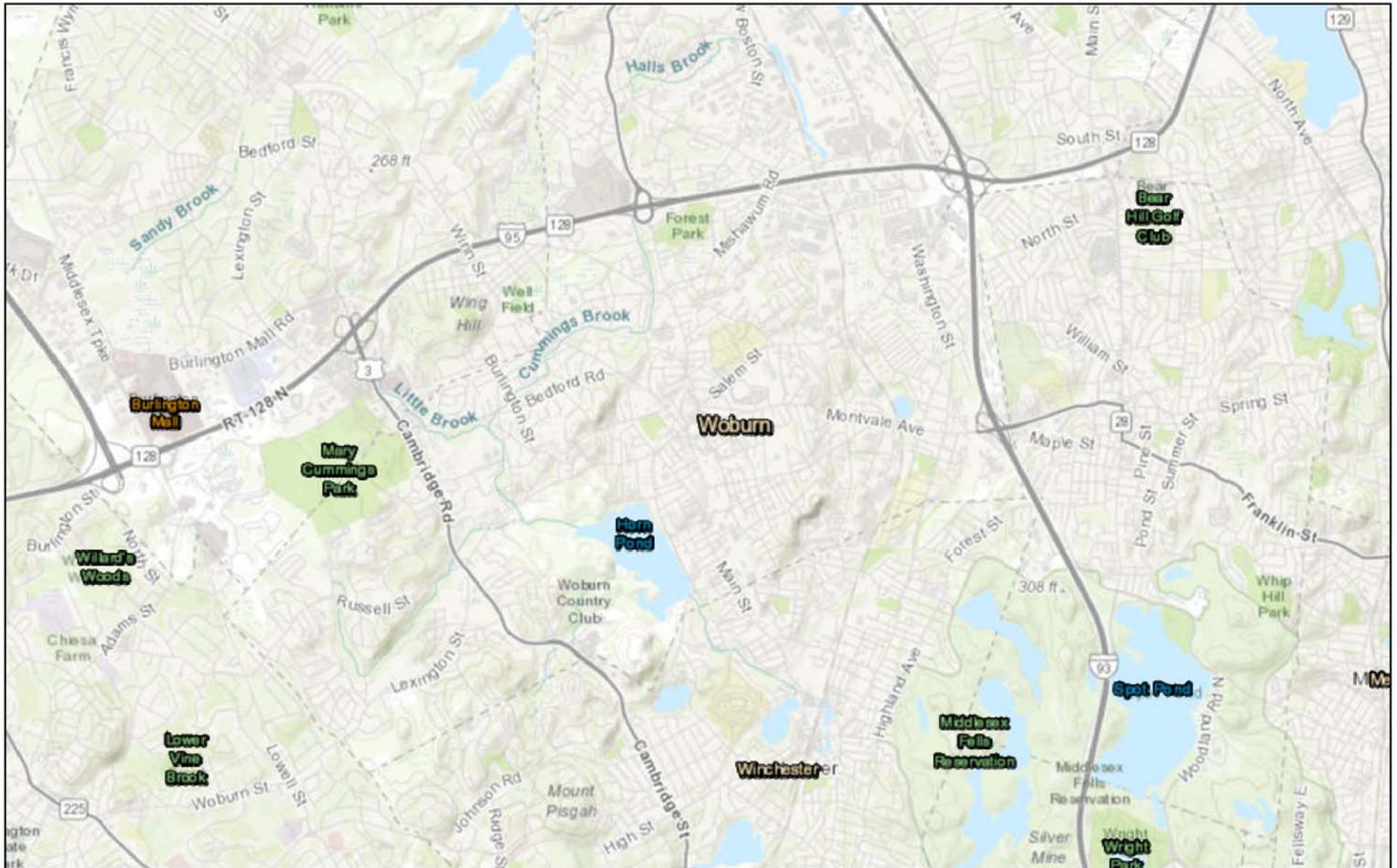
-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.

-Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.

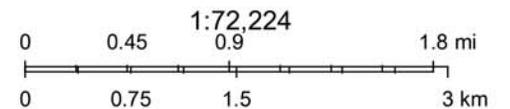
Attachment D

Massachusetts Natural Heritage and Endangered Species Program
(NHESP) Northern Long-eared Bat Hibernaculum Location Map
and Fact Sheet

Northern Longeared bat Hibernacula & Maternity Roosts



July 12, 2018



- MA_NHESP_NLEB_Maternity_Roost_Tree_Locations
- MA_Northern_Long_eared_Bat_Winter_Hibernacula

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri



Natural Heritage & Endangered Species Program

www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Northern Myotis *Myotis septentrionalis*

State Status: Endangered
Federal Status: Threatened

DESCRIPTION: The Northern Myotis is a small bat with large ears, which when pushed forward extend at least 4 mm past its nose. Its fur and wing membranes are light brown, giving it an overall somewhat uniform brown appearance. The hairs on its back are bicolored, with a dark base and lighter tip. The Northern Myotis averages 50-95 mm in total length, with a tail of 35-42 mm. In weight, it averages 5-8 g. This bat is typically found roosting in trees and feeding in forested habitats, but may occasionally be found in human habitations.

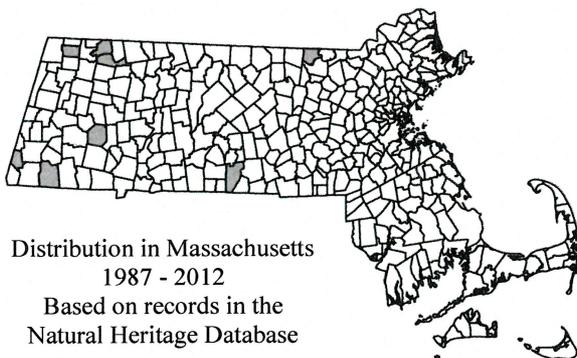
SIMILAR SPECIES: The best diagnostic character to distinguish the Northern Myotis from other species in Massachusetts is its long ears. The rare Little Brown Myotis (*Myotis lucifugus*, Endangered) and Indiana Myotis (*Myotis sodalis*, Endangered, federally Endangered) are similar in appearance, but have shorter ears which typically do not extend beyond their nose when pushed forward. The tragus, which is a fleshy projection which sticks up in front of the ear opening, is long and narrowly pointed in the Northern Myotis, while it is shorter and blunt in the Little Brown Myotis. The Little Brown Myotis also has glossier fur and a shorter tail relative to its body length. The Indiana Myotis has a



Photo: Tammy Ciesla, MassWildlife

keeled calcar (a ridge of cartilage between the foot and the tail), which the Northern Myotis lacks. Other features of interest in identification include the bat's hairless interfemoral membrane (the skin stretching between the legs and tail) and lack of a black face mask (which is characteristic of Small-footed Myotis, *Myotis leibii*, Endangered).

HABITAT IN MASSACHUSETTS: In the warmer months, colonies of Northern Myotis may be found roosting and foraging in forested areas. Preferred roosts are in clustered stands of large trees, especially in live or dead hardwoods with large, tall cavities. These bats are found in other tree roosts as well, and occasionally in human-made structures. Northern Myotis forage under the forest canopy in structurally complex habitats, often above small ponds, vernal pools or streams, along gravel paths or roads, and at the forest edge. The bats are widespread in Massachusetts, and have been found in 11



Distribution in Massachusetts
1987 - 2012
Based on records in the
Natural Heritage Database

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

www.mass.gov/nhesp

of 14 counties. In winter, Northern Myotis hibernate in natural caves and abandoned mines, preferring habitats where the humidity is so high that water droplets sometimes cover their fur. Winter hibernacula (hibernation sites) have been reported in Berkshire, Franklin, Hampden, Middlesex, and Worcester counties.

RANGE: The Northern Myotis is found across forested parts of the eastern United States and Canada, west to British Columbia, Wyoming, and Montana, and south into Florida. It was historically common in New England, the Canadian Maritimes, Quebec and Ontario, and uncommon in the western extremes of its range.

LIFE CYCLE/BEHAVIOR: In the summer months, Northern Myotis emerge at dusk from daytime roosts for the first in a series of feeding flights. Their long tails and large wing membranes allow the bats to fly slowly and navigate through cluttered environments. These special adaptations also enable them to glean prey from foliage, in addition to catching insects on the fly. These bats locate resting insects through a combination of passive listening and the emission of high frequency echolocation calls.

Between August and October, the body weight of Northern Myotis increases by up to 45%, as they store fat for winter. In late summer, the bats begin to “swarm” around the entrances of caves, and are thought to be testing the air of possible hibernacula. This is the time when mating occurs, with females storing the sperm within their bodies until spring. By early November, the bats enter hibernation sites. Their metabolisms slow and they enter torpor, but will rouse occasionally throughout the winter to drink water. Northern Myotis share caves with a number of other species, but tend to hibernate singly or in small groups in deep cracks or crevices. They return to the same hibernacula in multiple years, but may not hibernate in the same location every year. Little data are available on migration, but the bats are known to travel up to 56 km from foraging sites to winter hibernacula.

Females bear and rear single young from mid-May through July. The longevity record for the Northern Myotis is 18 years.

POPULATION STATUS IN MASSACHUSETTS, INCLUDING THREATS: The Northern Myotis is listed as Endangered under the Massachusetts

Endangered Species Act. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. In addition, listed animals are specifically protected from activities that disrupt nesting, breeding, feeding, or migration.

Once a common species in the northern United States, populations of the Northern Myotis have been devastated by the spread of White-nose Syndrome. Populations in infected hibernacula in the Northeast have suffered catastrophic losses of 90-100%. White-nose Syndrome is caused by a newly described fungus, *Pseudogymnoascus destructans*, which is believed to be a non-native species accidentally introduced from caves in western Europe. European species of bats have co-evolved with this fungus, so they have a high degree of immunity. The fungus grows over bats while they hibernate, causing them to rouse from dormancy frequently, lose valuable stored fat, and fail to survive the winter. The fungus is believed to be passed from cave to cave primarily by the movements of breeding male bats, but human transport is also thought to be responsible for the infection of some hibernacula.

MANAGEMENT RECOMMENDATIONS: The U.S. Fish & Wildlife Service is working in concert with government and non-profit groups to understand the spread of the fungus and potential for stopping its spread, as well as exploring opportunities for captive breeding of the most vulnerable species. Access to suitable undisturbed hibernacula is essential to the survival of the Northern Myotis, and protection of known sites is paramount. Human disturbance of hibernacula can be discouraged or prevented with the use of gated entrances, in order to avoid arousal of hibernating bats and the spread of fungal spores.

REFERENCES:

- Caceres, M.C., and R.M. Barclay. 2000. Myotis septentrionalis. *Mammalian Species* 634: 1-4.
- French, T.W., J.E. Cardoza, and G.S. Jones. *Homeowner's Guide to Bats*. Massachusetts Department of Fisheries & Wildlife: Westborough, MA.
- Hamilton, Jr., W.J., and J.O. Whitaker, Jr. 1979. *Mammals of the Eastern United States*, Second Edition. Cornell University Press: Ithaca, NY.
- U.S. Fish & Wildlife Service. 2012. “White-nose Syndrome.” <http://whitenosesyndrome.org/>

Updated 2015

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for ‘endangered wildlife conservation’ on your state income tax form, as these donations comprise a significant portion of our operating budget.

www.mass.gov/nhesp

Attachment E

U.S. Fish and Wildlife Service New England Field Office "No
Species Present" Review Letter



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

January 8, 2018

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm> (accessed January 2018)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact David Simmons of this office at 603-227-6425 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

Appendix E

Historic Properties Eligibility Criteria Documentation

National Historic Preservation Act Eligibility Certification

TO: City of Woburn Stormwater Management Program Files
FROM: Tighe & Bond
COPY: John Duran, P.E., Superintendent of Public Works
John Corey, Jr., P.E., City Engineer
DATE: November 27, 2018

Tighe & Bond has completed the National Historic Preservation Act Eligibility Determination screening process in accordance with Part 1.9.2 and Appendix D of U.S. EPA's National Pollutant Discharge Elimination System (NPDES) General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts (see Attachment A of this memorandum), effective July 1, 2018, and determined that the **City of Woburn** meets **Criterion A: The discharges do not have the potential to cause effects on historic properties.**

Tighe & Bond followed the screening process included in Appendix D and has determined Woburn is an existing facility authorized by the previous permit and therefore meets Criterion A (see Question 1 in Appendix D of the Permit) and is not, as part of developing and submitting the Notice of Intent for permit coverage, undertaking any activity involving subsurface land disturbance less than an acre. Based on this screening process, the City of Woburn's stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities will not have an effect on a property that is listed or eligible for listing on the National Register of Historic Properties (NRHP) and no further action is necessary at this time.

Attachment B to this memorandum includes a list of the federal- and state-listed historic areas, buildings, burial grounds, objects, and structures downloaded from the Massachusetts Cultural Resource Information System (MACRIS) that is current as of July 12, 2018. If the City undertakes construction on or around a property that is listed or eligible for listing, the City will coordinate with the State Historic Preservation Officer (SHPO) (i.e. the Massachusetts Historical Commission) by submitting a Project Notification Form and associated documentation for the project. As applicable for each project, the City will implement measures to avoid or minimize adverse impacts on places listed, or eligible for listing, on the NRHP, including any conditions imposed by the SHPO or THPO. If the City fails to document and implement such measures, those discharges are ineligible for coverage under EPA's Small MS4 General Permit.

Attachment A

Appendix D of U.S. EPA's National Pollutant Discharge Elimination System (NPDES) General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts

Appendix D National Historic Preservation Act Guidance

Background

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of Federal “undertakings” on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term federal “undertaking” is defined in the NHPA regulations to include a project, activity, or program of a federal agency including those carried out by or on behalf of a federal agency, those carried out with federal financial assistance, and those requiring a federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR 800.16(1).

EPA’s issuance of a National Pollutant Discharge Elimination System (NPDES) General Permit is a federal undertaking within the meaning of the NHPA regulations and EPA has determined that the activities to be carried out under the general permit require review and consideration, in order to be in compliance with the federal historic preservation laws and regulations. Although individual submissions for authorization under the general permit do not constitute separate federal undertakings, the screening processes provides an appropriate site-specific means of addressing historic property issues in connection with EPA’s issuance of the permit. To address any issues relating to historic properties in connection with the issuance of this permit, EPA has included a screening process for applicants to identify whether properties listed or eligible for listing on the National Register of Historic Places are within the path of their discharges or discharge-related activities (including treatment systems or any BMPs relating to the discharge or treatment process) covered by this permit.

Applicants seeking authorization under this general permit must comply with applicable, State, Tribal, and local laws concerning the protection of historic properties and places and may be required to coordinate with the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO) and others regarding effects of their discharges on historic properties.

Activities with No Potential to Have an Effect on Historic Properties

A determination that a federal undertaking has no potential to have an effect on historic properties fulfills an agency’s obligations under NHPA. EPA has reason to believe that the vast majority of activities authorized under this general permit will have no potential effects on historic properties. This permit typically authorizes discharges from existing facilities and requires control of the pollutants discharged from the facility. EPA does not anticipate effects on historic properties from the pollutants in the authorized discharges. Thus, to the extent EPA’s issuance of this general permit authorizes discharges of such constituents, confined to existing channels, outfalls or natural drainage areas, the permitting action does not have the potential to cause effects on historical properties.

In addition, the overwhelming majority of sources covered under this permit will be facilities that are seeking renewal of previous permit authorization. These existing dischargers should have already addressed NHPA issues in the previous general permit as they were required to certify that they were either not affecting historic properties or they had obtained written agreement from

the applicable SHPO or THPO regarding methods of mitigating potential impacts. To the extent this permit authorizes renewal of prior coverage without relevant changes in operations the discharge has no potential to have an effect on historic properties.

Activities with Potential to Have an Effect on Historic Properties

EPA believes this permit may have some potential to have an effect on historic properties the applicant undertakes the construction and/or installation of control measures that involve subsurface disturbance that involves less than 1 acre of land. (Ground disturbances of 1 acre or more require coverage under the Construction General Permit.) Where there is disturbance of land through the construction and/or installation of control measures, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if the applicant is establishing new or altering existing control measures to manage their discharge that will involve subsurface ground disturbance of less than 1 acre, they will need to ensure (1) that historic properties will not be impacted by their activities or (2) that they are in compliance with a written agreement with the SHPO, THPO, or other tribal representative that outlines all measures the applicant will carry out to mitigate or prevent any adverse effects on historic properties.

Examples of Control Measures Which Involve Subsurface Disturbance

The type of control measures that are presumptively expected to cause subsurface ground disturbance include:

- Dikes
- Berms
- Catch basins, drainage inlets
- Ponds, bioretention areas
- Ditches, trenches, channels, swales
- Culverts, pipes
- Land manipulation; contouring, sloping, and grading
- Perimeter Drains
- Installation of manufactured treatment devices

EPA cautions applicants that this list is non-inclusive. Other control measures that involve earth disturbing activities that are not on this list must also be examined for the potential to affect historic properties.

Certification

Upon completion of this screening process the applicant shall certify eligibility for this permit using one of the following criteria on their Notice of Intent for permit coverage:

Criterion A: The discharges do not have the potential to cause effects on historic properties.

Criterion B: A historic survey was conducted. The survey concluded that no historic properties are present. Discharges do not have the potential to cause effects on historic properties.

Criterion C: The discharges and discharge related activities have the potential to have an effect on historic properties, and the applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the applicant will carry out to mitigate or prevent any adverse effects on historic properties.

Authorization under the general permit is available only if the applicant certifies and documents permit eligibility using one of the eligibility criteria listed above. Small MS4s that cannot meet any of the eligibility criteria in above must apply for an individual permit.

Screening Process

Applicants or their consultant need to answer the questions and follow the appropriate procedures below to assist EPA in compliance with 36 CFR 800.

Question 1: Is the facility an existing facility authorized by the previous permit or a new facility and the applicant is not undertaking any activity involving subsurface land disturbance less than an acre?

YES - The applicant should certify that fact in writing and file the statement with the EPA. This certification must be maintained as part of the records associated with the permit.

The applicant should certify eligibility for this permit using Criterion A on their Notice of Intent for permit coverage. The applicant does not need to contact the state Historic Commission. Based on that statement, EPA will document that the project has “no potential to cause effects” (36 CFR 800.3(a)(1)). There are no further obligations under the Section 106 regulations.

NO- Go to Question 2.

Question 2: Is the property listed in the National Register of Historic Places or have prior surveys or disturbances revealed the existence of a historic property or artifacts?

NO - The applicant should certify that fact in writing and file the statement with the EPA. This certification must be maintained as part of the records associated with the permit.

The applicant should certify eligibility for this permit using Criterion B on their Notice of Intent for permit coverage. The applicant does not need to contact the state Historic Commission. Based on that statement, EPA will document that the project has “no potential to cause effects” (36 CFR 800.3(a)(1)). There are no further obligations under the Section 106 regulations.

YES - The applicant or their consultant should prepare a complete information submittal to the SHPO. The submittal consists of:

- Completed Project Notification Form- forms available at <http://www.sec.state.ma.us/mhc/mhcform/formidx.htm>;

- USGS map section with the actual project boundaries clearly indicated; and
- Scaled project plans showing existing and proposed conditions.

(1) Please note that the SHPO does not accept email for review. Please mail a paper copy of your submittal (Certified Mail, Return Receipt Requested) or deliver a paper copy of your submittal (and obtain a receipt) to:

State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Blvd.
Boston MA 02125.

(2) Provide a copy of your submittal and the proof of MHC delivery showing the date MHC received your submittal to:

NPDES Permit Branch Chief
US EPA Region 1 (OEP06-1)
5 Post Office Square, Suite 100
Boston MA 02109-3912.

The SHPO will comment within thirty (30) days of receipt of complete submittals, and may ask for additional information. Consultation, as appropriate, will include EPA, the SHPO and other consulting parties (which includes the applicant). The steps in the federal regulations (36 CFR 800.2 to 800.6, etc.) will proceed as necessary to conclude the Section 106 review for the undertaking. **The applicant should certify eligibility for this permit using Criterion C on their Notice of Intent for permit coverage.**

Attachment B

Massachusetts Cultural Resource Information System (MACRIS)
List of federal- and state-listed historic areas, buildings, burial
grounds, objects, and structures

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Woburn; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
WOB.A	Battle Road - Old Lexington Road Area		Woburn	
WOB.B	Middlesex Canal		Woburn	
WOB.C	Metropolitan Park System of Greater Boston		Woburn	
WOB.D	Middlesex Canal Area		Woburn	
WOB.E	Diners of Massachusetts		Woburn	
WOB.F	Woburn Public Library		Woburn	
WOB.G	First Burial Ground		Woburn	
WOB.H	Baldwin Homestead Historic District		Woburn	
WOB.I	Saint Joseph's Roman Catholic Church Complex		Woburn	
WOB.J	Middlesex Canal Historic and Archaeological		Woburn	
WOB.K	Expanded Baldwin Homestead Historic District		Woburn	
WOB.L	Woburn Jewish Cemeteries		Woburn	
WOB.15	U. S. Post Office - Woburn Center Station	1 Abbott St	Woburn	1911
WOB.1	Baldwin, Loammie Mansion	2 Alfred St	Woburn	c 1750
WOB.46	Simonds, George A. House	1 Arlington Rd	Woburn	c 1900
WOB.47	Johnson, John House	4 Arlington Rd	Woburn	c 1860
WOB.291		6 Arlington Rd	Woburn	c 1830
WOB.293		8 Arlington Rd	Woburn	c 1910
WOB.48	Dow, Carrie Ellis - Lynch, Thomas K. House	9 Arlington Rd	Woburn	c 1890
WOB.294	Taylor, James Dexter House	10 Arlington Rd	Woburn	c 1860
WOB.49	Davis, William Frederic House	11 Arlington Rd	Woburn	1888
WOB.295		14 Arlington Rd	Woburn	c 1900
WOB.296		16 Arlington Rd	Woburn	c 1900
WOB.50	Ramsdell, Julius F. House	17 Arlington Rd	Woburn	c 1898
WOB.298	Trull, Alfred A. House	22 Arlington Rd	Woburn	c 1850
WOB.300		24 Arlington Rd	Woburn	c 1900
WOB.301		26 Arlington Rd	Woburn	c 1900

Inv. No.	Property Name	Street	Town	Year
WOB.302		30 Arlington Rd	Woburn	c 1890
WOB.303		34 Arlington Rd	Woburn	c 1890
WOB.305		36 Arlington Rd	Woburn	c 1900
WOB.635	Brown, Frederic J. House	37 Arlington Rd	Woburn	c 1882
WOB.307	Kean, Frederick Clarence House	40 Arlington Rd	Woburn	1906
WOB.636	Barnes, Rev. William S. - Ronco, David House	41 Arlington Rd	Woburn	c 1870
WOB.677	Hudson, Edward W. House	45 Arlington Rd	Woburn	c 1880
WOB.311		46 Arlington Rd	Woburn	c 1962
WOB.313	Parker, Frederick Chandler House	48 Arlington Rd	Woburn	c 1840
WOB.315		50 Arlington Rd	Woburn	c 1962
WOB.325		61 Arlington Rd	Woburn	c 1910
WOB.318	Butts, Charles A. House	62 Arlington Rd	Woburn	1928
WOB.326		63 Arlington Rd	Woburn	c 1900
WOB.319		64 Arlington Rd	Woburn	c 1910
WOB.327		65 Arlington Rd	Woburn	c 1930
WOB.322		66 Arlington Rd	Woburn	c 1890
WOB.329		69 Arlington Rd	Woburn	c 1900
WOB.637	Crovo, Harry House	70 Arlington Rd	Woburn	1924
WOB.338	Hudson, Edward W. Double House	92 Arlington Rd	Woburn	c 1860
WOB.638	McCauley, Patrick Filling Station	92 Arlington Rd	Woburn	r 1920
WOB.339		100 Arlington Rd	Woburn	c 1960
WOB.340		106 Arlington Rd	Woburn	c 1930
WOB.341		108 Arlington Rd	Woburn	c 1940
WOB.342		110 Arlington Rd	Woburn	c 1940
WOB.343	McLaughlin, James A. House	112 Arlington Rd	Woburn	c 1918
WOB.344		114 Arlington Rd	Woburn	c 1900
WOB.345		116 Arlington Rd	Woburn	c 1960
WOB.346		120 Arlington Rd	Woburn	c 1957
WOB.347		126 Arlington Rd	Woburn	c 1957
WOB.348		130 Arlington Rd	Woburn	c 1959
WOB.350	Leathe, Josiah - Burke, Patrick House	138 Arlington Rd	Woburn	c 1850
WOB.640	Donahue, Patrick Double House	6 Ash St	Woburn	c 1875
WOB.641	Sloan, Patrick - McGowan, Charles E. House	10 Ash St	Woburn	c 1870
WOB.642	Meehan, Bernard House	12 Ash St	Woburn	c 1870
WOB.248		2 Ashburton Ave	Woburn	c 1940
WOB.515	Stewart, Joseph E. House	27 Auburn St	Woburn	c 1880
WOB.516	McDermott, Michael House	18 Bacon St	Woburn	c 1887
WOB.356	Rand, Charles H. House	6 Beach St	Woburn	c 1870

Inv. No.	Property Name	Street	Town	Year
WOB.357	Knight, Alden House	10 Beach St	Woburn	c 1860
WOB.358	Kenney, John P. House	11 Beach St	Woburn	c 1926
WOB.359	Wright, Jacob House	15 Beach St	Woburn	c 1875
WOB.360	French, Charles P. - McHugh, Annie House	18-20 Beach St	Woburn	c 1910
WOB.361	Cummings, William H. - Wood, Charles Lincoln House	19 Beach St	Woburn	c 1882
WOB.518	Winn, J. House	5 Beacon St	Woburn	r 1830
WOB.519	Winn, J. House	7 Beacon St	Woburn	c 1840
WOB.520	Gifford, Seth - Hurd, E. Arthur House	9 Beacon St	Woburn	c 1887
WOB.521	Winn, Joseph - Gifford, Seth House	11 Beacon St	Woburn	c 1830
WOB.522	Simonds, Susan House	13 Beacon St	Woburn	c 1860
WOB.517	O'Hara, Martin House	22 Beacon St	Woburn	c 1894
WOB.51	Cutler, Warren House	40 Beacon St	Woburn	c 1860
WOB.52	Nichols, Frank C. Double House	43 Beacon St	Woburn	c 1890
WOB.362	Bowen, John - Shea, Michael House	49 Bedford Rd	Woburn	c 1870
WOB.523	Breslin, Charles House	80 Bedford Rd	Woburn	c 1850
WOB.524	Given, Frederic House	116 Bedford Rd	Woburn	c 1880
WOB.525	Johnson, Oscar House	118 Bedford Rd	Woburn	c 1916
WOB.526	Cummings, John House	120 Bedford Rd	Woburn	c 1810
WOB.527	Wenzell, Henry - Blaney, George Arnold House	131 Bedford Rd	Woburn	c 1865
WOB.528	Cummings, John - Stevenson, Matthew House	134 Bedford Rd	Woburn	c 1860
WOB.529	McLaughlin, Neil - Ellard, John House	135 Bedford Rd	Woburn	c 1860
WOB.530	Cummings, John - O'Rourke, Edward House	136 Bedford Rd	Woburn	c 1860
WOB.531		137 Bedford Rd	Woburn	c 1910
WOB.532	Cummings, Cyrus - Glass, Isabella G. House	141 Bedford Rd	Woburn	c 1870
WOB.533	Cummings, Cyrus Double House and Market	143 Bedford Rd	Woburn	c 1860
WOB.534	Cummings, John - Busteed, Adam Double House	157-159 Bedford Rd	Woburn	c 1810
WOB.535	Bacon, John - Doherty, John A. Double House	161-163 Bedford Rd	Woburn	r 1820
WOB.536	Kendall, Nathaniel - Cummings, John Double House	167-169 Bedford Rd	Woburn	c 1840
WOB.537	Downs, Mark - Heald, Alvah House	171 Bedford Rd	Woburn	c 1860
WOB.538	Heald, Alvah Barn	171 Bedford Rd	Woburn	r 1920
WOB.539	Graham, A. House	173 Bedford Rd	Woburn	c 1880
WOB.540	Barrett, Abel House	175 Bedford Rd	Woburn	c 1880
WOB.541	Harron, John Garage	175 Bedford Rd	Woburn	r 1920
WOB.2	Martin, Capt. William House	10 Bennett St	Woburn	c 1828
WOB.363	Leahey, Edward M. House	4 Blake St	Woburn	1928
WOB.364	Watt, John - Potamis, Gregory House	5 Blake St	Woburn	1928

Inv. No.	Property Name	Street	Town	Year
WOB.365	Maguire, John House	6 Blake St	Woburn	1928
WOB.366	Blake, Henry C. House	8 Blake St	Woburn	1928
WOB.367	Blake, Henry C. - McGonagle, Daniel House	10 Blake St	Woburn	1928
WOB.368	Blake, Henry C. - Carpenter, Edna House	1 Blake Terr	Woburn	c 1930
WOB.369	Howe, William House	3 Blake Terr	Woburn	1927
WOB.370	Smith, Kennick R. - Garrity, Mary House	5 Blake Terr	Woburn	1927
WOB.53	Conn, Horace - Place, Griffin Carriage House	6 Blake Terr	Woburn	c 1868
WOB.371	Blake, Henry C. - Mahoney, Edward House	7 Blake Terr	Woburn	1928
WOB.643	Dolan, Thomas House	10 Border St	Woburn	c 1870
WOB.4	Converse, Josiah - Richardson, Bartholomew House	76 Bow St	Woburn	c 1675
WOB.231	Richardson, F. P. Barn	76 Bow St	Woburn	r 1885
WOB.644	McDonald, James - Sullivan, Patrick House	12 Buckman Ct	Woburn	r 1875
WOB.55	Flagg, Benjamin F. House	51 Burlington St	Woburn	c 1880
WOB.56	Blanchard, David O. House	133 Burlington St	Woburn	c 1860
WOB.372	Nichols, Charles A. House	3 Burlington St.	Woburn	c 1870
WOB.34	Cummings, Ebenezer - Cummings, Charles House	35 Cambridge Rd	Woburn	c 1850
WOB.373	Weston, John House	134 Cambridge Rd	Woburn	c 1840
WOB.57	Tarky, William J. House	165 Cambridge Rd	Woburn	c 1920
WOB.58	Hale, Jonas House	210 Cambridge Rd	Woburn	c 1830
WOB.59	Looker, Bertha - Reeves, George House	213 Cambridge Rd	Woburn	c 1910
WOB.60	Russell, George House	216 Cambridge Rd	Woburn	c 1830
WOB.61	Cambridge Street School	216R Cambridge Rd	Woburn	c 1844
WOB.230	Russell, William Barn	216 Cambridge Rd	Woburn	r 1920
WOB.5	Parker, Joseph - Tufts, William A. House	221 Cambridge Rd	Woburn	1782
WOB.374	Parker, Joseph - Heald, Jonathan Bradford House	241 Cambridge Rd	Woburn	c 1800
WOB.26	Saint Joseph's Roman Catholic Rectory	22 Central St	Woburn	c 1840
WOB.27	Saint Joseph's Roman Catholic Rectory Garage	22 Central St	Woburn	c 1920
WOB.940	Saint Joseph's Roman Catholic Church Ballfield	22 Central St	Woburn	c 1920
WOB.542	Bucknam, Asahel Porter House	26 Central St	Woburn	c 1830
WOB.375	Johnson, Nathaniel M. House	3 Charles St	Woburn	c 1840
WOB.376	Shaw, J. W. Double House	5-7 Charles St	Woburn	c 1890
WOB.377	Carter, Alfred Gowing House	6-8 Charles St	Woburn	c 1870
WOB.378	Cole, Joseph H. House	9 Charles St	Woburn	c 1890
WOB.379	Rice, Thomas House	12 Charles St	Woburn	c 1870
WOB.380	Thurston, Samuel House	14 Charles St	Woburn	c 1860
WOB.574	Madan, John Jr. - Cooper, Charles E. Barn	2 Chestnut St	Woburn	c 1840

Inv. No.	Property Name	Street	Town	Year
WOB.62	Skinner, James Leather Company Worker Housing	6 Chestnut St	Woburn	c 1860
WOB.268		37 1/2 Chestnut St	Woburn	c 1880
WOB.269		45 Chestnut St	Woburn	c 1890
WOB.271		47 Chestnut St	Woburn	c 1910
WOB.543	Dow, Stephen Double House	4-6 Church Ave	Woburn	c 1820
WOB.63	Richardson, Lemuel Gerrish House	14 Church Ave	Woburn	c 1860
WOB.199	Richardson, Lemuel Gerrish Carriage House	14 Church Ave	Woburn	
WOB.544	Smith, Susan - Miller, John House	17 Church Ave	Woburn	c 1852
WOB.381	Kelley, Joseph House	10 Church St	Woburn	c 1850
WOB.545	Kelley, Joseph - Poole, Eleazer Flagg Double House	20-22 Church St	Woburn	c 1840
WOB.382	Whitcher, Celenda Thompson House	3 Cleveland Ave	Woburn	1888
WOB.383	Kendrick, Simeon Edgar House	6 Cleveland Ave	Woburn	c 1880
WOB.384	Eames, Henry M. House	7 Cleveland Ave	Woburn	c 1890
WOB.385	Godkin, Bertha House	8 Cleveland Ave	Woburn	c 1890
WOB.386	Conn, George C. House	9 Cleveland Ave	Woburn	c 1890
WOB.387	Long, Margaret I. House	10 Cleveland Ave	Woburn	c 1890
WOB.388	Parker, Gordon House	11 Cleveland Ave	Woburn	c 1890
WOB.389	Cummings, William H. - Burke, Michael F. House	12 Cleveland Ave	Woburn	c 1890
WOB.390		13 Cleveland Ave	Woburn	c 1923
WOB.391		13A Cleveland Ave	Woburn	c 1923
WOB.392	Cummings, William H. House	14 Cleveland Ave	Woburn	c 1890
WOB.393	Sweetser, John H. House	15 Cleveland Ave	Woburn	c 1890
WOB.394	Cummings, Frank H. House	16 Cleveland Ave	Woburn	c 1890
WOB.395	Cummings, William F. - Connolly, Thomas W.	17 Cleveland Ave	Woburn	c 1890
WOB.396	Wheaton, Joseph Ray	18 Cleveland Ave	Woburn	c 1910
WOB.397	Emery, William F. - Leland, Frank House	19 Cleveland Ave	Woburn	c 1880
WOB.398	LeBaron, William H.B. House	21 Cleveland Ave	Woburn	c 1880
WOB.399	Cummings, William H. House	22 Cleveland Ave	Woburn	c 1890
WOB.400	Randall, Hiram G - Wood, Guy House	25 Cleveland Ave	Woburn	c 1880
WOB.401	Kelleher, Timothy House	35 Cleveland Ave	Woburn	c 1915
WOB.402	Clement, Albert A. House	7 Clinton St	Woburn	c 1875
WOB.403	Claridge, Fred H. - Boutwell, James E. House	9 Clinton St	Woburn	c 1870
WOB.404	Temple, Charles Augustus House	10 Clinton St	Woburn	c 1910
WOB.405	Hart - Clinton Hose Company #6	12 Clinton St	Woburn	r 1879
WOB.406	Young, Charles House	14 Clinton St	Woburn	c 1920
WOB.407	Knapp, Josephine House	16 Clinton St	Woburn	c 1875

Inv. No.	Property Name	Street	Town	Year
WOB.408	Firth, John - Teele, Melinda House	17 Clinton St	Woburn	c 1860
WOB.409	Cavicchi, Joseph House	18 Clinton St	Woburn	1925
WOB.411	Brooks, R. W. Double House	19-21 Clinton St	Woburn	c 1880
WOB.410	Murdock, Alexander House	20 Clinton St	Woburn	1893
WOB.412	Sheeran, Frank J. House	22 Clinton St	Woburn	1906
WOB.413	McKay, Joseph House	23 Clinton St	Woburn	1929
WOB.414	Richardson, Marshall L. House	25 Clinton St	Woburn	c 1860
WOB.415	Richardson, Sydney S. Double House	26-28 Clinton St	Woburn	c 1870
WOB.416	Ames, Jacob House	29 Clinton St	Woburn	r 1855
WOB.417	Singer, William J. House	36 Clinton St	Woburn	c 1890
WOB.901	Woburn World War I Memorial	Common St	Woburn	c 1920
WOB.902	U. S. S. Maine Ventilator Cowl	Common St	Woburn	1912
WOB.904	Woburn Spanish American War Statue	Common St	Woburn	1934
WOB.913	Woburn Vietnam War Memorial	Common St	Woburn	c 1980
WOB.914	Woburn Korean War Memorial	Common St	Woburn	1978
WOB.915	Woburn World War II Memorial	Common St	Woburn	1944
WOB.64	Woburn Co-operative Bank	6 Common St	Woburn	1927
WOB.16	Woburn City Hall	10 Common St	Woburn	1930
WOB.65	Grammer, William T. and Samuel House	15 Court St	Woburn	c 1860
WOB.66	Woburn Water Works Engine House	5 Cove St	Woburn	1873
WOB.546	Tripp, Charles Edgar House	2 Eastern Ave	Woburn	c 1890
WOB.547	Fowle, Jeduthun - Pierce, William House	4 Eastern Ave	Woburn	c 1850
WOB.548	Grothe, John Barn	4 Eastern Ave	Woburn	c 1906
WOB.549	Putnam, William R. Double House	33-35 Eastern Ave	Woburn	c 1870
WOB.418	Seaver, John - McGrath, Jame F. House	14 Eaton Ave	Woburn	1897
WOB.419	Lausch, Frederick A. - McHugh, Rev. Thomas F House	16 Eaton Ave	Woburn	1897
WOB.420	Larsen, Hans P. House	18 Eaton Ave	Woburn	1897
WOB.421	Koniares, Theodore House	20 Eaton Ave	Woburn	1928
WOB.422	Kimball, Charles H. - Murray, Francis H. House	21 Eaton Ave	Woburn	1898
WOB.423	Ray, Arthur F. House	24 Eaton Ave	Woburn	1917
WOB.424	McLatchy, Allen H. House	28 Eaton Ave	Woburn	1923
WOB.425	Smith, William P. - Bagnall, Herbert V. House	29 Eaton Ave	Woburn	c 1895
WOB.426	Ray, John Oliver House	33 Eaton Ave	Woburn	1895
WOB.427	Dearborn, Charles A. House	35 Eaton Ave	Woburn	1893
WOB.428	Haber, William - Henchey, Judge William House	41 Eaton Ave	Woburn	1898
WOB.429	Houghton, Thomas Frank House	43 Eaton Ave	Woburn	1892
WOB.430	Bailey, David E. House	45 Eaton Ave	Woburn	1925

Inv. No.	Property Name	Street	Town	Year
WOB.431	Cummings, Eustace House	47 Eaton Ave	Woburn	1921
WOB.432	Cummings, Edward H. House	49 Eaton Ave	Woburn	c 1920
WOB.433	Riley, Thomas F. House	51 Eaton Ave	Woburn	1916
WOB.10	Baldwin Farmhouse	16-18 Elm St	Woburn	c 1820
WOB.67	Kimball, Charles H. House	19 Elm St	Woburn	c 1890
WOB.39	Thompson, Cyrus House	21 Elm St	Woburn	c 1820
WOB.68	Bowser, Fred H. Jr. House	22 Elm St	Woburn	c 1920
WOB.200	Bowser, Fred H. Jr. Garage	22 Elm St	Woburn	c 1920
WOB.40	Thompson, Samuel House	31 Elm St	Woburn	c 1730
WOB.41	Thompson, Eunice Memorial Library	33 Elm St	Woburn	1906
WOB.69	Dearborn, Charles T. House	41 Elm St	Woburn	1882
WOB.70	Buckman, Minot House	43 Elm St	Woburn	c 1885
WOB.201	Mack, Richard - Horne, Chester Garage	43 Elm St	Woburn	c 1920
WOB.42	Thompson, Charles House	44 Elm St	Woburn	c 1800
WOB.71	Goodwin, Mary F. Double House	45 Elm St	Woburn	c 1884
WOB.72	North Congregational Church Parsonage	53 Elm St	Woburn	1894
WOB.202	North Congregational Church Parsonage Garage	53 Elm St	Woburn	r 1920
WOB.73	Bixby, Dr. Josiah Peet House	55 Elm St	Woburn	1893
WOB.203	Bixby, Dr. Josiah Peet Barn	55 Elm St	Woburn	
WOB.43	Thompson, Charles Roswell House	58 Elm St	Woburn	r 1780
WOB.36	Pierce, Charles A. House	59 Elm St	Woburn	c 1900
WOB.74	Carter, Frank House	64 Elm St	Woburn	c 1910
WOB.204		64 Elm St	Woburn	r 1980
WOB.75	Richardson, E. House	65 Elm St	Woburn	c 1880
WOB.205	Shannon, Thomas J. Garage	65 Elm St	Woburn	
WOB.168	Shannon, Thomas J. - Duncan, Andrew House	67R Elm St	Woburn	c 1890
WOB.76	Winn, Abigail House	69 Elm St	Woburn	r 1880
WOB.77	Perkins, Warren B. House	70 Elm St	Woburn	c 1850
WOB.3	Shaw, Lewis - Brooks, H. House	71 Elm St	Woburn	c 1800
WOB.9	Tidd, John House	74 Elm St	Woburn	1809
WOB.78	Winn House	75 Elm St	Woburn	c 1880
WOB.79	Winn House	77 Elm St	Woburn	c 1880
WOB.207	Winn Barn	77 Elm St	Woburn	c 1880
WOB.80	Alley, Charles House	79 Elm St	Woburn	1880
WOB.81	Hopkinson, Sumner House	80 Elm St	Woburn	c 1906
WOB.208	Hopkinson, Sumner Garage	80 Elm St	Woburn	c 1906
WOB.82	Flint, Frederick W. House	81 Elm St	Woburn	c 1890
WOB.11	Rumford, Count Birthplace	90 Elm St	Woburn	1714

Inv. No.	Property Name	Street	Town	Year
WOB.550	Hayward, Alpheus Shaw House	4 Fairmount St	Woburn	c 1860
WOB.551	Seminatore, Salvatore House	8 Flagg St	Woburn	c 1925
WOB.645	Whitney, Lewis Lafayette House	51 Fowle St	Woburn	c 1850
WOB.646	Whitney, Lewis Lafayette Barn	51 Fowle St	Woburn	c 1850
WOB.647	Pollard, S. O. - Cummings, Eustace Carriage House	98 Fowle St	Woburn	c 1870
WOB.83	Wyman, Arthur - Case, Walter House	1 Frances St	Woburn	c 1890
WOB.84	Tidd, Alice Stanwood - Leathe, Henry House	3 Frances St	Woburn	c 1900
WOB.85	Murdock, J. Grafton House	5 Frances St	Woburn	c 1900
WOB.86	Langill, Amos House	9 Frances St	Woburn	c 1896
WOB.87	Murdock, John K. House	10 Frances St	Woburn	1913
WOB.88	Parker, John - Hovey, H. Stillman House	12-16 Frances St	Woburn	c 1875
WOB.89	Thompson, L. Waldo House	17 Frances St	Woburn	1911
WOB.552	Flagg, George - Conn, Horace House	12 Franklin St	Woburn	c 1840
WOB.553	Bancroft, Parker Everton Double House	14-16 Franklin St	Woburn	c 1885
WOB.554	Smith, Cyrus - Wyer, Benjamin Franklin Double Hse	17-19 Franklin St	Woburn	c 1840
WOB.555	Reed, Artemas - Cummings, Joshua House	21 Franklin St	Woburn	1853
WOB.90	Gage, G. R. - Caros, Paul House	22 Franklin St	Woburn	c 1880
WOB.91	Evans, Thomas J. House	25 Franklin St	Woburn	c 1865
WOB.556	Thompson, George - Jameson, John House	27 Franklin St	Woburn	c 1840
WOB.557	Simonds, Edward - Walsh, Dennis House	30 Franklin St	Woburn	c 1849
WOB.558	Whitford, Hiram - Taylor, Susan House	32 Franklin St	Woburn	c 1845
WOB.559	Vinall, Whitney House	33 Franklin St	Woburn	c 1840
WOB.560	Harrington, Charles House	35 Franklin St	Woburn	c 1840
WOB.561	McCauley, John F. - Mahoney, John House	3 Frederick Dr	Woburn	c 1940
WOB.562	Cedario, John - Lovell, Carleton House	10 Frederick Dr	Woburn	c 1940
WOB.648	Fowle, George E. House	67 Garfield Ave	Woburn	c 1865
WOB.649	Kimball, George W. House	76 Garfield Ave	Woburn	c 1872
WOB.650	Kimball, George W. Carriage House	76 Garfield Ave	Woburn	c 1880
WOB.651	Littlefield, Joshua - Miller, William M. House	1 Glenwood St	Woburn	c 1850
WOB.652	Littlefield, Clarence House	9 Glenwood St	Woburn	c 1860
WOB.653	Littlefield, Clarence Carriage House	9 Glenwood St	Woburn	c 1860
WOB.654	Boston Edison Electric Substation	Green St	Woburn	c 1918
WOB.655	Littlefield, Joshua House	18 Green St	Woburn	c 1840
WOB.656	Pollard, Mary S. House	20 Green St	Woburn	c 1925
WOB.657	Ring, Margaret House	22 Green St	Woburn	r 1930
WOB.658	Cottle, Edmund C. - Marion, C. Walter House	25 Green St	Woburn	c 1886

Inv. No.	Property Name	Street	Town	Year
WOB.659	Frisbee, Dr. Jesse Franklin House	26 Green St	Woburn	c 1865
WOB.660	Harkins, Thomas F. Store	26A Green St	Woburn	c 1920
WOB.661	Cummings, Cyrus Jr. House	38 Green St	Woburn	c 1875
WOB.662	Lord, George - White, James N. House	88 Green St	Woburn	c 1885
WOB.663	Larson, Nelse - Casey, William E. House	116 Green St	Woburn	r 1920
WOB.54	Flagg House	129 Harrison Ave	Woburn	c 1820
WOB.678	Richardson, Joseph House	6 Hart Pl	Woburn	c 1850
WOB.679	McLeod, George House	19 Hart Pl	Woburn	1889
WOB.563	Burbank, Daniel House	25 Hawthorne St	Woburn	c 1830
WOB.664	Johnson, Edward F. House	1 Highland St	Woburn	1882
WOB.665	Lewis, Hanson Beetfield House	2A Highland St	Woburn	1851
WOB.666	McDonald, Joseph B. House	4 Highland St	Woburn	c 1870
WOB.92	Cottle, Edmund C. House	14 Highland St	Woburn	c 1875
WOB.209	Cottle, Edmund C. Carriage House	14 Highland St	Woburn	c 1875
WOB.93	Hudson, Edward W. Groundskeeper's Cottage	35 Hudson St	Woburn	c 1870
WOB.905	Revolutionary War Memorial	Johnson St	Woburn	1924
WOB.564	Gleason, Henry A. - Dickinson, Joseph Albert House	1 Johnson St	Woburn	c 1840
WOB.680	Porter, Benjamin T. H. House	2 Johnson St	Woburn	c 1865
WOB.565	Kimball, William Kilroy House	6 Johnson St	Woburn	c 1850
WOB.566	Buckman, Otis - Shattuck, Nathan J. House	7 Johnson St	Woburn	c 1840
WOB.681	Cummings, R. - Balfe, Luke House	14 Kilby St	Woburn	c 1830
WOB.682	Mulligan, Bernard House	17 Kilby St	Woburn	c 1860
WOB.683	Fox, Warren House	21 Kilby St	Woburn	c 1830
WOB.684	Wheeler, John S. House	23 Kilby St	Woburn	c 1860
WOB.686	Parker, Benjamin - Coccoluto, Cosmo House	26 Kilby St	Woburn	c 1840
WOB.685	Fox, Warren - Clements, William House	27-29 Kilby St	Woburn	c 1850
WOB.687	Buckman, Ira House	33 Kilby St	Woburn	c 1840
WOB.264		37 Kilby St	Woburn	c 1950
WOB.265		37 Kilby St	Woburn	c 1980
WOB.266		37 Kilby St	Woburn	c 1980
WOB.688	Stevens, Edwin W. House	48 Kilby St	Woburn	c 1870
WOB.689	Johnson, Oscar E. House	50 Kilby St	Woburn	c 1887
WOB.690	Fox, John William House	54 Kilby St	Woburn	1886
WOB.691	Fox, John William Carriage House	54 Kilby St	Woburn	c 1886
WOB.692	Bryenton, Amos House	60 Kilby St	Woburn	c 1891
WOB.434	Eaton, Marcus - Stuart, Dr. James N. House	61 Kilby St	Woburn	c 1866
WOB.435	Kendall, Nathaniel House	69 Kilby St	Woburn	c 1860

Inv. No.	Property Name	Street	Town	Year
WOB.693	Kenney, Kieran House	73 Kilby St	Woburn	c 1860
WOB.694	Grant, John T. - Donovan, Patrick House	74 Kilby St	Woburn	c 1893
WOB.695	Davis, Albert D. House	78 Kilby St	Woburn	c 1890
WOB.436	Knowlton, Amos House	83 Kilby St	Woburn	c 1860
WOB.696	Cook, George House	87 Kilby St	Woburn	c 1871
WOB.667	Maguire, John H. House	22 Lake Ave	Woburn	c 1880
WOB.437	McGowan, Patrick House	24 Lake Ave	Woburn	c 1880
WOB.351		34 Lake Ave	Woburn	c 1950
WOB.355		1 Lake Circ	Woburn	c 1975
WOB.352		1 Lake Terr	Woburn	c 1955
WOB.353		7 Lake Terr	Woburn	c 1958
WOB.24	Horn Pond House	7 Lakeview Terr	Woburn	c 1820
WOB.94	O'Neill, George C. - Dolan, Elizabeth House	28 Lawrence St	Woburn	c 1925
WOB.567	Ober, Benjamin H. - Manard, William House	6 Lexington St	Woburn	c 1840
WOB.568	McIntire, Joseph - Colomb, Esther House	10 Lexington St	Woburn	c 1845
WOB.569	Colomb, Esther Barn	10 Lexington St	Woburn	r 1900
WOB.570	Thompson, Benjamin F. - Vaughan, William House	12 Lexington St	Woburn	c 1820
WOB.95	Flagg, Benjamin F. - Jones, Jenkins W. House	53 Lexington St	Woburn	c 1840
WOB.210	Jones, Jenkins W. Barn	53 Lexington St	Woburn	c 1840
WOB.7	Gardner, Dea. Joseph House	168 Lexington St	Woburn	1820
WOB.96	Harris, William B. - Pierce, Theodore L. House	183 Lexington St	Woburn	c 1810
WOB.97	Collins, Agnes House	190 Lexington St	Woburn	c 1930
WOB.98	Shannon, Robert J. House	287 Lexington St	Woburn	c 1920
WOB.99	Shannon, James House	299 Lexington St	Woburn	r 1900
WOB.100	Shannon, James W. House	305 Lexington St	Woburn	c 1920
WOB.278		Library Pl	Woburn	c 1980
WOB.438	Scire, Fortunato House	11 Locust St	Woburn	1926
WOB.439	Church, Stillman H. House	2 Lowell St	Woburn	c 1880
WOB.440	Church, Stillman H. House	4-6 Lowell St	Woburn	c 1890
WOB.441	Greydon, Frank W. House	7 Lowell St	Woburn	1896
WOB.442	Minot, Robert S. House	10 Lowell St	Woburn	c 1890
WOB.13	Thompson, Leonard House	11 Lowell St	Woburn	c 1810
WOB.443	Richards, Edward H. House	12 Lowell St	Woburn	c 1890
WOB.444	Minot, Robert S. House	14 Lowell St	Woburn	c 1895
WOB.445	Greydon, William F. - Kerr, Lewis Double House	16 Lowell St	Woburn	c 1920
WOB.446	Young, William Stage House	41 Lowell St	Woburn	c 1779
WOB.101	Fowle, Timothy House	2 Lynn St	Woburn	c 1850

Inv. No.	Property Name	Street	Town	Year
WOB.104	Saint Charles Roman Catholic Elementary School	Main St	Woburn	1907
WOB.903	Woburn Civil War Memorial	Main St	Woburn	1869
WOB.907	Baldwin, Col. Loammi Statue	Main St	Woburn	1917
WOB.102	Saint Charles Roman Catholic Church Rectory	280 Main St	Woburn	1898
WOB.941	Guardian Angel Statue	280 Main St	Woburn	1912
WOB.103	Saint Charles Borromeo Roman Catholic Church	282 Main St	Woburn	1869
WOB.17	Woburn Company G - Fifth Regiment Armory	320 Main St	Woburn	1916
WOB.20	First Congregational Church in Woburn	322 Main St	Woburn	1860
WOB.105	Bank Block - Woburn Masonic Hall	395 Main St	Woburn	1862
WOB.106	Wade, Col. John Block	406 Main St	Woburn	c 1810
WOB.19	Best Petroleum - Colonial Beacon Filling Station	477 Main St	Woburn	r 1925
WOB.571	Parker, Ebenezer - Parker, John House	520 Main St	Woburn	c 1853
WOB.107	Woods, Rev. Frederick House	524 Main St	Woburn	c 1890
WOB.572	Parker, Ebenezer - Hammond, Joseph House	528 Main St	Woburn	c 1840
WOB.108	Young, Mary A. Double House	537 Main St	Woburn	c 1840
WOB.573	Madan, John Jr. - Cooper, Charles E. House	564 Main St	Woburn	c 1840
WOB.109	Hayes, Henry B. House	568 Main St	Woburn	c 1885
WOB.447	Gillette, Osborn D. House	577 Main St	Woburn	c 1895
WOB.448	Lane, Susan M. House	578 Main St	Woburn	c 1895
WOB.449	Almore, The	579 Main St	Woburn	c 1920
WOB.450	Lane, Susan M. - Callahan, Daniel F. House	580 Main St	Woburn	c 1895
WOB.451		581 Main St	Woburn	c 1926
WOB.452	Lane, Susan M. House	582 Main St	Woburn	c 1904
WOB.453	Wyman, Elijah House	590 Main St	Woburn	r 1800
WOB.454	Wyman, Elijah Barn	592 Main St	Woburn	c 1910
WOB.455	Main Street School	595 Main St	Woburn	1794
WOB.110	Ames, Erskine House	596 Main St	Woburn	c 1830
WOB.111	Prior, William A. House	602 Main St	Woburn	r 1890
WOB.112	Murdock, John K. House	604 Main St	Woburn	c 1895
WOB.211	Murdock, John K. Carriage House	604 Main St	Woburn	c 1895
WOB.113	Wade - Wyman, Walter House	605 Main St	Woburn	c 1840
WOB.212	Burdett, C. Fred Garage	605 Main St	Woburn	c 1930
WOB.114	Hartshorne, George Franklin House	607 Main St	Woburn	c 1891
WOB.115	Beggs, Mary House	616 Main St	Woburn	c 1900
WOB.116	Beggs, William House	620 Main St	Woburn	c 1890
WOB.117	Burdett, Fred Hartshorne House	623 Main St	Woburn	c 1895
WOB.118	Conn, Horace - Place, Griffin House	627 Main St	Woburn	c 1868

Inv. No.	Property Name	Street	Town	Year
WOB.119	Place, Everett Griffin House	628 Main St	Woburn	c 1890
WOB.120	Trull, S. Franksford House	629 Main St	Woburn	c 1895
WOB.456		632 Main St	Woburn	c 1900
WOB.457	Pearson, John T. House	635 Main St	Woburn	c 1840
WOB.458	Wyman, W. House	636 Main St	Woburn	r 1830
WOB.459	Fox, Everett House	637 Main St	Woburn	c 1880
WOB.460	Slater, William H. House	639 Main St	Woburn	c 1875
WOB.461	Clement, Albert A. Double House	643-645 Main St	Woburn	c 1880
WOB.462	Buckman, Francis Alvah House	644 Main St	Woburn	c 1885
WOB.463	Buckman, Christina House	646 Main St	Woburn	c 1915
WOB.8	Thompson, Daniel House	649 Main St	Woburn	1760
WOB.464	Thompson, Jonathan House	650 Main St	Woburn	c 1860
WOB.465	Parker, Samuel P. Harness- Upholstery Shop	653 Main St	Woburn	r 1820
WOB.466	Central Square Fire Station	654 Main St	Woburn	1906
WOB.467	Rigby, George Grocery Store	658 Main St	Woburn	c 1880
WOB.14	Guastavino, R. Ceramic Tile Factory and Showroom	660 Main St	Woburn	1907
WOB.468	Flagg, Charles House	662 Main St	Woburn	c 1870
WOB.469	Wyman, Charles Austin House	663 Main St	Woburn	c 1850
WOB.470	Stone, Clinton C. House	664 Main St	Woburn	c 1870
WOB.471		668 Main St	Woburn	c 1880
WOB.472	Wyman, Charles Austin House	670 Main St	Woburn	c 1870
WOB.121	Wyman Grammar School	677 Main St	Woburn	1891
WOB.473	Parker, Josiah House	706 Main St	Woburn	c 1847
WOB.474	Adlington, William - Graham, James R. House	707 Main St	Woburn	c 1840
WOB.475	Tenney, Patrick H. House	750 Main St	Woburn	c 1906
WOB.476	Johnson, Robert - Leen, Henry M. House	751 Main St	Woburn	1922
WOB.12	1790 House	827 Main St	Woburn	c 1790
WOB.44		848 Main St	Woburn	c 1830
WOB.122	Saint Anthony Roman Catholic Church	859 Main St	Woburn	1927
WOB.213	Saint Anthony Roman Catholic Church Garage	859 Main St	Woburn	1927
WOB.942	Virgin Mary Immaculate Conception Statue	859 Main St	Woburn	
WOB.943	Saint Anthony Statue	859 Main St	Woburn	
WOB.944	Knights of Columbus Memorial to the Unborn	859 Main St	Woburn	1995
WOB.123	North Congregational Church	896 Main St	Woburn	1882
WOB.21	Main Street Diner	901 Main St	Woburn	1952
WOB.45	Winn, Col. Moses F. House	903 Main St	Woburn	c 1830
WOB.249		985 Main St	Woburn	c 1970

Inv. No.	Property Name	Street	Town	Year
WOB.247		1011 Main St	Woburn	c 1970
WOB.246		1021 Main St	Woburn	c 1930
WOB.245		1023 Main St	Woburn	c 1920
WOB.243		1037 Main St	Woburn	c 1885
WOB.239		1071R Main St	Woburn	c 1959
WOB.237		1075 Main St	Woburn	c 1963
WOB.236		1077 Main St	Woburn	c 1910
WOB.235		1081 Main St	Woburn	1890
WOB.234		1082 Main St	Woburn	c 1921
WOB.575	Tay, William Jr. - Wood, Robert House	1083 Main St	Woburn	r 1780
WOB.233		1098 Main St	Woburn	c 1985
WOB.232		1100 Main St	Woburn	c 1956
WOB.241		2 Massachusetts Ave	Woburn	c 1900
WOB.242		7 Massachusetts Ave	Woburn	c 1950
WOB.257		2 Merrimac St	Woburn	c 2003
WOB.258		10 Merrimac St	Woburn	c 1967
WOB.945	Middlesex Canal	Middlesex Canal	Woburn	c 1802
WOB.274		2 Middlesex St	Woburn	c 1997
WOB.22	Middlesex Canal Tollkeeper's House	5 Middlesex St	Woburn	c 1802
WOB.909	Mishawum Road Bridge over Route 128	Mishawum Rd	Woburn	1961
WOB.124	Burdett, Charles A. House	7 Mishawum Rd	Woburn	c 1880
WOB.125	Fox, Everett P. House	8 Mishawum Rd	Woburn	c 1895
WOB.126	Richardson, Frank B. House	9 Mishawum Rd	Woburn	c 1895
WOB.127	Beggs, Daniel R. House	11 Mishawum Rd	Woburn	c 1899
WOB.128	Beggs, Thomas G. Jr. House	12 Mishawum Rd	Woburn	c 1920
WOB.129	Blodgett, William E. House	14 Mishawum Rd	Woburn	c 1895
WOB.214	Varney, Lloyd Garage	14 Mishawum Rd	Woburn	c 1965
WOB.130	Fox, John William - Glaser, Charles House	15 Mishawum Rd	Woburn	c 1889
WOB.477	Hovey, Eveline House	17 Mishawum Rd	Woburn	1886
WOB.478	Blodgett, Malcolm House	18 Mishawum Rd	Woburn	1922
WOB.479	Waughn, George W. House	19 Mishawum Rd	Woburn	c 1885
WOB.480	Chute, William Prior Jr. - Johnson, Dexter House	20 Mishawum Rd	Woburn	1917
WOB.481	Dean, Joseph - Bancroft, Hartwell House	21 Mishawum Rd	Woburn	c 1800
WOB.482	Bancroft, Charles H. Double House	23-25 Mishawum Rd	Woburn	c 1890
WOB.483	Tuttle, Samuel L. - Sweetser, Charles A. House	24 Mishawum Rd	Woburn	1870
WOB.484	Mundy, John House	26 Mishawum Rd	Woburn	c 1850
WOB.485	Brooks, Andrew Bigelow House	30 Mishawum Rd	Woburn	c 1850
WOB.486	Vacant Lot	31 Mishawum Rd	Woburn	c 1910

Inv. No.	Property Name	Street	Town	Year
WOB.487	Eames, Henry House	35 Mishawum Rd	Woburn	c 1906
WOB.488	Parker, Robert W. Double House	37-39 Mishawum Rd	Woburn	c 1880
WOB.489	Eames, Henry Martin House	38 Mishawum Rd	Woburn	c 1860
WOB.490	Sleeper, Moses W. - Blye, Harrie House	66 Mishawum Rd	Woburn	c 1880
WOB.900	Montvale Avenue Bridge over B & M Railroad	Montvale Ave	Woburn	1917
WOB.131	Woburn Company G 5th Regiment Armory	29 Montvale Ave	Woburn	1891
WOB.132	Woburn Swedish Evangelical Lutheran Church	29A Montvale Ave	Woburn	1898
WOB.133	Bean, Gilman A. House	47 Montvale Ave	Woburn	1874
WOB.134	Gage, Gawin Riddle House	51 Montvale Ave	Woburn	c 1870
WOB.491	Leighton, F. M. - Johnson, Charles House	65 Montvale Ave	Woburn	c 1870
WOB.135	Skinner, James House	79 Montvale Ave	Woburn	1875
WOB.576	Stabile, Pasquale - Donahue, Mary House	81 Montvale Ave	Woburn	c 1930
WOB.577	Bezatti, Edward House	83 Montvale Ave	Woburn	c 1930
WOB.578	Begley, John House	85 Montvale Ave	Woburn	c 1930
WOB.579	Spencer, Julia - McDonough, Harold House	87 Montvale Ave	Woburn	c 1929
WOB.492	Fowle, J. House	91-93 Montvale Ave	Woburn	c 1850
WOB.580	Hastings, Oliver - Hill, Jotham House	97 Montvale Ave	Woburn	r 1820
WOB.581	Swallow, Rev. J. E. - Taylor, Edward E. House	99 Montvale Ave	Woburn	c 1860
WOB.582	Hall, Capt. George W. M. House	101 Montvale Ave	Woburn	c 1860
WOB.583	Converse, John - Floyd, William House	110 Montvale Ave	Woburn	c 1800
WOB.584	Trull, Dr. Samuel - Yates, James House	111 Montvale Ave	Woburn	c 1856
WOB.585	Maquire, John G. House	113 Montvale Ave	Woburn	c 1887
WOB.136	Pollard, F. - True, John S. House	120 Montvale Ave	Woburn	1871
WOB.586	Moore, Charles - Ford, Howard M. House	129 Montvale Ave	Woburn	c 1850
WOB.587	Barber, Joseph F. - Linnell, Joseph House	133 Montvale Ave	Woburn	c 1870
WOB.588	Stevens, Frank - Brown, Charles A. House	135 Montvale Ave	Woburn	c 1860
WOB.697	Boutelle, Theodore House	138 Montvale Ave	Woburn	c 1890
WOB.698	Bishop, Harry S. - Elson, Alfred House	142 Montvale Ave	Woburn	c 1890
WOB.700	Waisnor, William Double House	144-146 Montvale Ave	Woburn	c 1890
WOB.701	Anderson, Peter House	147 Montvale Ave	Woburn	c 1900
WOB.702	Donovan, James P. House	160 Montvale Ave	Woburn	c 1890
WOB.703	Corry, Robert J. House	162 Montvale Ave	Woburn	c 1916
WOB.704	Johnson, John G. House	166 Montvale Ave	Woburn	c 1890
WOB.589	Tucker, Hannah - Prentice, Daniel House	192 Montvale Ave	Woburn	c 1850
WOB.705	Mahoney, Timothy House	197 Montvale Ave	Woburn	c 1860
WOB.706	Jones, Charles S. House	239 Montvale Ave	Woburn	1889
WOB.707	Pettingill, William House	251 Montvale Ave	Woburn	c 1850
WOB.708	McDonald, Patrick House	269 Montvale Ave	Woburn	1909

Inv. No.	Property Name	Street	Town	Year
WOB.709	Ramsdell, Henry - Cogan, Patrick Double House	284 Montvale Ave	Woburn	c 1860
WOB.590	Woburn Agricultural Manufacturing Boarding House	286 Montvale Ave	Woburn	1837
WOB.591	Woburn Agricultural Manufacturing Boarding House	288 Montvale Ave	Woburn	1837
WOB.592	Woburn Agricultural Manufacturing Boarding House	290 Montvale Ave	Woburn	1837
WOB.593	Woburn Agricultural Manufacturing Boarding House	292 Montvale Ave	Woburn	1837
WOB.699	Bishop, Harry S. - Elson, Alfred Barn	142 Montvale St	Woburn	c 1890
WOB.668	Whitcher, Jacob C. House	8 Mount Pleasant St	Woburn	c 1872
WOB.669	Stewart, Donald W. - Chester, Thomas House	10 Mount Pleasant St	Woburn	c 1875
WOB.670	Stewart, Donald W. Barn	10R Mount Pleasant St	Woburn	c 1875
WOB.671	Oxford, Charles - Bryant, Grace Marion House	47 Mount Pleasant St	Woburn	c 1860
WOB.672	Allen, George W. - Wyer, Capt. Edwin F. House	50 Mount Pleasant St	Woburn	c 1860
WOB.673	Conn, Charles Kyler House	53 Mount Pleasant St	Woburn	c 1865
WOB.137	Conn, George H. - Bickford, Dr. H. C. House	62 Mount Pleasant St	Woburn	1873
WOB.138	Saint Charles Roman Catholic Parish School	8 Myrtle St	Woburn	1921
WOB.288		1 North Warren St	Woburn	c 1920
WOB.594	Ellard - Larkin, John F. House	8 North Warren St	Woburn	r 1820
WOB.595	Murray, Patrick H. - Martin, Philip House	39 North Warren St	Woburn	c 1880
WOB.596	Burbank, Daniel Poultry House	34 Orange St	Woburn	r 1889
WOB.597	New Jerusalem Swedenborgian Chapel	36 Orange St	Woburn	1868
WOB.598	Montvale Congregational Church Parsonage	36 Orange St	Woburn	c 1945
WOB.493	Kenty, Frederick W. House	6 Page Pl	Woburn	c 1900
WOB.494	Sherburne, William Alexander House	8 Page Pl	Woburn	c 1890
WOB.495	Wallace, John M. House	10 Page Pl	Woburn	c 1890
WOB.496	Page, Catherine - Robinson, Albert H. House	11 Page Pl	Woburn	c 1870
WOB.497	Wallace, John M. - Crowell, Clarence M. House	12 Page Pl	Woburn	c 1890
WOB.498	Robinson, Carrie Page House	13 Page Pl	Woburn	c 1906
WOB.499	Burnes, Clara M. House	14 Page Pl	Woburn	c 1930
WOB.500	Robinson, Carrie Page Double House	15-17 Page Pl	Woburn	c 1890
WOB.800	Woburn First Burial Ground	Park St	Woburn	1642
WOB.917	Woburn First Burial Ground Perimeter Wall	Park St	Woburn	r 1850
WOB.918	Woburn First Burial Ground Chain Link Fence	Park St	Woburn	r 1980
WOB.919	Woburn First Burial Ground Path, Plaza & Flagpole	Park St	Woburn	r 1980
WOB.920	First Burial Ground - Convers, Ann Headstone	Park St	Woburn	c 1691
WOB.921	First Burial Ground - Thomson, Lt. James Headstone	Park St	Woburn	c 1693

Inv. No.	Property Name	Street	Town	Year
WOB.922	First Burial Ground - Wyman, Francis Headstone	Park St	Woburn	c 1699
WOB.923	First Burial Ground - Johnson, Sarah Headstone	Park St	Woburn	c 1710
WOB.924	First Burial Ground - Fyfeild, Abraham Headstone	Park St	Woburn	c 1711
WOB.925	First Burial Ground - Richardson, Samuel Headstone	Park St	Woburn	c 1712
WOB.926	First Burial Ground - Burbeen, John Headstone	Park St	Woburn	c 1713
WOB.927	First Burial Ground - Wyman, Benjamin Headstone	Park St	Woburn	c 1774
WOB.928	First Burial Ground - Thompson, Daniel Headstone	Park St	Woburn	c 1775
WOB.929	First Burial Ground - Gardner, Dorothy Headstone	Park St	Woburn	c 1787
WOB.930	First Burial Ground - Pool, Eleazar F. Headstone	Park St	Woburn	c 1776
WOB.931	First Burial Ground - Brook, Benjamin Headstone	Park St	Woburn	c 1769
WOB.932	First Burial Ground - Wyman, Abigail Headstone	Park St	Woburn	c 1772
WOB.933	First Burial Ground - Tyng, Judith Headstone	Park St	Woburn	c 1736
WOB.934	First Burial Ground - Baldwin Family Obelisk	Park St	Woburn	r 1820
WOB.935	First Burial Ground - Fowle, James Monument	Park St	Woburn	c 1856
WOB.936	First Burial Ground - Commemorative Plaques	Park St	Woburn	r 1980
WOB.28	Downing, Jonathan - Parkhurst, George House	48 Pearl St	Woburn	c 1860
WOB.29	Tuttle, Mary - White, Hugh House	52 Pearl St	Woburn	c 1870
WOB.139	Locke House	61 Pearl St	Woburn	c 1800
WOB.215	Locke Barn	61 Pearl St	Woburn	
WOB.30	Reed, Moses D. - Howard, J. P. House	66 Pearl St	Woburn	r 1835
WOB.31	Thayer, Howard - Duffy, Thomas E. Double House	68 Pearl St	Woburn	c 1910
WOB.32	Eaton, Edwin House	70 Pearl St	Woburn	c 1870
WOB.33	Green, Charles B. House	72 Pearl St	Woburn	r 1865
WOB.140	Page, John O. - Hall, Charles A. House	76 Pearl St	Woburn	c 1800
WOB.141	Poole, Rufus F. House	88 Pearl St	Woburn	c 1890
WOB.142	Tidd, Jonathan House	89 Pearl St	Woburn	c 1700
WOB.216	Watson, Abby Tidd Garage	89 Pearl St	Woburn	r 1920
WOB.143	Fridolin, Julius Double House	90 Pearl St	Woburn	c 1906
WOB.144	Andersen, M. Peter House	94 Pearl St	Woburn	1914
WOB.145	Pierce, Andrew House	108 Pearl St	Woburn	c 1840
WOB.146	Greenan, William Double House	121 Pearl St	Woburn	r 1900
WOB.147	Carter, Alfred G. House	125 Pearl St	Woburn	c 1870
WOB.599	Hermann, Alfred House	16 Pine St	Woburn	1914
WOB.600	Leech, Henry E. House	20 Pine St	Woburn	1923

Inv. No.	Property Name	Street	Town	Year
WOB.601	Wright, Thomas J. - Cornett, Frank House	40 Pine St	Woburn	c 1904
WOB.501	Kent, George House	100 Pine St	Woburn	c 1925
WOB.602	Place, Griffin - Cook, William House	7 Place Ln	Woburn	r 1780
WOB.148	Woburn Congregational Church	1 Pleasant St	Woburn	r 1850
WOB.149	Woburn Five Cents Savings Bank	19 Pleasant St	Woburn	1931
WOB.6	Woburn Public Library	45 Pleasant St	Woburn	c 1876
WOB.906	Count Rumford Statue	45 Pleasant St	Woburn	1899
WOB.150	Craigin, Francis K. Double House	57 Pleasant St	Woburn	c 1870
WOB.283		61 Pleasant St	Woburn	c 1900
WOB.284		69 Pleasant St	Woburn	c 1910
WOB.287		71 Pleasant St	Woburn	c 1950
WOB.151	Winn, Joseph House	73 Pleasant St	Woburn	c 1860
WOB.152	West - Chute, William Prior House	82 Pleasant St	Woburn	c 1880
WOB.217	West - Chute, William Carriage House	82 Pleasant St	Woburn	c 1880
WOB.153	Gifford, Seth T. House	83 Pleasant St	Woburn	c 1880
WOB.154	Pierce, Maj. Thomas Jefferson House	84 Pleasant St	Woburn	c 1870
WOB.155	Crosby, Rufus P. House	85 Pleasant St	Woburn	c 1870
WOB.603	Winn, Joseph B. House	96 Pleasant St	Woburn	c 1840
WOB.156	Winn, William H. House	103 Pleasant St	Woburn	c 1850
WOB.157	Leonard, Christopher Double House	105-107 Pleasant St	Woburn	c 1880
WOB.604	Trull, George - Bacon, Mary B. House	106 Pleasant St	Woburn	c 1840
WOB.605	Chickering, Rev. Joseph - Bacon, Oliver House	115 Pleasant St	Woburn	c 1810
WOB.158	Dow, Stephen - Ellis, George F. House	131 Pleasant St	Woburn	c 1840
WOB.606	Thompson, Abijah - Dow, Stephen House	132 Pleasant St	Woburn	c 1825
WOB.502	Lyons, Thomas F. House	136 Pleasant St	Woburn	1933
WOB.159	Doyle, John B. House	137 Pleasant St	Woburn	c 1850
WOB.503	Finn, George House	138 Pleasant St	Woburn	1933
WOB.504	Simonds, Marshall House	143 Pleasant St	Woburn	c 1890
WOB.505	Thompson, Benjamin Franklin - Frost, Walter House	146 Pleasant St	Woburn	c 1820
WOB.506	Symmes, Zachariah - Doherty, John N. House	147 Pleasant St	Woburn	c 1815
WOB.160	Clark, George F. House	149 Pleasant St	Woburn	1846
WOB.507	Johnson, Joseph House	151 Pleasant St	Woburn	1846
WOB.508	Buss, Dr. Charles H. House	15 Plympton St	Woburn	1913
WOB.674	Hudson, Edward W. - Keany, Terrence House	34 Porter St	Woburn	r 1860
WOB.675	Whitcher, Jacob C. - Began, Timothy House	42 Prospect St	Woburn	r 1873
WOB.161	Cole, John G. - Giles, Royal House	62 Prospect St	Woburn	c 1856
WOB.162	Ferullo, Luigi House	7 Richmond Ave	Woburn	c 1900

Inv. No.	Property Name	Street	Town	Year
WOB.218	Ferullo Garage	7 Richmond Ave	Woburn	c 1980
WOB.908	Route 128 Bridge over Route 38 (Westbound)	Rt 128	Woburn	1949
WOB.910	Route 128 Bridge over Boston and Maine Railroad	Rt 128	Woburn	1950
WOB.911	Route 128 Bridge over Route 38 (Eastbound)	Rt 128	Woburn	1949
WOB.912	Route 128 Bridge over Aberjona River	Rt 128	Woburn	1949
WOB.916	Walnut Hill Bridge	Salem St	Woburn	1928
WOB.163	Converse, Parker Lindall House	10 Salem St	Woburn	c 1870
WOB.219	Converse, Parker Lindall Outbuilding	10 Salem St	Woburn	c 1870
WOB.164	Perry, Florence Clemson House	178 Salem St	Woburn	c 1920
WOB.165	Heald, Walter House	184 Salem St	Woburn	c 1916
WOB.166	Maplewood Farm	372 Salem St	Woburn	c 1910
WOB.220	Hayward, Martin Barn	372 Salem St	Woburn	c 1850
WOB.221	Schneider Dairy Farm Milkhouse	372 Salem St	Woburn	c 1910
WOB.222	Maplewood Farm Blacksmith Shop	372 Salem St	Woburn	
WOB.710	McFeeley, James House	36 School St	Woburn	c 1871
WOB.711	Ames, Henry Lyman House	170 School St	Woburn	r 1830
WOB.607	Thompson, Lewis Waldo - McMahon, Frank House	10 Scott St	Woburn	c 1885
WOB.608	Thompson, Lewis Waldo - Rooney, Henry J. House	12 Scott St	Woburn	c 1900
WOB.609	Thompson, Lewis Waldo - Clemson, Frederick House	14 Scott St	Woburn	c 1900
WOB.610	Thompson, Lewis Waldo - Carr, Alice House	16 Scott St	Woburn	c 1900
WOB.611	Deland, Joseph Foster House	19-21 Scott St	Woburn	c 1874
WOB.612	Wyman, Nathan House	22 Scott St	Woburn	c 1865
WOB.613	MacDonald, John House	31 Scott St	Woburn	c 1919
WOB.676	Barker, George G. - Campbell, Donald House	14 South St	Woburn	c 1895
WOB.167	DeLong, James F. Three Decker	11 Sturgis St	Woburn	r 1915
WOB.712	Wyman, William P. House	14 Sturgis St	Woburn	c 1850
WOB.713	Hudson, Edward W. House	30 Sturgis St	Woburn	c 1875
WOB.169	Ray, George House	3 Tidd Ave	Woburn	c 1890
WOB.37	Pierce, Charles A. Carriage House	4 Tidd Ave	Woburn	c 1900
WOB.170	Torry, Richard - Veno, George House	5 Tidd Ave	Woburn	c 1890
WOB.171	Bond, Daniel Wilbur House	6 Tidd Ave	Woburn	c 1902
WOB.172	Healey, Francis C. House	1 Traverse St	Woburn	c 1900
WOB.223	Healey, Francis C. Garage	1 Traverse St	Woburn	
WOB.173	Cutler, Warren - Thompson, Jonathan House	7 Traverse St	Woburn	c 1860
WOB.174	Tidd, Marshall - Flint, Frederick House	19 Traverse St	Woburn	c 1870

Inv. No.	Property Name	Street	Town	Year
WOB.224	Bond, Lewis F. Garage	19 Traverse St	Woburn	c 1926
WOB.175	Hartshorn, S. A. House	60 Union St	Woburn	c 1880
WOB.509	Murphy, James H. House	6 Valley Rd	Woburn	1925
WOB.285		1 Wade Pl	Woburn	c 1920
WOB.286		1 Wade Pl	Woburn	c 1910
WOB.282		7 Wade Pl	Woburn	c 1920
WOB.714	Menchin, Frank House	96 Waltham St	Woburn	1894
WOB.176	Foucar, Mary M. House	4 Ward St	Woburn	c 1906
WOB.225	Foucar, Mary M. Garage	4 Ward St	Woburn	
WOB.177	Merrill, William R. House	6 Ward St	Woburn	c 1870
WOB.226		6 Ward St	Woburn	
WOB.178	Carlberg, Carl House	9 Ward St	Woburn	c 1906
WOB.38	Tidd, Marshall House	11 Ward St	Woburn	r 1820
WOB.179	Tidd, Arthur W. House	15 Ward St	Woburn	c 1910
WOB.180	Edgecomb, Noah House	18 Ward St	Woburn	c 1848
WOB.181	Tidd, Jonathan House	23 Ward St	Woburn	c 1870
WOB.182	Bond, Charles House	30 Ward St	Woburn	c 1870
WOB.227	Colvin, John Garage	30 Ward St	Woburn	1918
WOB.289	Thompson, Jonathan - Tidd, Marshall House	1 Warren Ave	Woburn	c 1835
WOB.183	Grammer, Col. William T. House	14 Warren Ave	Woburn	c 1875
WOB.18	Hayden, Edward D. House	17 Warren Ave	Woburn	c 1892
WOB.184	Munroe, John I. House	26 Warren Ave	Woburn	1894
WOB.185	Dow, Alfred A. House	31 Warren Ave	Woburn	c 1870
WOB.186	Fagg, Stephen D. House	35 Warren Ave	Woburn	c 1910
WOB.228	Fagg, Stephen D. Garage	35 Warren Ave	Woburn	c 1910
WOB.187	Nichols, Benjamin Harrison House	37 Warren Ave	Woburn	c 1890
WOB.188	Duncan, Robert - Barker, E. Gerry House	39 Warren Ave	Woburn	c 1890
WOB.189	Munroe, George J. House	43 Warren Ave	Woburn	c 1870
WOB.229	Munroe, George J. Garage	43 Warren Ave	Woburn	c 1870
WOB.190	Crane, Capt. John P. House	48 Warren Ave	Woburn	c 1875
WOB.614	Wyman, Amasa - Allen, George W. House	150 Washington Cir	Woburn	r 1780
WOB.615	Hadley - Allen, George W. House	152 Washington Cir	Woburn	c 1800
WOB.628	Anshei Poland Cemetery Chapel	Washington St	Woburn	1922
WOB.629	Congregation Ohel Jacob Cemetery Chapel	Washington St	Woburn	
WOB.630	Chevra Kadusha of Boston Cemetery Chapel	Washington St	Woburn	c 1903
WOB.631	Pride of Boston Cemetery Chapel	Washington St	Woburn	c 1980
WOB.632	Shari Jerusalem Chevra Thilim Cemetery Chapel	Washington St	Woburn	
WOB.633	Anshe Libavitz Cemetery Chapel	Washington St	Woburn	

Inv. No.	Property Name	Street	Town	Year
WOB.634	Knights of Liberty Cemetery Chapel	Washington St	Woburn	1941
WOB.801	Anshei Poland Cemetery	Washington St	Woburn	c 1900
WOB.802	Beth Joseph #1 Cemetery	Washington St	Woburn	c 1908
WOB.803	Meretz Cemetery	Washington St	Woburn	1893
WOB.804	Beth David Cemetery	Washington St	Woburn	c 1906
WOB.805	Beth David #2 Cemetery	Washington St	Woburn	c 1906
WOB.806	Montefiore Cemetery	Washington St	Woburn	c 1906
WOB.807	Chebra Kadisha of Chelsea Cemetery	Washington St	Woburn	c 1899
WOB.808	Congregation Ohel Jacob and East Boston Cemetery	Washington St	Woburn	c 1906
WOB.809	South Boston Lodge Cemetery	Washington St	Woburn	c 1906
WOB.810	Roxbury Mutual Cemetery	Washington St	Woburn	c 1898
WOB.811	Kenesseth Israel Cemetery	Washington St	Woburn	c 1899
WOB.812	Chevra Kadusha of Boston Cemetery	Washington St	Woburn	c 1903
WOB.813	United Congregation Beth Jacob Cemetery	Washington St	Woburn	c 1902
WOB.814	Puritan - Mount Sinai Cemetery	Washington St	Woburn	c 1906
WOB.815	Pride of Boston Cemetery A	Washington St	Woburn	c 1897
WOB.816	Pride of Boston Cemetery B	Washington St	Woburn	c 1897
WOB.817	Pride of Boston Cemetery C	Washington St	Woburn	c 1897
WOB.818	Pride of Boston Cemetery D	Washington St	Woburn	c 1897
WOB.819	Agudath Achim Cemetery	Washington St	Woburn	c 1906
WOB.820	Shari Jerusalem Chevra Thilim Cemetery	Washington St	Woburn	c 1906
WOB.821	Anshe Libavitz Cemetery	Washington St	Woburn	c 1899
WOB.822	Woburn Hebrew Center Cemetery	Washington St	Woburn	c 1945
WOB.823	Beth Joseph #3 Cemetery	Washington St	Woburn	c 1906
WOB.824	Knights of Liberty Cemetery	Washington St	Woburn	c 1903
WOB.825	Independent Pride of Boston Cemetery	Washington St	Woburn	c 1900
WOB.826	Independent Golden Crown Cemetery	Washington St	Woburn	c 1906
WOB.827	American Austrian - City of Boston Lodge Cemetery	Washington St	Woburn	c 1906
WOB.828	Chevra Mishnias Cemetery	Washington St	Woburn	c 1906
WOB.946	Anshei Poland Cemetery Gate and Fence	Washington St	Woburn	
WOB.947	Meretz Cemetery Gate and Fence	Washington St	Woburn	c 1914
WOB.948	Beth David #2 Cemetery Gate and Fence	Washington St	Woburn	
WOB.949	Beth Joseph Cemetery #2 - Wolkon, Rose Tablet	Washington St	Woburn	c 1974
WOB.950	Montefiore Cemetery Gate - Fence - Tablets	Washington St	Woburn	1924
WOB.951	Chebra Kadisha of Chelsea Cemetery Gate	Washington St	Woburn	
WOB.952	Chebra Kadisha of Chelsea Cemetery Fence	Washington St	Woburn	

Inv. No.	Property Name	Street	Town	Year
WOB.953	Congregation Ohel Jacob Cemetery Gate and Fence	Washington St	Woburn	
WOB.954	South Boston Lodge Cemetery Gate and Fence	Washington St	Woburn	
WOB.955	Roxbury Mutual Cemetery Gate and Fence	Washington St	Woburn	1930
WOB.956	Kenesseth Israel Cemetery Gate and Fence	Washington St	Woburn	
WOB.957	Kenesseth Israel Cemetery Tablets	Washington St	Woburn	1899
WOB.958	Kenesseth Israel Cemetery Tablet	Washington St	Woburn	1899
WOB.959	Kenesseth Israel Cemetery Tablet	Washington St	Woburn	1899
WOB.960	Chevra Kadusha of Boston Cemetery Gate and Fence	Washington St	Woburn	1925
WOB.961	United Congregation Beth Jacob Cemetery Gate	Washington St	Woburn	c 1970
WOB.962	Puritan - Mount Sinai Cemetery Gate and Fence	Washington St	Woburn	
WOB.963	Pride of Boston Cemetery Gate and Wall	Washington St	Woburn	c 1930
WOB.964	Pride of Boston Cemetery Gate and Fence	Washington St	Woburn	
WOB.965	Agudath Achim Cemetery Gate and Fence	Washington St	Woburn	
WOB.966	Shari Jerusalem Chevra Thilim Cemetery Gate	Washington St	Woburn	
WOB.967	Anshe Libavitz Cemetery Gate	Washington St	Woburn	
WOB.968	Anshe Libavitz Cemetery Fence	Washington St	Woburn	
WOB.969	Woburn Hebrew Center Cemetery Gate and Plaque	Washington St	Woburn	1945
WOB.970	Beth Joseph #3 Cemetery Gates	Washington St	Woburn	
WOB.971	Beth Joseph #3 Cemetery Marker	Washington St	Woburn	
WOB.972	Knights of Liberty Cemetery Fence	Washington St	Woburn	
WOB.973	Independent Pride of Boston Cemetery Tablet	Washington St	Woburn	1900
WOB.974	Independent Pride of Boston Cemetery Tablet	Washington St	Woburn	1931
WOB.975	Independent Golden Crown Cemetery Gate	Washington St	Woburn	
WOB.976	American Austrian Cemetery Gate	Washington St	Woburn	1922
WOB.977	City of Boston Lodge Cemetery Gate and Fence	Washington St	Woburn	
WOB.978	Chevra Mishnias Cemetery Gate and Fence	Washington St	Woburn	
WOB.616	Hayward, Nathaniel - Macfarlane, Duncan House	72 Washington St	Woburn	c 1840
WOB.25	Saint Joseph's Roman Catholic Church	100 Washington St	Woburn	1877
WOB.937	Immaculate Conception Statue	100 Washington St	Woburn	1926
WOB.938	Saint Jude Statue	100 Washington St	Woburn	
WOB.939	Gillis, Shawn - Carroll, Paul Monument	100 Washington St	Woburn	
WOB.617	Knights, John II - Nelson, James House	10 Water St	Woburn	c 1840
WOB.618	Eaton, Timothy - Devlin, John House	12 Water St	Woburn	r 1840
WOB.256		10 West Dexter Ave	Woburn	c 1983
WOB.191	Thompson, Samuel A. House	7 West St	Woburn	c 1885
WOB.192	Lyng, Arthur House	11 West St	Woburn	c 1932

Inv. No.	Property Name	Street	Town	Year
WOB.193	Flaws, James House	16 West St	Woburn	c 1930
WOB.194	Bell, James D. - Rollins, Elijah Jr. House	25 West St	Woburn	c 1860
WOB.195	Fowle, James House	26 West St	Woburn	c 1920
WOB.196	Sevrens, Urial House	30 West St	Woburn	c 1895
WOB.244		2 Wheeling St	Woburn	c 1940
WOB.510	Cummings, Lottie - Wilcox, Walter L. House	6 Wilcox Cir	Woburn	1898
WOB.511	Cummings, M. - Newman, John Hawkins House	74 Willow St	Woburn	c 1870
WOB.512	Taylor, Sewell 2nd House	75 Willow St	Woburn	1864
WOB.513	Colgate, William A. - Aylward, Michael J. House	78 Willow St	Woburn	1851
WOB.620	Winn and Lane Row House	Winn Pk	Woburn	c 1880
WOB.619	Winn and Lane Row House	2-12 Winn Pk	Woburn	c 1880
WOB.197	Woburn First Baptist Church	3 Winn St	Woburn	1926
WOB.621	Woburn First Baptist Church Parsonage	7 Winn St	Woburn	c 1895
WOB.35	Tillson, David H. House	56 Winn St	Woburn	c 1850
WOB.275		100 Winn St	Woburn	c 1964
WOB.622	Henchey, James H. House	122 Winn St	Woburn	c 1880
WOB.623	Ryan, John J. House	126 Winn St	Woburn	1913
WOB.624	Barnes, James - O'Hare, Fannie Double House	127-129 Winn St	Woburn	c 1890
WOB.625	Boviard, James - Palage, Harry House	131 Winn St	Woburn	c 1929
WOB.198	Caulfield, Dr. Peter House	160 Winn St	Woburn	1908
WOB.514	Richardson, S. S. House	2 Wyman St	Woburn	c 1840
WOB.626	Wheaton, Frank E. House	7 Wyman St	Woburn	c 1924
WOB.627	Chute, Susan - Cummings, Joanna House	21 Wyman St	Woburn	c 1925

Appendix F

Reference Documents

Pollutant Impacts on Water Quality

Sediment	Sediment is a common component of stormwater, and can be a pollutant. Sediment can be detrimental to aquatic life (primary producers, benthic invertebrates, and fish) by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange in water bodies. Sediment can transport other pollutants that are attached to it including nutrients, trace metals, and hydrocarbons. Sediment is the primary component of total suspended solids (TSS), a common water quality analytical parameter.
Nutrients	Nutrients including nitrogen and phosphorous are the major plant nutrients used for fertilizing landscapes, and are often found in stormwater. These nutrients can result in excessive or accelerated growth of vegetation, such as algae, resulting in impaired use of water in lakes and other sources of water supply. For example, nutrients have led to a loss of water clarity in Lake Tahoe. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.
Bacteria and Viruses	Bacteria and viruses are common contaminants of stormwater. For separate storm drain systems, sources of these contaminants include animal excrement and sanitary sewer overflow. High levels of indicator bacteria in stormwater have led to the closure of beaches, lakes, and rivers to contact recreation such as swimming.
Oil and Grease	Oil and grease includes a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. Sources of oil and grease include leakage, spills, cleaning and sloughing associated with vehicle and equipment engines and suspensions, leaking and breaks in hydraulic systems, restaurants, and waste oil disposal.
Metals	Metals including lead, zinc, cadmium, copper, chromium, and nickel are commonly found in stormwater. Many of the artificial surfaces of the urban environment (e.g., galvanized metal, paint, automobiles, or preserved wood) contain metals, which enter stormwater as the surfaces corrode, flake, dissolve, decay, or leach. Over half the trace metal load carried in stormwater is associated with sediments. Metals are of concern because they are toxic to aquatic organisms, can bioaccumulate (accumulate to toxic levels in aquatic animals such as fish), and have the potential to contaminate drinking water supplies.
Organics	Organics may be found in stormwater at low concentrations. Often synthetic organic compounds (adhesives, cleaners, sealants, solvents, etc.) are widely applied and may be improperly stored and disposed. In addition, deliberate dumping of these chemicals into storm drains and inlets causes environmental harm to waterways.
Pesticides	Pesticides (including herbicides, fungicides, rodenticides, and insecticides) have been repeatedly detected in stormwater at toxic levels, even when pesticides have been applied in accordance with label instructions. As pesticide use has increased, so too have concerns about the adverse effects of pesticides on the environment and human health. Accumulation of these compounds in simple aquatic organisms, such as plankton, provides an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in organisms that feed on them, such as fish and birds.
Gross Pollutants	Gross Pollutants (trash, debris and floatables) may include heavy metals, pesticides, and bacteria in stormwater. Typically resulting from an urban environment, industrial sites and construction sites, trash and floatables may create an aesthetic "eye sore" in waterways. Gross pollutants also include plant debris (such as leaves and lawn-clippings from landscape maintenance), animal excrement, street litter, and other organic matter. Such substances may harbor bacteria, viruses, vectors, and depress the dissolved oxygen levels in streams, lakes and estuaries sometimes causing fish kills.
Vector Production	Vector production (e.g., mosquitoes, flies, and rodents) is frequently associated with sheltered habitats and standing water. Unless designed and maintained properly, standing water may occur in treatment control BMP's for 72 hours or more, thus providing a source for vector habitat and reproduction (Metzger, 2002).

Source: California Stormwater Quality Association, Stormwater BMP Handbook, 2003.

Potential pollutants likely associated with specific *municipal facilities*

Municipality Facility Activity	Potential Pollutants								
	Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Pesticides	Oxygen Demanding Substances
Building and Grounds Maintenance and Repair	X	X	X	X	X	X	X	X	X
Parking/Storage Area Maintenance	X	X	X	X	X	X	X		X
Waste Handling and Disposal	X	X	X	X	X	X	X	X	X
Vehicle and Equipment Fueling			X	X		X	X		
Vehicle and Equipment Maintenance and Repair				X		X	X		
Vehicle and Equipment Washing and Steam Cleaning	X	X	X	X		X	X		
Outdoor Loading and Unloading of Materials	X	X	X	X		X	X	X	X
Outdoor Container Storage of Liquids		X		X		X	X	X	X
Outdoor Storage of Raw Materials	X	X	X			X	X	X	X
Outdoor Process Equipment	X		X	X		X	X		
Overwater Activities			X	X	X	X	X	X	X
Landscape Maintenance	X	X	X		X			X	X

Source: California Stormwater BMP Handbook (<http://www.cabmphandbooks.com/>)(slightly modified)

Potential pollutants likely associated with *municipal activities*

Municipal Program	Activities	Potential Pollutants								
		Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Pesticides	Oxygen Demanding Substances
Roads, Streets, and Highways Operation and Maintenance	Sweeping and Cleaning	X		X	X		X			X
	Street Repair, Maintenance, and Striping/Painting	X		X	X		X	X		
	Bridge and Structure Maintenance	X		X	X		X	X		
Plaza, Sidewalk, and Parking Lot Maintenance and Cleaning	Surface Cleaning	X	X			X	X			X
	Graffiti Cleaning	X	X		X			X		
	Sidewalk Repair	X		X						
	Controlling Litter	X		X		X	X			X
Fountains, Pools, Lakes, and Lagoons Maintenance	Fountain and Pool Draining		X					X		
	Lake and Lagoon Maintenance	X	X	X		X			X	X
Landscape Maintenance	Mowing/Trimming/Planting	X	X	X		X			X	X
	Fertilizer & Pesticide Management	X	X						X	
	Managing Landscape Wastes			X					X	X
	Erosion Control	X	X							
Drainage System Operation and Maintenance	Inspection and Cleaning of Stormwater Conveyance Structures	X	X	X		X		X		X
	Controlling Illicit Connections and Discharges	X	X	X	X	X	X	X	X	X
	Controlling Illegal Dumping	X	X	X	X	X	X	X	X	X
	Maintenance of Inlet and Outlet Structures	X		X	X		X			X
Waste Handling and Disposal	Solid Waste Collection		X	X	X	X	X	X		X
	Waste Reduction and Recycling			X	X					X
	Household Hazardous Waste Collection			X	X		X	X	X	
	Controlling Litter			X	X	X		X		X
	Controlling Illegal Dumping	X		X		X	X		X	X
Water and Sewer Utility Operation and Maintenance	Water Line Maintenance	X				X	X			
	Sanitary Sewer Maintenance	X				X	X			X
	Spill/Leak/Overflow Control, Response, and Containment	X	X			X		X		X

Source: California Stormwater BMP Handbook (<http://www.cabmphandbooks.com/>)

IDDE Implementation Timeline

Effective Date

Date

1 yr

2 yr

3 yr

4 yr

5 yr

6 yr

7 yr

8 yr

9 yr

10 yr

Annual Report

Phase I map due

Phase II map due

Mapping

Update map w/ outfalls, receiving waters, certain other structures

Update mapping information, including catchment delineations, outfalls, and infrastructure locations (pipes, manholes, catch basins) based on information collected during catchment investigations

Initial Outfall Ranking due

Updated Outfall Ranking due

Dry Weather outfall screening and sampling

Wet weather screening of outfalls and interconnections will be performed as necessary during catchment investigations

Written catchment investigation procedure due

100% problems and catchments with sewage evidence investigated

100% catchments investigated

Perform **catchment investigations** for Problem Outfalls and outfalls/interconnections where dry weather testing indicates sewer input

Perform catchment investigations for remaining outfalls

Written IDDE program, SSO inventory due

Ordinance must be in place for new permittees

Written programs

Outfall Screening

Catchment Work

Appendix G

Sanitary Sewer Overflow Inventory

Draft SSO Inventory for the City of Woburn, MA (January 1, 2014 – September 30, 2019)

Summary table:

Date	Time	Location	Discharge to surface water or MS4	Estimated SSO Volume	Cause of SSO	Mitigation/Corrective Measures Completed
12/09/2014	06:45pm – 09:30pm	Sturgis Street	Horn Pond	16,500 gallons	Rain Event, Insufficient Capacity in the System	Area bermed and constrained by DPW to prevent discharge to Pond.
01/08/2017	01:20pm – 02:20pm	SMH HP-19; behind 58 Sturgis Street	Horn Pond	375 gallons	Due to contractor operations	Contractor corrected problems with their pumps.

Detailed descriptions:

- No SSOs occurred in 2019
- No SSOs occurred in 2018
- On **January 8, 2017** at approximately 01:20 PM, the Sewer Department was notified of sewage coming out of a manhole in the walking path behind 58 Sturgis Street. A contractor was working on the Horn Pond lining project downstream of the manhole. At the time of discharge, the contractor had the line plugged and temporary bypass in place. However, the contractor had problems with the bypass pumps which resulted in the discharge. A backup also occurred into the property basement at 51 Sturgis Street. The total volume of wastewater discharged to the area surrounding Horn Pond was 375 gallons.
- No SSOs occurred in 2016
- No SSOs occurred in 2015
- On **December 9, 2014** at approximately 06:45 PM, the Sewer Department was notified of sewage coming out of a manhole on Sturgis Street. After responding and investigating, it was determined there was insufficient capacity in the system to convey flow during the rain storm at that time. Department of Public Works staff bermed the area and maintained the constraint to prevent discharge to the Pond. The total volume of wastewater discharged to the area of Horn Pond was approximately 16,500 gallons. The reason for the SSO was a rainstorm which cumulated 4.21 inches of rain during the duration of the storm. This surcharged the system and caused the SSO event.

Appendix H

Annual Reports & Record Keeping

Annual Evaluation

Year 1 Annual Report

Document Name and/or Web Address:

Year 2 Annual Report

Document Name and/or Web Address:

Year 3 Annual Report

Document Name and/or Web Address:

Year 4 Annual Report

Document Name and/or Web Address:

Year 5 Annual Report

Document Name and/or Web Address:

50 North Warren St.
Woburn, MA 01801

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Superintendent



Tel (781) 897-5980
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Leonard J. Burnham
Deputy Superintendent

CITY OF WOBURN
MASSACHUSETTS
Department of Public Works
Road Deicing Policy

The City of Woburn Department of Public Works stores all road salt inside an 8000 square foot covered shed that is set atop a base of non-permeable bit-con. All salt shall be stored inside and any runoff shall be contained inside the facility. Equipment returning with unused material shall unload inside the shed. DPW applies salt to main roads, hills, and intersections only. DPW does not use salt in environmentally friendly areas. Application is done using the Salt Institute "Best Management Practices" for amount per road mile and application. The material is applied with spreaders that are calibrated annually. DPW crews may pretreat main roadways, hills and intersections with salt brine before storms begin depending on forecasts. The City of Woburn Public Works Department strive to keep roadways safe for its residents and protect the environment from overuse of deicing chemicals. This is achieved through education, training, maintenance of equipment and a common goal by all involved in winter road maintenance.

Woburn Catch Basin Cleaning Optimization Plan Schedule

To: Woburn Stormwater Management Program Files

DATE: September 30, 2019

Section 2.3.7.a.iii.2 of the 2016 Small MS4 General Permit requires that Woburn optimize routine inspections, cleaning, and maintenance of catch basins to meet the following criteria:

- Prioritize inspection and maintenance for catch basins located near construction activities and clean catch basins more frequently if excessive sediment or debris loadings is found.
- Establish a catch basin cleaning schedule that ensures no catch basin is ever more than 50 percent full.

The City completes ongoing catch basin inspection and cleaning using a clam shell truck. The City is utilizing PeopleForms for tracking, which includes:

- Unique inspection ID
- Location ID
- Time of cleaning
- Method (always clam shell to date)
- Initial depth
- Final depth
- Invert depth
- Sediment depth
- Sump depth
- Percent filled

The City plans to use the metrics recorded from catch basin cleaning to optimize routine inspections, cleaning, and maintenance of catch basins.

In addition, the City anticipates that written catch basin inspection and cleaning best practices will be included in the written operations and maintenance will be developed during Permit Year 2.

City of Woburn
MS4 Outfall Inspections
October 8, 2019 - August 28, 2019

f+A:ASacilityid	insp_id	category	insp_date	insp_by	insp_other	inspector	comments	flow_desc	submerged	ht_abv_out
OF-96	DISIN-252	Dry	2019-08-28	City		PL NB AR	Flow	Moderate	No	
OF-131	DISIN-253	Dry	2019-08-28	City		PL NB AR	No flow no sign of illicit discharge	Dry	No	
OF-130	DISIN-254	Dry	2019-08-28	City		PL NB AR	No flow no sign of illicit discharge	Dry	No	
OF-696	DISIN-240	Dry	2019-08-27	City		PL NB AR	No flow no sign of illicit discharge	Dry	Yes	Can't tell
OF-511	DISIN-241	Dry	2019-08-27	City		Nb pl ar	No flow no sign of illicit discharge	Dry	No	
OF-512	DISIN-242	Dry	2019-08-27	City		Nb pl ar	No flow no sign of illicit discharge	Dry	No	
OF-234	DISIN-243		2019-08-27	City		Nb pl ar		Dry	No	
OF-235	DISIN-244	Dry	2019-08-27	City		Nb pl ar	No flow no sign of illicit discharge	Dry	No	
OF-515	DISIN-245	Dry	2019-08-27	City		PL NB AR	No flow. No sign of illicit discharge	Dry	No	
OF-742	DISIN-246	Dry	2019-08-27	City		Nb pl ar	No flow no sign of illicit discharge	Dry	No	
OF-740	DISIN-247	Dry	2019-08-27	City		PL NB AR	No flow no sign of illicit discharge	Dry	No	
OF-254	DISIN-248	Dry	2019-08-27	City		PL				
OF-98	DISIN-249	Dry	2019-08-27	City		Nb pl ar	No flow. Some trash.	Dry	No	
OF-257	DISIN-250	Dry	2019-08-27	City		PL NB AR	No flow no sign of illicit discharge	Dry	No	
OF-597	DISIN-251	Dry	2019-08-27	City		PL AR NB	Could not find outfall. No water in catch basin. No flow no sign of illicit discharge	Dry	Yes	Completely
OF-464	DISIN-227	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-465	DISIN-228	Dry	2019-08-26	City		PL AR	No flow. No sign of illicit discharge	Dry	No	
OF-461	DISIN-229	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-459	DISIN-230	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-460	DISIN-231	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-80	DISIN-232	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge			
OF-79	DISIN-233	Dry	2019-08-26	City		PL AR	Could not find, looked in catchbasin No flow no sign of illicit discharge	Dry	No	
OF-78	DISIN-234	Dry	2019-08-26	City		PL AR	No flow. No sign of illicit discharge	Dry	Yes	2
OF-275	DISIN-235	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-272	DISIN-236		2019-08-26	City		PL AR	Could not find outfall. Manhole was dry			
OF-714	DISIN-237	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-87	DISIN-238	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-280	DISIN-239	Dry	2019-08-26	City		PL AR	No flow no sign of illicit discharge	Dry	No	
OF-430	DISIN-206	Wet	2019-08-22	City		PL NB	No flow no sign of illicit discharge	Dry	No	
OF-429	DISIN-207	Wet	2019-08-22	City		PL NB	No flow no sign of illicit discharge	Dry	No	
OF-22	DISIN-208	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	

City of Woburn
MS4 Outfall Inspections
October 8, 2019 - August 28, 2019

f+A:ASacilityid	insp_id	category	insp_date	insp_by	insp_other	inspector	comments	flow_desc	submerged	ht_abv_out
OF-21	DISIN-209	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-422	DISIN-210	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-449	DISIN-211	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-450	DISIN-212	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-452	DISIN-213	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-77	DISIN-214	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-370	DISIN-215	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-23	DISIN-216	Wet	2019-08-22	City		PL NB	No flow no sign of illicit discharge	Dry	No	
OF-568	DISIN-217	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-569	DISIN-218	Wet	2019-08-22	City		Nb pl				
OF-732	DISIN-219	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-734	DISIN-220	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-574	DISIN-221	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	Yes	2
OF-467	DISIN-222	Wet	2019-08-22	City		Nb pl	No flow no sign of illicit discharge	Dry	No	
OF-56	DISIN-223	Wet	2019-08-22	City		PL NB	No flow no sign of illicit discharge	Dry	No	
OF-55	DISIN-224	Wet	2019-08-22	City		PL NB	No flow no sign of illicit discharge	Dry	No	
OF-54	DISIN-225	Wet	2019-08-22	City		PL NB	No flow no sign of illicit discharge			
OF-625	DISIN-226	Wet	2019-08-22	City		PL NB	No flow no sign of illicit discharge	Dry	No	
OF-625	DISIN-199	Dry	2019-08-21	City		PL MM NB	No flow no sign of illicit discharge	Dry	No	
OF-517	DISIN-200	Dry	2019-08-21	City		PL MM NB	No flow no sign of illicit discharge	Dry	Yes	6
OF-518	DISIN-201	Dry	2019-08-21	City		PL MM NB	No flow no sign of illicit discharge	Dry	No	
OF-728	DISIN-202	Dry	2019-08-21	City		PL MM NB	No flow no sign of illicit discharge	Dry	Yes	High
OF-729	DISIN-203	Dry	2019-08-21	City		PL MM NB	No flow no sign of illicit discharge	Dry	Yes	Completely submerged
OF-598	DISIN-204	Dry	2019-08-21	City		PI MM NB	Could not find outfall, very overgrown. Standing water in catchbasin. No flow no sign of illicit discharge	Dry		
OF-101	DISIN-205	Dry	2019-08-21	City		PL MM NB	Schlick way under sidewalk. No flow no sign of illicit discharge	Dry	No	
OF-94	DISIN-195	Dry	2019-08-20	City		PL MM NB	No flow no sign of illicit discharge	Dry	Yes	3
OF-674	DISIN-196	Dry	2019-08-20	City		PL MM NB	No flow no sign of illicit discharge	Dry	Yes	3
OF-454	DISIN-197	Dry	2019-08-20	City		PL MM NB	No flow no sign of illicit discharge	Dry	Yes	3
OF-455	DISIN-198	Dry	2019-08-20	City		PL MM NB	No flow no sign of illicit discharge	Dry	No	
OF-463	DISIN-189	Dry	2019-08-19	City		PL MM NB	Could not find outfall. Standing water in catchbasin. No flow no sign of illicit discharge			
OF-570	DISIN-190	Dry	2019-08-19	City		Nb pl mm	Flow, samples taken	Heavy	No	

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OF-437	DISIN-191	Dry	2019-08-19	City		PL MM NB	No flow no sign of illicit discharge	Dry	No	
OF-291	DISIN-192	Dry	2019-08-19	City		PL MM NB	No flow no sign of illicit discharge	Dry	No	
OF-290	DISIN-193	Dry	2019-08-19	City		Nb pl mm	Partially submerged no flow no sign of illicit discharge	Dry	Yes	6"
OF-289	DISIN-194	Dry	2019-08-19	City		Nb pl mm	Submerged no flow no sign of illicit discharge	Dry	Yes	11"
OF-569	DISIN-159	Dry	2019-08-15	City		Ah ar pl nb	No flow no sign of illicit discharge	Dry	No	
OF-568	DISIN-160	Dry	2019-08-15	City		Pl ah nb ar	No flow no sign of illicit discharge			
OF-710	DISIN-161	Dry	2019-08-15	City		Ah pl nb ar	Couldn't locate outfall, checked cb and water was deep and stagnant, no flow out, no sign of illicit discharge	Dry	No	
OF-29	DISIN-162	Dry	2019-08-15	City		Nb ar ah pl	Low flow, samples taken	Moderate	No	
OF-432	DISIN-163	Dry	2019-08-15	City		PL AH AR NB	No flow no sign of illicit discharge standing water	Dry	Yes	~2
OF-479	DISIN-164	Dry	2019-08-15	City		Ah nb ar	No flow no sign of illicit discharge	Dry	No	
OF-478	DISIN-165	Dry	2019-08-15	City		Ah at nb	No flow no sign of illicit discharge	Dry	No	
OF-469	DISIN-166	Dry	2019-08-15	City		Ah nb	No flow no sign of illicit discharge	Dry	No	
OF-468	DISIN-167	Dry	2019-08-15	City		Ah nb	No flow no sign of illicit discharge	Dry	No	
OF-470	DISIN-168	Dry	2019-08-15	City		Ah nb	No flow no sign of illicit discharge	Dry	No	
OF-471	DISIN-169	Dry	2019-08-15	City		Ah nb	No flow no sign of illicit discharge	Dry	No	
OF-757	DISIN-170	Dry	2019-08-15	City		Nb ah	No flow no sign of illicit discharge	Dry	No	
OF-45	DISIN-171	Dry	2019-08-15	City		Nb ar ah	Outfall submerged, no flow, confirmed in upstream cb and mh	Dry	Yes	Fully
OF-42	DISIN-172	Dry	2019-08-15	City		Ar ah nb	No flow no sign of illicit discharge	Dry	No	
OF-386	DISIN-173	Dry	2019-08-15	City		Mm ah nb	No flow no sign of illicit discharge	Dry	No	
OF-563	DISIN-174	Dry	2019-08-15	City		Nb ah	Outfall buried or underneath water (see photo)	Dry	Yes	Unknown
OF-384	DISIN-175	Dry	2019-08-15	City		Ah mm nb ar	No flow no sign of illicit discharge	Dry	No	
OF-385	DISIN-176	Dry	2019-08-15	City						
OF-382	DISIN-177	Dry	2019-08-15	City		PL	No flow			
OF-388	DISIN-178	Dry	2019-08-15	City		Nb mm ah ar	Couldn't locate outfall, pulled closest cab and it was dry	Dry		
OF-402	DISIN-179	Dry	2019-08-15	City		Ah nb mm ar	No flow no sign of illicit discharge; partially submerged	Dry	Yes	6
OF-594	DISIN-180	Dry	2019-08-15	City		Mm ar ah nb	No flow no sign of illicit discharge	Dry	No	
OF-564	DISIN-181	Dry	2019-08-15	City		Mm nb ah ar	Outfall covered in bushes and bees. Pulled nearest cb. No flow no sign of illicit discharge	Dry		
OF-565	DISIN-182	Dry	2019-08-15	City		Ah at mm nb	No flow no sign of illicit discharge	Dry	No	
OF-566	DISIN-183	Dry	2019-08-15	City		Nb mm at ah	No flow no sign of illicit discharge	Dry	No	
OF-405	DISIN-184	Dry	2019-08-15	City		Nb mm ah ar	No flow no sign of illicit discharge	Dry	No	
OF-404	DISIN-185	Dry	2019-08-15	City		Nb mm at ah	No flow no sign of illicit discharge; partially submerged	Dry	Yes	3

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OF-395	DISIN-186	Dry	2019-08-15	City		Mm ah nb ar	No flow no sign of illicit discharge	Dry	No	
OF-9	DISIN-187	Dry	2019-08-15	City		Nb mm ah ar	No flow no sign of illicit discharge	Dry	No	
OF-567	DISIN-188	Dry	2019-08-15	City		Nb ar ah mm	No flow no sign of illicit discharge	Dry	No	
OF-38	DISIN-147	Dry	2019-08-14	City		Ah mm nb ar	Low flow, samples taken	Trickling	No	
OF-50	DISIN-148	Dry	2019-08-14	City		Mm ah nb ar	No flow no sign of illicit discharge	Dry	No	
OF-51	DISIN-149	Dry	2019-08-14	City		Mm ah nb ar	No sign of illicit discharge	Moderate	No	
OF-14	DISIN-150	Dry	2019-08-14	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-91	DISIN-151	Dry	2019-08-14	City		Mm nb ar		Dry	No	
OF-92	DISIN-152	Dry	2019-08-14	City		Mm pl nb	No flow no sign of illicit discharge	Dry	No	
OF-789	DISIN-153	Dry	2019-08-14	City		Mm pl nb	No flow no sign of illicit discharge	Dry	No	
OF-116	DISIN-154	Dry	2019-08-14	City		Mm ar nb pl	No flow no sign of illicit discharge	Dry	No	
OF-626	DISIN-155	Dry	2019-08-14	City		Mm at nb pl	No flow no sign of illicit discharge	Dry	Yes	3
OF-231	DISIN-156	Dry	2019-08-14	City		Mm nb at pl	No flow no sign of illicit discharge	Dry	No	
OF-230	DISIN-157	Dry	2019-08-14	City		Nb mm at pl	No flow no sign of illicit discharge	Dry	No	
OF-93	DISIN-158	Dry	2019-08-14	City		mm at nb pl	No flow no sign of illicit discharge	Dry	No	
OF-456	DISIN-135	Dry	2019-08-13	City		Ah mm nb ar	Low flow, samples taken	Trickling	No	
OF-104	DISIN-136	Dry	2019-08-13	City		Ah mm nb ar	No flow no sign of illicit discharge	Dry	No	
OF-368	DISIN-137	Dry	2019-08-13	City		Nb ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-300	DISIN-138	Dry	2019-08-13	City		Mm ah nb ar	No flow no sign of illicit discharge	Dry	No	
OF-236	DISIN-139	Dry	2019-08-13	City		PL AH AR NB	No flow no sign of illicit discharge	Dry	No	
OF-4	DISIN-140	Dry	2019-08-13	City		PL AH AR NB	No flow no sign of illicit discharge	Dry	No	
OF-3	DISIN-141	Dry	2019-08-13	City		PL AH AR NB	No flow no sign of illicit discharge	Dry	No	
OF-6	DISIN-142	Dry	2019-08-13	City		Ah pl	No flow no sign of illicit discharge	Dry	No	
OF-410	DISIN-143	Dry	2019-08-13	City		Ah nb ar PL	No flow no sign of illicit discharge, covered by stump and leaves	Dry	No	
OF-7	DISIN-144	Dry	2019-08-13	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-8	DISIN-145		2019-08-13	City		PL AH AR NB	Could not find, very overgrown			
OF-561	DISIN-146	Dry	2019-08-13	City		Ah pl	Couldn't find outfall, resident said tree fell years ago and broke pipe. Water now shoots up from grounds and floods his yard. Photo taken of a broken pipe near mapped outfall			
OF-349	DISIN-111	Dry	2019-08-12	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-576	DISIN-112	Dry	2019-08-12	City		Ah	No flow no sign of illicit discharge, submerged but no flow	Dry	Yes	9
OF-575	DISIN-113	Dry	2019-08-12	City		Ah	No flow no sign of illicit discharge	Dry	Yes	4
OF-77	DISIN-114	Dry	2019-08-12	City		Ah mm nb	No flow no sign of illicit discharge	Dry	No	

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OF-370	DISIN-115	Dry	2019-08-12	City		Ah mm nb	No flow no sign of illicit discharge	Dry	No	
OF-54	DISIN-116	Dry	2019-08-12	City		Nb ar ah mm	No flow no sign of illicit discharge	Dry	No	
OF-56	DISIN-117	Dry	2019-08-12	City		Nb ar ah mm	No flow no sign of illicit discharge	Dry	No	
OF-56	DISIN-118	Dry	2019-08-12	City		Nb ar ah mm	No flow no sign of illicit discharge	Dry	No	
OF-55	DISIN-119	Dry	2019-08-12	City		Ah mb mm ar	No flow no sign of illicit discharge and partially submerged	Dry	Yes	8
OF-562	DISIN-120	Dry	2019-08-12	City		Ah mm nb ar	No flow no sign of illicit discharge; partially submerged	Dry	Yes	5
OF-732	DISIN-121	Dry	2019-08-12	City		Mm ah ar nb	Sluice way no flow	Dry	No	
OF-734	DISIN-122	Dry	2019-08-12	City		Mm nb at ah	Sluice way no flow	Dry	No	
OF-12	DISIN-123	Dry	2019-08-12	City		Ah mm ar nb	No flow no sign of illicit discharge; partially submerged	Dry	Yes	4
OF-596	DISIN-124	Dry	2019-08-12	City		Nb ah ar mm	This is pond water that is infiltrating pipe. Dmh typically submerged,this pipe is at water table level	Dry	Yes	4"
OF-493	DISIN-125	Dry	2019-08-12	City		Nb ah ar mm	No flow no sign of illicit discharge	Dry	No	
OF-519	DISIN-126	Dry	2019-08-12	City						
OF-543	DISIN-127	Dry	2019-08-12	City		Ah mm pl nb	No flow no sign of illicit discharge	Dry	No	
OF-545	DISIN-128	Dry	2019-08-12	City		Ah mm pl nb	No flow no sign of illicit discharge	Dry	No	
OF-551	DISIN-129	Dry	2019-08-12	City		Ah mm	No flow no sign of illicit discharge	Dry	No	
OF-241	DISIN-130	Dry	2019-08-12	City		Ah mm pl nb	No flow no sign of illicit discharge	Dry	No	
OF-238	DISIN-131	Dry	2019-08-12	City		PL MM AH NB	No flow no sign of illicit discharge	Dry	No	
OF-237	DISIN-132	Wet	2019-08-12	City		PL MM AH NB	No flow no sign of illicit discharge	Dry	No	
OF-63	DISIN-133	Dry	2019-08-12	City		Mm ah pl nb	No flow no sign of illicit discharge	Dry	No	
OF-66	DISIN-134	Dry	2019-08-12	City		Mm ah pl nb	No flow no sign of illicit discharge	Dry	No	
OF-10	DISIN-94	Wet	2019-08-08	City		AR NB MM AR	No sign of illicit discharge	Moderate	No	
OF-403	DISIN-95	Wet	2019-08-08	City		Ah mm nd ar	No flow no sign of illicit discharge , outfall submerged	Dry	Yes	7
OF-578	DISIN-96	Wet	2019-08-08	City		Ah mm nb ar	No flow no sign of illicit discharge	Dry	No	
OF-397	DISIN-97	Wet	2019-08-08	City		Ah mm nb at	No flow no sign of illicit discharge	Dry	No	
OF-398	DISIN-98	Wet	2019-08-08	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-399	DISIN-99	Wet	2019-08-08	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-400	DISIN-100	Wet	2019-08-08	City		Ah mm nb ar	No flow no sign of illicit discharge	Dry	No	
OF-408	DISIN-101	Wet	2019-08-08	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-401	DISIN-102	Wet	2019-08-08	City		Ah nb	No flow no sign of illicit discharge , heavy thicket surrounding outfall	Dry	No	
OF-450	DISIN-103	Wet	2019-08-08	City		Nb pl ar	No flow no sign of illicit discharge	Dry	No	
OF-452	DISIN-104	Wet	2019-08-08	City		Pl ar nb	No sign of illicit discharge	Dry	No	

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OF-449	DISIN-105	Wet	2019-08-08	City		PL AR NB	No sign of illicit discharge. No flow			
OF-379	DISIN-106	Wet	2019-08-08	City		Nb pl ar	No flow no sign of illicit discharge	Dry	No	
OF-353	DISIN-107	Wet	2019-08-08	City		Pl ar nb	No sign of illicit discharge	Dry	Yes	
OF-660	DISIN-108	Wet	2019-08-08	City		Pl nb ar	No flow no sign of illicit discharge			
OF-521	DISIN-109	Wet	2019-08-08	City		Pl ar nb	No sign of illicit discharge	Dry	No	
OF-122	DISIN-110	Wet	2019-08-08	City		Pl ar nb	No sign of illicit discharge			
OF-712	DISIN-90	Dry	2019-08-07	City		Ah mm pl nb	Covered by mud and asphalt, unable to tell if flowing	Dry	Yes	
OF-124	DISIN-91	Dry	2019-08-07	City		AR MM PT NB	No flow. No sign of illicit discharge	Dry	Yes	
OF-125	DISIN-92	Dry	2019-08-07	City		AR NB PL NB	No flow. No sign of illicit discharge	Dry	Yes	
OF-312	DISIN-93	Dry	2019-08-07	City		Nb mm ar pl	No flow and no sign of illicit discharge	Dry	No	
OF-379	DISIN-81	Dry	2019-08-05	City		Mm at nb	No flow no sign of illicit discharge	Dry	No	
OF-574	DISIN-82	Dry	2019-08-05	City		Mm ar nb	No flow no sign of illicit discharge	Dry	Yes	
OF-270	DISIN-83	Dry	2019-08-05	City		Pl mm ar	No flow no sign of illicit discharge	Dry	No	
OF-271	DISIN-84	Dry	2019-08-05	City		PL MM AR	Could not find outfall. Pulled closest manhole. Dry. No sign of illicit discharge			
OF-718	DISIN-85	Dry	2019-08-05	City		Pl mm ar	No sign of illicit discharge			
OF-330	DISIN-86	Dry	2019-08-05	City		Pl mm ar	No sign of illicit discharge			
OF-660	DISIN-87	Dry	2019-08-05	City		Pl mm ar nb	No sign of illicit discharge			
OF-660	DISIN-88	Dry	2019-08-05	City		Pl mm ar nb	No sign of illicit discharge	Dry	Yes	
OF-409	DISIN-89	Dry	2019-08-05	City		Pl mm ar nb	No sign of illicit discharge			
OF-658	DISIN-62	Dry	2019-08-01	City		MM AR AH	Outfall covered by brush. Pulled closest manhole. No sign of illicit discharge. Dry	Dry		
OF-47	DISIN-63	Dry	2019-08-01	City		Ah mm ar	No flow no sign of illicit discharge			
OF-47	DISIN-64	Dry	2019-08-01	City		Ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-46	DISIN-65	Dry	2019-08-01	City		Ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-48	DISIN-66	Dry	2019-08-01	City		Ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-391	DISIN-67	Dry	2019-08-01	City		Ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-555	DISIN-68	Dry	2019-08-01	City		Ah mm ar	No sign of illicit discharge	Dry	No	
OF-22	DISIN-69	Dry	2019-08-01	City		Ah mm ar	No sign of illicit discharge	Dry	No	
OF-21	DISIN-70	Dry	2019-08-01	City		Ah at mm	No sign of illicit discharge	Dry	No	
OF-467	DISIN-71	Dry	2019-08-01	City		Ah mm ar	Erosion downstream of area in picture but it appears to be covered by leaves. No sign of illicit discharge	Dry	No	
OF-122	DISIN-72	Dry	2019-08-01	City		Ah mm ar	No sign of illicit discharge, no flow	Dry	No	
OF-521	DISIN-73	Dry	2019-08-01	City		mm ah ar	No flow no sign of illicit discharge	Dry	No	

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OF-753	DISIN-74	Dry	2019-08-01	City		Mm ah ar	No flow no sign of illicit discharge, not sure which of the two photos is the mapped outfall(???)	Dry	No	
OF-107	DISIN-75	Dry	2019-08-01	City		Ah	No flow no sign of illicit discharge	Dry	Yes	2
OF-591	DISIN-76	Dry	2019-08-01	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-443	DISIN-77	Dry	2019-08-01	City		Mm ah ar	No flow, submerged, no sign of illicit discharge, outfall is actually a culvert	Dry	Yes	9
OF-387	DISIN-78	Dry	2019-08-01	City		Ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-664	DISIN-79	Dry	2019-08-01	City		Ah mm ar	Outfall partiality submerged, appears to be no flow, no sign of illicit discharge	Dry	Yes	8
OF-5	DISIN-80	Dry	2019-08-01	City						
OF-735	DISIN-58	Dry	2019-07-31	City		Ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-736	DISIN-59	Dry	2019-07-31	City		Ah mm ar	No flow no sign of illicit discharge	Dry	No	
OF-34	DISIN-60	Dry	2019-07-31	City		Ah mm ar	No sign no sign of illicit discharge; map of location is slightly off	Dry	No	
OF-75	DISIN-61	Dry	2019-07-31	City		Mm ah ar	No sign of illicit discharge	Dry	No	
OF-139	DISIN-57	Dry	2019-07-29	City		Ah ar	No flow no sign of illicit discharge	Dry	No	
OF-233	DISIN-52	Dry	2019-07-25	City		Mm ah pl	No flow no sign of illicit discharge	Dry	No	
OF-128	DISIN-53	Dry	2019-07-25	City		Mm ah pl	No flow no sign of illicit discharge	Dry	No	
OF-11	DISIN-54	Dry	2019-07-25	City		Ah pl mm	Couldn't locate outfall	Dry		
OF-13	DISIN-55	Dry	2019-07-25	City		Mm pl ah	No flow no sign of illicit discharge	Dry	No	
OF-415	DISIN-56	Dry	2019-07-25	City		Ah pl mm	No flow no sign of illicit discharge	Dry	Yes	12
OF-516	DISIN-51	Dry	2019-07-02	City		Mm ah pl	No flow no sign of illicit discharge			
OF-345	DISIN-37	Wet	2019-07-01	City		Ah mm pl	Very little flow	Trickling	No	
OF-346	DISIN-38	Wet	2019-07-01	City		Ah mm pl	No flow no sign of illicit discharge	Dry	No	
OF-348	DISIN-39	Wet	2019-07-01	City		Ah mm pl	Flow going back up pipe	Dry	Yes	0
OF-612	DISIN-40	Wet	2019-07-01	City		Ah mm pl	No flow no sign of illicit discharge	Dry	No	
OF-212	DISIN-41		2019-07-01	City		Mm ah pl		Heavy	No	
OF-557	DISIN-42	Wet	2019-07-01	City		PL MM AH	No flow no sign of illicit discharge			
OF-363	DISIN-43	Wet	2019-07-01	City		PL MM AH	No flow no sign of illicit discharge partially submerged			
OF-362	DISIN-44	Wet	2019-07-01	City		Ah mm pl	No flow no sign of illicit discharge	Dry	No	
OF-23	DISIN-45	Wet	2019-07-01	City		Ah mm pl	No flow no sign of illicit discharge	Dry	No	
OF-430	DISIN-46	Wet	2019-07-01	City		Ah mm pl	No flow no sign of illicit discharge	Dry	No	
OF-429	DISIN-47	Wet	2019-07-01	City		PL MM AH	No flow no sign of illicit discharge			
OF-593	DISIN-48	Wet	2019-07-01	City		Ah mm pl	No flow no sign of illicit discharge	Dry	No	
OF-621	DISIN-49	Wet	2019-07-01	City		Ah mm pl	No flow no sign of illicit discharge	Dry	No	

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OF-418	DISIN-50		2019-07-01	City						
OF-433	DISIN-34	Dry	2019-06-25	City		Ah	No flow no sign of illicit discharge	Dry	No	
OF-41	DISIN-35	Dry	2019-06-25	City		PL MM AH	No flow no sign of illicit discharge			
OF-308	DISIN-36	Dry	2019-06-25	City		Ah	Stagnant water underneath, no flow no signs of illicit discharge	Dry	No	
OF-508	DISIN-18	Dry	2019-05-21	City		Mm ah pl				
OF-509	DISIN-19	Dry	2019-05-21	City		MM AH PL	No flow no sign of illicit discharge	Dry		
OF-705	DISIN-20	Dry	2019-05-21	City			No flow no sign of illicit discharge	Dry		
OF-582	DISIN-27	Dry	2019-05-21	City		Ah mm pl	No flow, no sign of illicit discharge	Dry	No	
OF-705	DISIN-21		2019-05-21	City		Mm ah pl	Pulled manhole no sign of flow or illicit discharge. Could not find outfall	Dry	No	
OF-717	DISIN-22		2019-05-21	City		MM PL AH	No flow no sign of illicit discharge	Dry	No	
OF-205	DISIN-23	Dry	2019-05-21	City		Ah mm pl	No flow, partially submerged, murky water	Dry	Yes	1
OF-560	DISIN-24	Dry	2019-05-21	City		Ah mm pl	No flow, no sign of illicit discharge, partially submerged	Dry	Yes	1
OF-557	DISIN-25	Dry	2019-05-21	City		Ah mm pl	No flow, no sign of illicit discharge	Dry	No	
OF-115	DISIN-26	Dry	2019-05-21	City		MM AH PL	No flow no sign of illicit discharge	Dry	No	
OF-528	DISIN-28	Dry	2019-05-21	City		Ah mm pl	No flow, no sign of illicit discharge	Dry	Yes	4
OF-20	DISIN-29	Dry	2019-05-21	City		Mm ah pl		Dry	No	
OF-422	DISIN-30	Dry	2019-05-21	City		MM AH PL		Trickling	No	
OF-102	DISIN-31	Dry	2019-05-21	City		Mm ah pl		Dry	Yes	
OF-723	DISIN-32	Dry	2019-05-21	City		Ah mm pl	No flow, no sign of illicit discharge, partially submerged	Dry	Yes	8
OF-95	DISIN-33	Dry	2019-05-21	City		Ah mm pl	No flow no sign of illicit discharge covered by leaves			
OF-713	DISIN-17	Dry	2019-05-16	City		Ah mm	No flow, no sign of illicit discharge, outfall partially collapsed	Dry	No	
OF-40	DISIN-10	Dry	2019-05-16	City		Ah mm	Moderate flow, no signs of illicit discharge, outfall located near fence at bottom of hill	Moderate	No	
OF-37	DISIN-11	Dry	2019-05-16	City		Ah mm	No flow, no sign of illicit discharge	Dry	No	
OF-631	DISIN-12	Dry	2019-05-16	City		Ah mm	Outfall submerged, can not test	Moderate	Yes	
OF-35	DISIN-13	Dry	2019-05-16	City		Ah mm	No flow, no sign of illicit discharge	Dry	No	
OF-82	DISIN-14	Dry	2019-05-16	City		Ah mm	Outfall submerged, appears to be stagnant	Dry	Yes	4
OF-83	DISIN-15	Dry	2019-05-16	City		Ah mm	Outfall submerged, no signs of flow, unable to test	Dry	Yes	4
OF-670	DISIN-16	Dry	2019-05-16	City		Ah mm	No outfall found, catch basin full	Dry	No	
OF-523	DISIN-7	Wet	2019-05-15	City		MM AH	Trickling			
OF-523	DISIN-8	Wet	2019-05-15	City		MM AH		Trickling	No	
OF-120	DISIN-9	Wet	2019-05-15	City		Ah mm	Moderate flow, no sign of illicit discharge, water very clear	Moderate	No	

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OF-389	DISIN-6	Dry	2019-05-14	City		Ah mm	Moderate flow no sign of illicit discharge			
OF-390	DISIN-2	Dry	2019-05-13	City		Ac MM	No flow no sign of illicit discharge	Dry	No	
OF-2	DISIN-3	Dry	2019-05-13	City		MM AC	No flow no sign of illicit discharge	Dry	No	
OF-1	DISIN-4	Dry	2019-05-13	City		MM AC	No flow no sign of illicit discharge	Dry	No	
OF-68	DISIN-5	Wet	2019-05-13	City		AC MM	Steady Flow. No signs of illicit discharge	Moderate	No	
OF-313	DISIN-1	Dry	2018-09-17	City		tbs		Trickling	Yes	10
OF-590	INSP-535-DRY	Dry	2018-08-08	City		Mm pl	Outfall under road. Tested nearest manhole	Moderate	No	
OF-55	INSP-532-DRY	Dry	2018-08-02	City		Mm pl	No flow no sign of illicit discharge		No	
OF-694	INSP-533-DRY	Dry	2018-08-02	City		Mm pl	Outfall under road. Closest Mh dry		No	
OF-69	INSP-534-DRY	Dry	2018-08-02	City		Mm pl	No flow no sign of illicit discharge		No	
OF-663	INSP-530-DRY	Dry	2018-08-01	City		Mm pl	Could not locate outfall but closest manhole dry		No	
OF-663	INSP-531-DRY	Dry	2018-08-01	City		Mm pl	Could not locate outfall but closest manhole dry		No	
OF-79	INSP-526-DRY	Dry	2018-07-31			MRD	Could not find, looked in catchbasin No flow no sign of illicit discharge		No	
OF-272	INSP-527-DRY	Dry	2018-07-31	City		MRD	Could not locate outfall, opened manhole No flow no sign of illicit discharge		No	
OF-706	INSP-528-DRY	Dry	2018-07-31			PL md ms rh	No flow no sign of illicit discharge		No	
OF-517	INSP-529-DRY	Dry	2018-07-31	City		PL MS MD RH	Submerged no sign of illicit discharge		No	
OF-710	INSP-521-DRY	Dry	2018-07-30	City		Mm pl	Couldn't find Outfall, but nearest CB is dry		No	
OF-709	INSP-522-DRY	Dry	2018-07-30	City		Mm pl	No outfall found. Closest manhole empty		No	
OF-669	INSP-523-DRY	Dry	2018-07-30	City		Mm pl	Could not locate outfall. Closest Manhole full of water. Suspected blocked.		No	
OF-708	INSP-524-DRY	Dry	2018-07-30	City		PL MM MD	No flow no sign of illicit discharge.		No	
OF-670	INSP-525-DRY	Dry	2018-07-30			PL MM MD	Can't find outfall, catch basin full, suspected pipe crushed		No	
OF-618	INSP-518-DRY	Dry	2018-07-25	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-528	INSP-519-DRY	Dry	2018-07-25	City		Ac	OVER GROWN CHECKED CB CLEARLY NO FLOW NO SIGN OF ILLICIT DISCHARGE	Dry	No	
OF-529	INSP-520-DRY	Dry	2018-07-25	City		Ac	No flow no sign of illicit discharge over grown checked cb upstream no flow	Dry	No	
OF-633	INSP-516-DRY	Dry	2018-07-16	City		Ac	Couldn't find of pulled cb 1467 had no flow therefore we can conclude of had no flow no signs of illicit discharge	Dry	No	
OF-373	INSP-517-DRY	Dry	2018-07-16	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-68	INSP-513-DRY	Dry	2018-07-12	City		Ac	Flow no sign of illicit discharge	Dry	No	
OF-713	INSP-514-DRY	Dry	2018-07-12	City		Ac	No flow no sign of illicit discharge. Checked mh 1993 no flow	Dry	No	
OF-96	INSP-515-DRY	Dry	2018-07-12	City		Ac			No	
OF-448	INSP-505-DRY	Dry	2018-07-11	City		Ac	Of completely submerged water stagnet no flow no sign of illicit discharge. checked man hole 1388 also had no flow.	Dry	Yes	1
OF-452	INSP-506-DRY	Dry	2018-07-11	City		Ac	No flow no sign of illicit discharge	Dry	No	

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OF-648	INSP-507-DRY	Dry	2018-07-11	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-320	INSP-508-DRY	Dry	2018-07-11	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-288	INSP-509-DRY	Dry	2018-07-11	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-610	INSP-510-DRY	Dry	2018-07-11	City		Ac	No flow no sign of illicit discharge very thick brush checked mh_782 no flow	Dry	No	
OF-614	INSP-511-DRY	Dry	2018-07-11	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-71	INSP-512-DRY	Dry	2018-07-11	City		Ac	Of covered in thick brush checked CB upstream no flow no sign of illicit discharge	Dry	No	
OF-513	INSP-503-DRY	Dry	2018-07-09	City		Ac	Flow no sign of illicit discharge no took sample	Moderate	No	
OF-581	INSP-504-DRY	Dry	2018-07-09	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-546	INSP-497-DRY	Dry	2018-07-03	City		Ac	No flow no sign of illicit	Dry	No	
OF-551	INSP-498-DRY	Dry	2018-07-03	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-720	INSP-499-DRY	Dry	2018-07-03	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-332	INSP-500-DRY	Dry	2018-07-03	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-333	INSP-501-DRY	Dry	2018-07-03	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-334	INSP-502-DRY	Dry	2018-07-03	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-198	INSP-492-DRY	Dry	2018-07-02	City		Ac	Of submerged no visible flow (checked mh2060) no sign of illicit discharge		No	
OF-612	INSP-493-DRY	Dry	2018-07-02	City		Ac	No flow no sign of illicit discharge		No	
OF-497	INSP-494-DRY	Dry	2018-07-02	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-449	INSP-495-DRY	Dry	2018-07-02	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-450	INSP-496-DRY	Dry	2018-07-02	City		PL	No flow no sign of illicit discharge	Dry	No	
OF-508	INSP-487-DRY	Dry	2018-06-27	City		Mm pl	Moderate flow, Smell took sample.	Moderate	No	
OF-367	INSP-491-DRY	Dry	2018-06-27	City		Mm pl	Neighbors complaining that sand, salt, and oil from school were making there way into the pond and slowly filling it and killing off the wildlife.	Moderate	No	
OF-349	INSP-488-DRY	Dry	2018-06-27	City		Mm pl	No flow no sign of illicit discharge.	Dry	No	
OF-205	INSP-489-DRY	Dry	2018-06-27	City		Mm pl	No flow no sign of illicit discharge	Dry	No	
OF-560	INSP-490-DRY	Dry	2018-06-27	City		Mm pl	No flow no sign of illicit discharge	Dry	Yes	
OF-702	INSP-479-DRY	Dry	2018-06-26	City		Ac	Flow no sign of illicit discharge. Sampled OF	Moderate	No	
OF-61	INSP-480-DRY	Dry	2018-06-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-299	INSP-481-DRY	Dry	2018-06-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-301	INSP-482-DRY	Dry	2018-06-26	City		Ac	No flow no sign of illicit discharge		No	
OF-302	INSP-483-DRY	Dry	2018-06-26	City		Ac	No flow no sign of illicit discharge. Stone culvert	Dry	No	
OF-305	INSP-484-DRY	Dry	2018-06-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-304	INSP-485-DRY	Dry	2018-06-26	City		Ac	No flow no sign of illicit discharge	Dry	No	

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OF-778	INSP-486-DRY	Dry	2018-06-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-82	INSP-476-DRY	Dry	2018-06-20	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-83	INSP-477-DRY	Dry	2018-06-20	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-435	INSP-478-DRY	Dry	2018-06-20	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-578	INSP-472-DRY	Dry	2018-06-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-515	INSP-473-DRY	Dry	2018-06-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-514	INSP-474-DRY	Dry	2018-06-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-119	INSP-475-DRY	Dry	2018-06-12	City		Ac	No flow no sign of illicit	Dry	No	
OF-652	INSP-469-DRY	Dry	2018-05-31	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-89	INSP-470-DRY	Dry	2018-05-31	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-90	INSP-471-DRY	Dry	2018-05-31	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-675	INSP-463-DRY	Dry	2018-05-29	City		Ac	Of submerged cb-1082 no flow no sign of illicit discharge	Dry	No	
OF-623	INSP-464-DRY	Dry	2018-05-29	City		Ac	Of covered in thick brush did confirm no flow no sign of illicit discharge	Dry	No	
OF-726	INSP-465-DRY	Dry	2018-05-29	City		Ac	No flow no sign of illicit discharge of in thick brush could not get a decent photo	Dry	No	
OF-108	INSP-466-DRY	Dry	2018-05-29	City		Ac	No flow no signs of illicit discharge. Of collapsed	Dry	No	
OF-492	INSP-467-DRY	Dry	2018-05-29	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-102	INSP-468-DRY	Dry	2018-05-29	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-327	INSP-460-DRY	Dry	2017-12-07	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-328	INSP-461-DRY	Dry	2017-12-07	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-329	INSP-462-DRY	Dry	2017-12-07	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-237	INSP-459-DRY	Dry	2017-10-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-230	INSP-453-DRY	Dry	2017-08-31	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-124	INSP-454-DRY	Dry	2017-08-31	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-125	INSP-455-DRY	Dry	2017-08-31	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-579	INSP-456-DRY	Dry	2017-08-31	City		Ac mm	No flow no sign of illicit discharge. Checked man hole had no flow	Dry	No	
OF-509	INSP-457-DRY	Dry	2017-08-31	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-300	INSP-458-DRY	Dry	2017-08-31	City		Mm ac	No flow no sign of illicit discharge.		No	
OF-212	INSP-452-DRY	Dry	2017-08-29	City		Ac	Moderate Flow Screened sample	Moderate	No	
OF-60	INSP-448-DRY	Dry	2017-08-29	City		Mm ac	No flow no sign of illicit discharge.		No	
OF-591	INSP-449-DRY	Dry	2017-08-29	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-107	INSP-450-DRY	Dry	2017-08-29	City		Ac mm	No flow no sign of illicit discharge	Dry	No	

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OF-553	INSP-451-DRY	Dry	2017-08-29	City		Ac mm pl	No flow no sign of illicit discharge	Dry	No	
OF-131	INSP-436-DRY	Dry	2017-08-24	City		Ac	Of is flowing took sample no signs of illicit discharge	Moderate	No	
OF-130	INSP-435-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-527	INSP-437-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-707	INSP-438-DRY	Dry	2017-08-24	City		Mm pl ac	No flow no sign of illicit discharge	Dry	No	
OF-769	INSP-439-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-701	INSP-440-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-580	INSP-441-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-740	INSP-442-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-742	INSP-443-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-753	INSP-444-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-522	INSP-445-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-115	INSP-446-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-703	INSP-447-DRY	Dry	2017-08-24	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-278	INSP-423-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-723	INSP-424-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-368	INSP-425-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-363	INSP-426-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-362	INSP-427-DRY	Dry	2017-08-21	City		Mm pl ac	No flow no sign of illicit discharge.		No	
OF-104	INSP-428-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-691	INSP-429-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-231	INSP-430-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-105	INSP-431-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-461	INSP-432-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-625	INSP-433-DRY	Dry	2017-08-21	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-582	INSP-434-DRY	Dry	2017-08-21	City		PL MM AC	No flow no sign of illicit discharge outlet submerged my up system was dry	Dry	No	
OF-172	INSP-411-DRY	Dry	2017-08-14	City		PL MM	No flow no sign of illicit discharge.	Dry	No	
OF-183	INSP-412-DRY	Dry	2017-08-14	City		PL MM		Dry	No	
OF-179	INSP-413-DRY	Dry	2017-08-14	City		PL MM	No flow, no sign of illicit discharge, too deep to reach or get picture	Dry	No	
OF-180	INSP-414-DRY	Dry	2017-08-14	City		PL MM	No flow, no sign of illicit discharge, too deep to reach or get picture	Dry	No	
OF-181	INSP-415-DRY	Dry	2017-08-14	City		PL MM	No flow, no sign of illicit discharge, too deep to reach or get picture		No	

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	INSP-416-DRY	Dry	2017-08-14	City		PL MM	No flow, no sign of illicit discharge, too deep to reach or get picture	Dry	No	
OF-182	INSP-417-DRY	Dry	2017-08-14	City		PL MM	No flow, no sign of illicit discharge, too deep to reach or get picture	Dry	No	
OF-700	INSP-418-DRY	Dry	2017-08-14	City		Mm pl	no flow	Dry	No	
	INSP-419-DRY	Dry	2017-08-14	City		Mm pl	Submerged	Dry	Yes	
	INSP-420-DRY	Dry	2017-08-14	City		Mm pl	Submerged	Dry	Yes	
OF-699	INSP-421-DRY	Dry	2017-08-14	City		PL mm	Submerged	Dry	No	
OF-699	INSP-422-DRY	Dry	2017-08-14	City		PL mm	Submerged	Dry	No	
OF-241	INSP-399-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-240	INSP-400-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-239	INSP-401-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-236	INSP-402-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-128	INSP-403-DRY	Dry	2017-08-08			MD pl	Submerged, no flow no sign of illicit discharge	Dry	No	
OF-238	INSP-404-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-234	INSP-405-DRY	Dry	2017-08-08			MD pl	Covered, no flow no sign of illicit discharge	Dry	No	
OF-233	INSP-406-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge		No	
OF-228	INSP-407-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-227	INSP-408-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-113	INSP-409-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-114	INSP-410-DRY	Dry	2017-08-08			MD pl	No flow no sign of illicit discharge	Dry	No	
OF-43	INSP-398-DRY	Dry	2017-08-03	City		Mm gg	No flow no sign of illicit discharge	Dry	No	
OF-716	INSP-378-DRY	Dry	2017-08-02	City		Mm pl gg		Moderate	No	
OF-265	INSP-379-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge.		No	
OF-276	INSP-380-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge.		No	
OF-682	INSP-381-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge. Overgrown vegetation covering outfall.		No	
OF-683	INSP-382-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge.		No	
OF-266	INSP-383-DRY	Dry	2017-08-02	City		Mm pl gg	Trickling. No sign of illicit discharge.	Trickling	No	
OF-343	INSP-384-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge		No	
OF-347	INSP-385-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge.		No	
OF-348	INSP-386-DRY	Dry	2017-08-02	City		Mm gg pl	No flow no sign of illicit discharge		No	
OF-344	INSP-387-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge	Dry	No	
OF-346	INSP-388-DRY	Dry	2017-08-02	City		Mm pl gg	No flow no sign of illicit discharge		No	

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OF-345	INSP-389-DRY	Dry	2017-08-02	City		Mm pl gg	Trickling. No sign of illicit discharge	Trickling	No	
OF-436	INSP-390-DRY	Dry	2017-08-02	City		Mm gg,md	No flow no sign of illicit discharge		No	
OF-437	INSP-391-DRY	Dry	2017-08-02	City		Mm md gg	No flow no sign of illicit discharge	Dry	No	
OF-439	INSP-392-DRY	Dry	2017-08-02	City		Mm gg md	No flow no sign of illicit discharge	Dry	No	
OF-631	INSP-393-DRY	Dry	2017-08-02	City		Mm md gg	Submerged. No flow no sign of illicit discharge	Dry	No	
OF-290	INSP-394-DRY	Dry	2017-08-02	City		Mm gg md	Partially submerged. No flow no sign of illicit discharge.	Dry	No	
OF-289	INSP-395-DRY	Dry	2017-08-02			Mm gg md	Submerged no flow no sign of illicit discharge	Dry	No	
OF-291	INSP-396-DRY	Dry	2017-08-02			Mm gg md	No flow no sign of illicit discharge	Dry	No	
OF-294	INSP-397-DRY	Dry	2017-08-02			Mm gg md	No flow no sign of illicit discharge	Dry	No	
OF-457	INSP-358-DRY	Dry	2017-08-01	City		Mm mm	Collapsed. No flow no sign of illicit discharge.	Dry	No	
OF-66	INSP-359-DRY	Dry	2017-08-01	City		Mm mm	No flow no sign of illicit discharge.	Dry	No	
OF-692	INSP-360-DRY	Dry	2017-08-01	City		Mm md	No flow no sign of illicit discharge.	Dry	No	
OF-32	INSP-361-DRY	Dry	2017-08-01	City		Mm md	Outfall believed to be under road. Checked nearest CB, dry. No signs of illicit discharge.	Dry	No	
OF-31	INSP-362-DRY	Dry	2017-08-01	City		Mm md	Outfall believed to empty under road. Checked CB upstream, dry. No flow no signs of illicit discharge.		No	
OF-34	INSP-363-DRY	Dry	2017-08-01	City		Mm md	No flow no sign of illicit discharge.	Dry	No	
OF-75	INSP-364-DRY	Dry	2017-08-01	City		Mm md	No flow no sign of illicit discharge.	Dry	No	
OF-697	INSP-365-DRY	Dry	2017-08-01	City		Mm md			No	
OF-714	INSP-366-DRY	Dry	2017-08-01	City		Mm md	Collapsed. No flow no sign of illicit discharge.	Dry	No	
OF-87	INSP-367-DRY	Dry	2017-08-01	City		Mm md	No flow no sign of illicit discharge.	Dry	No	
OF-59	INSP-368-DRY	Dry	2017-08-01	City		Mm md pl	No flow no sign of illicit discharge.		No	
OF-372	INSP-369-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.	Dry	No	
OF-371	INSP-370-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.		No	
OF-315	INSP-371-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.		No	
OF-755	INSP-372-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.	Dry	No	
OF-695	INSP-373-DRY	Dry	2017-08-01	City		Mm pl md			No	
OF-314	INSP-374-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.		No	
OF-573	INSP-375-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.		No	
OF-331	INSP-376-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.		No	
OF-609	INSP-377-DRY	Dry	2017-08-01	City		Mm pl md	No flow no sign of illicit discharge.	Dry	No	
OF-29	INSP-349-DRY	Dry	2017-07-31	City		Mm Pl gg	Flow. No signs of illicit discharge	Moderate	No	
OF-23	INSP-346-DRY	Dry	2017-07-31	City		Mm Pl gg	Outfall submerged. Checked catch basin dry. No signs of illicit discharge		Yes	

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FB-002	INSP-347-DRY	Dry	2017-07-31	City		Mm	Outfall submerged. Checked catch basin upstream, dry. No signs of illicit discharge	Dry	Yes	
OF-432	INSP-348-DRY	Dry	2017-07-31	City		Mm Pl gg	Standing Water, no flow. No sign of illicit discharge.	Dry	No	
OF-418	INSP-350-DRY	Dry	2017-07-31	City		Mm pl	Trickling. No sign of illicit discharge.	Dry	No	
OF-419	INSP-351-DRY	Dry	2017-07-31	City		Mm pl	No flow no sign of illicit discharge.	Dry	No	
OF-421	INSP-352-DRY	Dry	2017-07-31	City		Mm pl	No flow no sign of illicit discharge.	Dry	No	
OF-621	INSP-353-DRY	Dry	2017-07-31	City		Mm pl	No flow no sign of illicit discharge.	Dry	No	
OF-438	INSP-354-DRY	Dry	2017-07-31	City		Mm pl	No flow no sign of illicit discharge.	Dry	No	
OF-465	INSP-355-DRY	Dry	2017-07-31	City		Mm pl	No flow no sign of illicit discharge.	Dry	No	
OF-659	INSP-356-DRY	Dry	2017-07-31	City		Mm pl	Collapsed. No flow.	Dry	No	
OF-335	INSP-357-DRY	Dry	2017-07-31	City		Mm pl	No flow no sign of illicit discharge.	Dry	No	
OF-92	INSP-344-DRY	Dry	2017-07-27	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-704	INSP-345-DRY	Dry	2017-07-27	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-65	INSP-342-DRY	Dry	2017-07-26	City		Ac	Flowing to sample no signs of illicit discharge.	Trickling	No	
OF-281	INSP-331-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-354	INSP-332-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge of caved in	Dry	No	
OF-617	INSP-333-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-352	INSP-334-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-366	INSP-335-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-557	INSP-336-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-558	INSP-337-DRY	Dry	2017-07-26	City		Ac	Of partially submerged no flow	Dry	Yes	3/4
OF-654	INSP-338-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge. Thicccck brush	Dry	No	
OF-457	INSP-339-DRY	Dry	2017-07-26	City		Mm ac pl	No flow no sign of illicit discharge. outfall covered in thick brush.		No	
OF-655	INSP-340-DRY	Dry	2017-07-26	City		Aci	No flow no sign of illicit discharge	Dry	No	
OF-456	INSP-341-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge. Of dumps into culvert pulled mh cover determined no flow	Dry	No	
OF-312	INSP-343-DRY	Dry	2017-07-26	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-273	INSP-329-DRY	Dry	2017-07-25	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-235	INSP-330-DRY	Dry	2017-07-25	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-759	INSP-327-DRY	Dry	2017-07-19	City		Ac	Flow from Culvert. manhole directly up stream dry as a bone, there for of has no flow	Dry	No	
OF-74	INSP-328-DRY	Dry	2017-07-19	City		AC	No flow no sign of illicit discharge	Dry	No	
OF-705	INSP-322-DRY	Dry	2017-07-18	City		Ac	Flowing took sample from cb	Moderate	No	
OF-574	INSP-324-DRY	Dry	2017-07-18	City		Ac	Of submerged catch basin up stream has flow	Moderate	Yes	1

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OF-67	INSP-323-DRY	Dry	2017-07-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-545	INSP-325-DRY	Dry	2017-07-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-543	INSP-326-DRY	Dry	2017-07-18			Ac	No flow no sign of illicit discharge	Dry	No	
OF-285	INSP-311-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-286	INSP-312-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge covered in thick brush	Dry	No	
OF-284	INSP-313-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge covered in thick brush.	Dry	No	
OF-576	INSP-314-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge submerged but no flow	Dry	No	
OF-575	INSP-315-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-583	INSP-316-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-660	INSP-317-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-353	INSP-318-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-283	INSP-319-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge outfall covered in thick brush	Dry	No	
OF-280	INSP-320-DRY	Dry	2017-07-17	City		Ac	No flow and no sign of illicit discharge	Dry	No	
OF-696	INSP-321-DRY	Dry	2017-07-17	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-52	INSP-303-DRY	Dry	2017-07-12	City		Ac	Flow took sample no signs of illicit discharge	Trickling	No	
OF-39	INSP-306-DRY	Dry	2017-07-12	City		Ac	Flowing took sample	Trickling	No	
OF-10	INSP-310-DRY	Dry	2017-07-12	City		Ac	Flow rectangle sample had high Ecoli 7/10	Moderate	No	
OF-571	INSP-301-DRY	Dry	2017-07-12	City		Ac	No flow in system dumps into culvert that contained flow	Dry	No	
OF-572	INSP-302-DRY	Dry	2017-07-12	City		Ac	No flow of system of dumps into culvert which is flowing cb upstream no flow	Dry	No	
OF-556	INSP-304-DRY	Dry	2017-07-12	City		Ac	Culvert has flow from stream however CB that drop into culvert has no flow thereforenof has no flow	Dry	No	
	INSP-305-DRY	Dry	2017-07-12	City		Ac	No flow from CBS culvert contains water	Dry	No	
OF-628	INSP-307-DRY	Dry	2017-07-12	City		Ac	No flow thick brush	Dry	No	
OF-627	INSP-308-DRY	Dry	2017-07-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-406	INSP-309-DRY	Dry	2017-07-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-10	INSP-290-DRY	Dry	2017-07-10	City		Ac	Flow testing of. No signs of illicit discharge.	Moderate	No	
OF-11	INSP-291-DRY	Dry	2017-07-10	City		Ac	Could not locate of catch basin had no flow no visible outlet assuming of caved in. -AC	Dry	No	
OF-389	INSP-292-DRY	Dry	2017-07-10	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-561	INSP-293-DRY	Dry	2017-07-10	City		Ac	No flow in cb can see of pipe no water is going in. We believe OF Has caved in.	Dry	No	
OF-4	INSP-294-DRY	Dry	2017-07-10	Other		Ac	No flow no sign of illicit discharge	Dry	No	
OF-9	INSP-295-DRY	Dry	2017-07-10	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-405	INSP-296-DRY	Dry	2017-07-10	City		Ac	No flow no sign of illicit discharge	Dry	No	

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OF-566	INSP-297-DRY	Dry	2017-07-10	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-383	INSP-298-DRY	Dry	2017-07-10	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-440	INSP-299-DRY	Dry	2017-07-10	City		Ac	No flow no sign of illicit discharge of	Dry	No	
OF-441	INSP-300-DRY	Dry	2017-07-10	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-255	INSP-289-DRY	Dry	2017-07-07	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-445	INSP-276-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-411	INSP-277-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-412	INSP-278-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-414	INSP-279-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge.	Dry	No	
OF-5	INSP-280-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-8	INSP-281-DRY	Dry	2017-07-06	City		AC	No Flow	Dry	No	
OF-8	INSP-282-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-401	INSP-283-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-399	INSP-284-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-400	INSP-285-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-398	INSP-286-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-408	INSP-287-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-397	INSP-288-DRY	Dry	2017-07-06	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-40	INSP-275-DRY	Dry	2017-07-05	City		Ac	Took sample trickling	Trickling	No	
OF-632	INSP-260-DRY	Dry	2017-07-05	City		Ac	Of appears Tobe caved in CB up stream has no flow. No significant illicit discharge	Dry	No	
OF-475	INSP-261-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-476	INSP-262-DRY	Dry	2017-07-05	City		Ac	Of submerged but no flow no sign of illicit discharge	Dry	Yes	3
OF-658	INSP-263-DRY	Dry	2017-07-05	City		Ac	Of covered in thick brush checked CB had no flow therefore OF Has no flow. No indications of illicit discharge.	Dry	No	
OF-486	INSP-264-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-484	INSP-265-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-764	INSP-266-DRY	Dry	2017-07-05	City		Ac	No flow no signs of illicit discharge	Dry	No	
OF-485	INSP-267-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-490	INSP-268-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-491	INSP-269-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-489	INSP-270-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-483	INSP-271-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	

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OF-482	INSP-272-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-481	INSP-273-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-487	INSP-274-DRY	Dry	2017-07-05	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-454	INSP-248-DRY	Dry	2017-06-30	City		Ac mm	Outfall submerged checked catchbasin upstream. No flow	Dry	No	
OF-455	INSP-249-DRY	Dry	2017-06-30	City		Ac mm	No flow. No signs of illicit discharge. No clear view of outfall, but confirmed via other methods.	Dry	No	
OF-653	INSP-250-DRY	Dry	2017-06-30	City		Ac	No flow no sign of illicit discharge. Partially submerged	Dry	No	
OF-453	INSP-251-DRY	Dry	2017-06-30	City		Ac mm	No flow. Checked basin, no sign of illicit discharge.		No	
OF-28	INSP-252-DRY	Dry	2017-06-30	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-27	INSP-253-DRY	Dry	2017-06-30	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-26	INSP-254-DRY	Dry	2017-06-30	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-25	INSP-255-DRY	Dry	2017-06-30	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-24	INSP-256-DRY	Dry	2017-06-30	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-431	INSP-257-DRY	Dry	2017-06-30	City		Ac MM	No flow no sign of illicit discharge	Dry	No	
OF-428	INSP-258-DRY	Dry	2017-06-30	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-427	INSP-259-DRY	Dry	2017-06-30	City		Ac mm	No flow no sign of illicit discharge	Dry	No	
OF-634	INSP-244-DRY	Dry	2017-06-29	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-316	INSP-245-DRY	Dry	2017-06-29			AC	No Flow	Dry	No	
OF-715	INSP-246-DRY	Dry	2017-06-29	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-57	INSP-247-DRY	Dry	2017-06-29	City		AC	no flow no sign of illicit discharge	Dry	No	
OF-396	INSP-41-WET	Wet	2017-06-28	City		Ac		Dry	No	
OF-48	INSP-243-DRY	Dry	2017-06-28	City		Ac	Flow no sign of illicit discharge	Dry	No	
OF-564	INSP-236-DRY	Dry	2017-06-28	City		Ac	No flow no sign of illicit discharge.	Dry	No	
OF-555	INSP-237-DRY	Dry	2017-06-28	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-56	INSP-238-DRY	Dry	2017-06-28	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-54	INSP-239-DRY	Dry	2017-06-28	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-81	INSP-240-DRY	Dry	2017-06-28	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-465	INSP-235-DRY	Dry	2017-06-15	City		AC	No flow no sign of illicit discharge	Dry	No	
OF-15	INSP-233-DRY	Dry	2017-06-13	City		Ac	Flow no sign of illicit discharge	Moderate	No	
OF-630	INSP-231-DRY	Dry	2017-06-13	City		Ac	No flow	Dry	No	
OF-629	INSP-232-DRY	Dry	2017-06-13	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-413	INSP-234-DRY	Dry	2017-06-13	City		Ac	Thick brush covering of no visible or signs of illicit discharge	Dry	No	

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OF-47	INSP-224-DRY	Dry	2017-06-12	City		Ac	Trickling no sign of illicit discharge	Trickling	No	
OF-51	INSP-227-DRY	Dry	2017-06-12	City		Ac	Trickling	Trickling	No	
OF-48	INSP-225-DRY	Dry	2017-06-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-14	INSP-226-DRY	Dry	2017-06-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-50	INSP-228-DRY	Dry	2017-06-12	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-120	INSP-221-DRY	Dry	2017-05-31	City		Ac	Flow no sign of illicit discharge	Moderate	No	
OF-122	INSP-220-DRY	Dry	2017-05-31	City		Ac	No flow	Dry	No	
OF-523	INSP-222-DRY	Dry	2017-05-31	City		Ac	No flow no sign of illicit discharge	Dry	No	
	INSP-223-DRY	Dry	2017-05-31	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-521	INSP-211-DRY	Dry	2017-05-30	City		Ac	No flow no sign of illicit discharge.	Dry	No	
OF-674	INSP-212-DRY	Dry	2017-05-30	City		Ac	Of partially submerged checked upstream CB and there is no flow. No indications of illicit discharge.	Dry	No	
OF-94	INSP-213-DRY	Dry	2017-05-30	City		Ac	Of partially submerged checked upstream MH and there was no flow no signs of illicit discharge,	Dry	No	
OF-311	INSP-214-DRY	Dry	2017-05-30	City		Ac	No flow no sign of illicit discharge.	Dry	No	
OF-93	INSP-215-DRY	Dry	2017-05-30			Ac	No flow no signs of illicit discharge.	Dry	No	
OF-95	INSP-216-DRY	Dry	2017-05-30	City		Ac	No flow no sign of illicit discharge		No	
OF-717	INSP-217-DRY	Dry	2017-05-30	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-106	INSP-218-DRY	Dry	2017-05-30	City		Ac			No	
OF-97	INSP-219-DRY	Dry	2017-05-30	City		Ac	No flow stagnet water	Dry	No	
OF-269	INSP-205-DRY	Dry	2017-05-24	City		Ac	Outlet partially submerged. No flow no sign of illicit discharge.	Dry	No	
OF-270	INSP-206-DRY	Dry	2017-05-24	City		Ac	No flow no sign of illicit discharge.	Dry	No	
OF-271	INSP-207-DRY	Dry	2017-05-24	City		Ac	No flow no sign of illicit discharge.	Dry	No	
OF-756	INSP-208-DRY	Dry	2017-05-24	City		Ac	No flow no sign of illicit discharge.	Dry	No	
OF-275	INSP-209-DRY	Dry	2017-05-24	City		AC	No flow no sign of illicit discharge	Dry	No	
OF-53	INSP-210-DRY	Dry	2017-05-24	City		Ac	Partially submerged however infiltrated from stream. No flow visible. No signs of illicit discharge.	Dry	No	
OF-308	INSP-203-DRY	Dry	2017-05-23	City		Ac	No flow no sign of illicit discharges.	Dry	No	
OF-712	INSP-204-DRY	Dry	2017-05-23	City		Ac	No flow no sign of illicit discharge		No	
OF-469	INSP-191-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-470	INSP-192-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-468	INSP-193-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-471	INSP-194-DRY	Dry	2017-05-18			Ac	Outfall contains water but no apparent flow as well as no sign of illicit discharge.	Dry	No	
OF-478	INSP-195-DRY	Dry	2017-05-18			Ac	No flow no sign of illicit discharge	Dry	No	

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OF-479	INSP-196-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge (couldn't access to take photo saw no flow from other end of culvert)	Dry	No	
OF-656	INSP-197-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-442	INSP-198-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-443	INSP-199-DRY	Dry	2017-05-18	City		Ac	Outfall submerged but appears to have no flow. (man hole and drain up stream also with no flow)		No	
OF-444	INSP-200-DRY	Dry	2017-05-18	City		Ac	Sluiceway no flow	Dry	No	
OF-46	INSP-201-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge	Dry	No	
OF-49	INSP-202-DRY	Dry	2017-05-18	City		Ac	No flow	Dry	No	
OF-757	INSP-230-DRY	Dry	2017-05-18	City		Ac	No flow no sign of illicit discharge		No	
OF-17	INSP-183-DRY	Dry	2017-05-16	City		Ac	OF dumps into culvert checked man hole had no flow, culvert shows no sign of illicit discharge.		No	
OF-422	INSP-184-DRY	Dry	2017-05-16	City		Ac	No flow no signs of ID	Dry	No	
OF-693	INSP-185-DRY	Dry	2017-05-16	City		Ac	No flow no signs of ID		No	
OF-20	INSP-186-DRY	Dry	2017-05-16	City		Ac	No flow	Dry	No	
OF-64	INSP-187-DRY	Dry	2017-05-16	City		Ac	Dumps into culvert pulled manhole cover no flow	Dry	No	
OF-458	INSP-188-DRY	Dry	2017-05-16	City		Ac	Of submerged checked CB up team no flow no sign of ID	Dry	No	
OF-463	INSP-190-DRY	Dry	2017-05-16	City		Ac	No flow	Dry	No	
OF-651	INSP-176-DRY	Dry	2017-04-19	City		Ac	No flow, no sign of illicit discharge.	Dry	No	
OF-650	INSP-177-DRY	Dry	2017-04-19	City		Ac	Out fall burried checked cb was dry no sign of illicit discharges	Dry	No	
OF-649	INSP-178-DRY	Dry	2017-04-19	City		Ac	No flow (water in outfall) checked both catch basin up stream water stagnet. No sign of illicit discharges.	Dry	No	
OF-642	INSP-179-DRY	Dry	2017-04-19	City		Ac	Checked drain no flow of has water from stream		No	
OF-643	INSP-180-DRY	Dry	2017-04-19	City		Ac	No flowering of illicit discharges	Dry	No	
OF-644	INSP-181-DRY	Dry	2017-04-19	City		Ac	No flow, no sign of illicit discharge		No	
OF-379	INSP-182-DRY	Dry	2017-04-19	City		Ac	No flow no sign of illicit discharges	Dry	No	
OF-62	INSP-167-DRY	Dry	2017-04-18	City		Ac	Outfall has water no apparent flow checked mh no flow	Dry	No	
OF-446	INSP-169-DRY	Dry	2017-04-18	City		Ac	Outfall caved in no visible flow, catch basin up line is stagnet		No	
OF-668	INSP-170-DRY	Dry	2017-04-18	City		Ac	Dry no flow	Dry	No	
OF-298	INSP-172-DRY	Dry	2017-04-18	City		Ac	Collapsed CB no flow	Dry	No	
OF-671	INSP-173-DRY	Dry	2017-04-18			Ac	No flow	Dry	No	
OF-666	INSP-174-DRY	Dry	2017-04-18	City		Ac, mm	Outfall is caved in Checked CB-Dry		No	
OF-665	INSP-175-DRY	Dry	2017-04-18	City		Ac, mm	No flow		No	
OF-91	INSP-165-DRY	Dry	2017-04-12	City		Ac, mm		Dry	No	
OF-453	INSP-166-DRY	Dry	2017-04-12			Ac	Outlet submerged no flow in catch basin	Dry	No	

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OF-518	INSP-163-DRY	Dry	2017-04-11	City		Ac		Trickling	No	
OF-519	INSP-164-DRY	Dry	2017-04-11	City		Ac		Trickling	No	
OF-516	INSP-160-DRY	Dry	2017-04-11	City		Ac	No flow full of water checked catch basin no flow. No sign of illicit discharge	Dry	No	
OF-626	INSP-161-DRY	Dry	2017-04-11	City		Ac	Out fall completely submerged catch basin directly up stream is dry	Dry	Yes	1
OF-116	INSP-162-DRY	Dry	2017-04-11			Ac	No flow	Dry	No	
OF-19	INSP-33-WET	Wet	2017-04-05			AC		Dry	No	
OF-621	INSP-34-WET	Wet	2017-04-05	City		Ac		Dry	No	
OF-591	INSP-35-WET	Wet	2017-04-05	City		Ac		Dry	No	
OF-528	INSP-36-WET	Wet	2017-04-05	City		Ac, mm		Dry	No	
OF-529	INSP-37-WET	Wet	2017-04-05			Ac,mm		Dry	No	
OF-430	INSP-38-WET	Wet	2017-04-05	City		Ac		Dry	No	
OF-424	INSP-39-WET	Wet	2017-04-05	City		AC		Dry	No	
OF-425	INSP-40-WET	Wet	2017-04-05	City		Ac		Dry	No	
OF-425	INSP-159-DRY	Dry	2017-04-05	City		Ac	Water flowing into outfall from stream		No	
OF-93	INSP-27-WET	Wet	2017-03-29	City		AC rj		Dry	No	
OF-300	INSP-28-WET	Wet	2017-03-29			Ajc			No	
OF-509	INSP-29-WET	Wet	2017-03-29	City		Ajc		Dry	No	
OF-120	INSP-31-WET	Wet	2017-03-29			Ajc rj		Moderate	No	
OF-122	INSP-32-WET	Wet	2017-03-29	City		Rj, aj			No	
OF-106	INSP-22-WET	Wet	2017-03-28	City		AJC		Dry	No	
OF-43	INSP-26-WET	Wet	2017-03-28			Ajc		Dry	No	
OF-508	INSP-23-WET	Wet	2017-03-28	Consultant		AJC		Moderate	No	
OF-41	INSP-24-WET	Wet	2017-03-28	City		Ajc		Trickling	Yes	3
OF-42	INSP-25-WET	Wet	2017-03-28			Ajc, MM		Trickling	No	
OF-63	INSP-158-DRY	Dry	2017-02-15	City		SC,AC,rj		Dry	No	
OF-754	INSP-157-DRY	Dry	2017-02-02	City		AC, sc		Dry	No	
OF-30	INSP-154-DRY	Dry	2017-02-01	City		Sec,AC,RJ	Outfall covered in rocks, potentially caved in		No	
OF-33	INSP-155-DRY	Dry	2017-02-01	City		SC,AC,rj	Outfall partially submerged checked upstream CB, no flow therefore outfall isn't discharging	Dry	No	
OF-330	INSP-156-DRY	Dry	2017-02-01	City		Sec,rj,ac		Dry	No	
OF-718	INSP-150-DRY	Dry	2016-12-06	City		SC,ac			No	
OF-36	INSP-142-DRY	Dry	2016-08-31	City		Sec		Dry	No	

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OF-35	INSP-143-DRY	Dry	2016-08-31	City		Sec		Dry	No	
OF-731	INSP-144-DRY	Dry	2016-08-31	City		Sec	Standing water only, no flow	Dry	No	
OF-733	INSP-145-DRY	Dry	2016-08-31	City		Sec		Dry	No	
OF-734	INSP-146-DRY	Dry	2016-08-31	City		Sec		Dry	No	
OF-735	INSP-147-DRY	Dry	2016-08-31	City		Sec		Dry	No	
OF-736	INSP-148-DRY	Dry	2016-08-31	City		Sec		Dry	No	
OF-732	INSP-229-DRY	Dry	2016-08-31	City		SEC	Sluice way	Dry	No	
OF-730	INSP-135-DRY	Dry	2016-08-30			Sec	End of pipe broken, segments of pipe broken as well	Dry	No	
OF-593	INSP-136-DRY	Dry	2016-08-30	City		Sec		Dry	No	
OF-594	INSP-137-DRY	Dry	2016-08-30	City		Sec		Dry	No	
OF-565	INSP-138-DRY	Dry	2016-08-30	City		Sec		Dry	No	
OF-424	INSP-139-DRY	Dry	2016-08-30	City		Sec		Dry	No	
OF-425	INSP-140-DRY	Dry	2016-08-30	City		Sec		Dry	No	
OF-429	INSP-141-DRY	Dry	2016-08-30	City		Sec		Dry	No	
OF-407	INSP-134-DRY	Dry	2016-08-25	City		Sec		Trickling	No	
OF-38	INSP-133-DRY	Dry	2016-08-25	City		Sec		Dry	No	
OF-711	INSP-132-DRY	Dry	2016-08-17	City		Sec		Trickling	No	
OF-466	INSP-123-DRY	Dry	2016-08-17	City		Sec,mr,ph		Dry	No	
OF-467	INSP-124-DRY	Dry	2016-08-17	City		Sec,mr,ph	Outfall covered by people dumping grass clippings etc	Dry	No	
OF-464	INSP-125-DRY	Dry	2016-08-17	City		Sec,ph,mr	Standing water only, no flow	Dry	No	
OF-462	INSP-126-DRY	Dry	2016-08-17	City		Sec,mr,ph		Dry	No	
OF-18	INSP-127-DRY	Dry	2016-08-17	City		Sec ,ph,mr		Dry	No	
OF-19	INSP-128-DRY	Dry	2016-08-17	City		Sec,ph,mr		Dry	No	
OF-460	INSP-129-DRY	Dry	2016-08-17			Sec	Outfall covered by leaves and yard debris	Dry	No	
OF-459	INSP-130-DRY	Dry	2016-08-17	City		Sec		Dry	No	
OF-592	INSP-131-DRY	Dry	2016-08-17	City		Sec	Outlet partially submerged. No flow. Checked upstream Cb and DMH	Dry	No	
OF-433	INSP-115-DRY	Dry	2016-08-11			Sec,mr	water infiltrating somewhere between MH1773 and MH1462	Trickling	No	
OF-711	INSP-116-DRY	Dry	2016-08-11	City		Sec		Trickling	No	
OF-42	INSP-112-DRY	Dry	2016-08-11	City		Sec,mr		Dry	No	
OF-41	INSP-113-DRY	Dry	2016-08-11			Sec,mr		Dry	No	
OF-45	INSP-114-DRY	Dry	2016-08-11			Sec,mr	outlet submerged. no flow, confirmed in upstream DMH/CB	Dry	No	

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OF-21	INSP-117-DRY	Dry	2016-08-11	City		Sec		Dry	No	
OF-22	INSP-118-DRY	Dry	2016-08-11	City		Sec		Dry	No	
OF-434	INSP-119-DRY	Dry	2016-08-11	City		Sec		Dry	No	
OF-693	INSP-120-DRY	Dry	2016-08-11	City		Sec		Dry	No	
OF-20	INSP-121-DRY	Dry	2016-08-11	City		Sec		Dry	No	
OF-712	INSP-122-DRY	Dry	2016-08-11	City		Sec	Outfall completely covered by debris	Dry	No	
OF-416	INSP-111-DRY	Dry	2016-08-09	City		Sec	water/outfall had some red/orange staining appears to be iron floc... water appears to simply be groundwater infiltrating pipe, no tests indicates illicit connections or discharges-SC	Trickling	No	
OF-570	INSP-106-DRY	Dry	2016-08-08	City		Sec	water appears to be groundwater infiltrating small portion of pipe on Manomet Road.	Moderate	No	
OF-417	INSP-110-DRY	Dry	2016-08-08			Sec	outfall discharges into culvert. could not obtain a sample directly from OF, sample taken at very end of culvert. The stream was not flowing, the only flow was due to OF discharging therefore sample should be fairly representative of water from OF	Moderate	No	
OF-611	INSP-107-DRY	Dry	2016-08-08	City		Sec,pH,md		Dry	No	
OF-13	INSP-108-DRY	Dry	2016-08-08			Sec,pH,md		Dry	No	
OF-415	INSP-109-DRY	Dry	2016-08-08	City		Sec,pH,md	Outfall inaccessible due to overgrown area full of thorns etc so cannot obtain a photo. Outfall is pipe that leads out of catch basin. Catch basin is dry and pipe is dry (see photo above)	Dry	No	
OF-101	INSP-102-DRY	Dry	2016-08-02	City		Sec,md,Mr	Area is thickly overgrown and in need of trimming. This outfall is just a curb cut that flows under sidewalk.	Dry	No	
OF-139	INSP-103-DRY	Dry	2016-08-02	City		Sec,Mr,md		Dry	No	
OF-718	INSP-104-DRY	Dry	2016-08-02	City		Sec,Mr,md		Dry	No	
OF-330	INSP-105-DRY	Dry	2016-08-02	City		Sec,Mr,md		Dry	No	
OF-184	INSP-101-DRY	Dry	2016-07-25	City		Sec,pH,md	Very overgrown.. The source of flow was determined to be groundwater originating from somewhere under/near 15 Commonwealth Ave. CB 2797 was opened and the source of flow originates from the pipe that has an unknown origination	Trickling	No	
OF-170	INSP-93-DRY	Dry	2016-07-25	City		Sec,pH,md		Dry	No	
OF-163	INSP-94-DRY	Dry	2016-07-25			Sec,pH,md		Dry	No	
OF-171	INSP-95-DRY	Dry	2016-07-25	City		Sec		Dry	No	
OF-173	INSP-96-DRY	Dry	2016-07-25			Sec		Dry	No	
OF-176	INSP-97-DRY	Dry	2016-07-25	City		Sec,pH,md		Dry	No	
OF-178	INSP-98-DRY	Dry	2016-07-25	City		Sec,pH,md.			No	
OF-177	INSP-99-DRY	Dry	2016-07-25	City		Sec,md,ph		Dry	No	
OF-174	INSP-100-DRY	Dry	2016-07-25	City		Sec,pH,md	Very overgrown	Dry	No	
OF-727	INSP-90-DRY	Dry	2016-07-19	City		Sec,ph,md	More than 3/4 submerged however no flow as catch basins upstream of outfall are dry, there's no flow in catch basin/this portion of drainage system,	Dry	No	
OF-728	INSP-91-DRY	Dry	2016-07-19	City		SC MD PH		Dry	No	
OF-729	INSP-92-DRY	Dry	2016-07-19	City		SC Ph MD	1/2 submerged, no flow however, checked catch basin directly upstream and there is no flow in the basin	Dry	No	
OF-596	INSP-88-DRY	Dry	2016-07-18	City		Sec,md,ph	This is pond water that is infiltrating pipe. Dmh typically submerged,this pipe is at water table level	Trickling	No	
OF-493	INSP-89-DRY	Dry	2016-07-18	City		SC MD PH		Dry	No	
	INSP-84-DRY	Dry	2016-07-14			Sec,mr		Dry	No	

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OF-261	INSP-82-DRY	Dry	2016-07-14			Sec,mr	Roof drain	Dry	No	
OF-262	INSP-83-DRY	Dry	2016-07-14	City		Sec,mr		Dry	No	
OF-263	INSP-85-DRY	Dry	2016-07-14			Sec,mr		Dry	No	
OF-254	INSP-86-DRY	Dry	2016-07-14			Sec,mr		Dry	No	
OF-253	INSP-87-DRY	Dry	2016-07-14			Sec,mr		Dry	No	
OF-100	INSP-76-DRY	Dry	2016-07-13			Sec,md,mr		Dry	No	
OF-256	INSP-77-DRY	Dry	2016-07-13			MD SC MR		Dry	No	
OF-99	INSP-74-DRY	Dry	2016-07-13			MR		Dry	No	
OF-98	INSP-75-DRY	Dry	2016-07-13	City		MR SC MD		Dry	No	
OF-598	INSP-78-DRY	Dry	2016-07-13			Sec,mr,md		Dry	No	
OF-257	INSP-79-DRY	Dry	2016-07-13			Sec,md,mr	difficult to see culvert in photo as area is quite overgrown	Dry	No	
OF-597	INSP-80-DRY	Dry	2016-07-13			Sec,mr,md	area is very overgrown and in need of trimming	Dry	No	
OF-258	INSP-81-DRY	Dry	2016-07-13			Sec		Dry	No	
OF-725	INSP-67-DRY	Dry	2016-07-12			Sec,mr		Dry	No	
OF-567	INSP-68-DRY	Dry	2016-07-12			Sec,mr	2nd additional pipe noted ABOVE this outfall. it is approximately a 6" diameter PVC pipe. assuming from roof runoff; need to investigate further	Dry	No	
OF-402	INSP-69-DRY	Dry	2016-07-12			Sec,mr	No flow. Standing water but not flowing, checked upstream basins	Dry	No	
OF-404	INSP-70-DRY	Dry	2016-07-12			SEC, MR	water from receiving water is present as the outlet is at same elevation as pond's water height. there is no flow however, as water is stagnant and there is no flow in catch basin in upper portion of this drainage system	Dry	No	
OF-404	INSP-71-DRY	Dry	2016-07-12			Sec,mr	Standing water due to outfall being at same elevation as receiving water, however there is no flow checked upstream basins	Dry	No	
OF-403	INSP-72-DRY	Dry	2016-07-12			Sec,mr	No flow. Outlet ALMOST fully submerged by receiving water however checked upstream basin and not flowing. All stagnant standing water	Dry	Yes	
OF-409	INSP-73-DRY	Dry	2016-07-12			Sec,mr		Dry	No	
OF-386	INSP-60-DRY	Dry	2016-07-11			Sec		Dry	No	
OF-385	INSP-61-DRY	Dry	2016-07-11			Sec		Dry	No	
OF-384	INSP-62-DRY	Dry	2016-07-11			Sec		Dry	No	
OF-563	INSP-63-DRY	Dry	2016-07-11			Sec	Pipe not visible. Area filled in	Dry	No	
OF-588	INSP-64-DRY	Dry	2016-07-11			Sec		Moderate	Yes	
OF-37	INSP-65-DRY	Dry	2016-07-11			Sec		Dry	No	
OF-724	INSP-66-DRY	Dry	2016-07-11			Sec		Dry	No	
OF-370	INSP-54-DRY	Dry	2016-07-06	City		Sec		Dry	No	
OF-77	INSP-55-DRY	Dry	2016-07-06			Sec		Dry	No	
OF-85	INSP-56-DRY	Dry	2016-07-06			Sec,mr		Dry	No	
OF-86	INSP-57-DRY	Dry	2016-07-06			Sec,mr		Dry	No	

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OF-80	INSP-58-DRY	Dry	2016-07-06			Sec,mr		Dry	No	
OF-78	INSP-59-DRY	Dry	2016-07-06			Sec,mr		Dry	No	
OF-70	INSP-52-DRY	Dry	2016-06-28	City		Sec			No	
OF-259	INSP-53-DRY	Dry	2016-06-28	City		Sec		Dry	No	
OF-562	INSP-50-DRY	Dry	2016-06-27			SC,md		Dry	No	
OF-382	INSP-51-DRY	Dry	2016-06-27			SC,md		Dry	No	
OF-477	INSP-21-WET	Wet	2016-06-08			Sec,mr		Moderate	No	
OF-480	INSP-49-DRY	Dry	2016-06-02	City		Sec	No flow. No indications of illicit discharge	Dry	No	
OF-474	INSP-46-DRY	Dry	2016-06-01	City		Sec	Not flowing but water in pipe and outfall directly next to is flowing	Dry	No	
OF-473	INSP-47-DRY	Dry	2016-06-01	City		Sec		Moderate	No	
OF-488	INSP-43-DRY	Dry	2016-06-01	City		Sec	No flow. No indications of illicit discharge (no staining, sanitary waste etc)	Dry	No	
OF-395	INSP-35-DRY	Dry	2016-05-25	City		Sec	No flow. No indications of a potential illicit discharge. However, does appear that neighbors/ kids may be tossing trash down by outfall.	Dry	No	
OF-396	INSP-36-DRY	Dry	2016-05-25	City		Sec	No flow. Some standing Water in pipe as outlet is below water line in pond.	Dry	No	
OF-569	INSP-37-DRY	Dry	2016-05-25			Sec	No flow. No indications of illicit discharges (staining, solids, etc)	Dry	No	
OF-568	INSP-38-DRY	Dry	2016-05-25	City		Sec	No flow. No indications of illicit discharges (no staining, odor etc)	Dry	No	
OF-3	INSP-39-DRY	Dry	2016-05-25	City		Sec	No flow. No indications of illicit discharge (no staining, excessive vegetation, etc)	Dry	No	
OF-6	INSP-40-DRY	Dry	2016-05-25			Sec	No flow. No indications of illicit discharge (no staining, excessive vegetation, etc)	Dry	No	
OF-410	INSP-41-DRY	Dry	2016-05-25			Sec	No flow. No indications of illicit discharge (no staining, excessive vegetation, etc) outfall/outlet covered in leaves and trees etc. Needs to be cleaned.	Dry	No	
OF-7	INSP-42-DRY	Dry	2016-05-25			Sec	Outfall drops into small stream. Resident stated stream gets a brownish foam at times. Stated rain washed it away yesterday.	Dry	No	
OF-390	INSP-15-WET	Wet	2016-05-24	City		SEC		Dry	No	
OF-391	INSP-16-WET	Wet	2016-05-24			SEC			No	
OF-664	INSP-17-WET	Wet	2016-05-24	City		Sec		Dry	No	
OF-387	INSP-18-WET	Wet	2016-05-24	City		Sec		Dry	No	
OF-2	INSP-19-WET	Wet	2016-05-24	City		Sec		Dry	No	
OF-1	INSP-20-WET	Wet	2016-05-24			Sec		Dry	No	
OF-391	INSP-33-DRY	Dry	2016-05-24	City		Sec	No flow. Outfall is dry. No staining, solids, excessive vegetation ie no indications of illicit discharges	Dry	No	
OF-664	INSP-29-DRY	Dry	2016-05-23	City		SC, PH	Sample taken from stream. Outfall is dry	Trickling	No	
OF-390	INSP-30-DRY	Dry	2016-05-23	City		SEC	No flow. Outflow dry. No excessive vegetation,staining, solids etc to indicate illicit discharges	Dry	No	
OF-2	INSP-31-DRY	Dry	2016-05-23	City		Sec	No flow. No staining, solids, excessive vegetation that indicate an illicit discharge	Dry	No	
OF-1	INSP-32-DRY	Dry	2016-05-23			Sec	Outfall is dry. No indications of illicit discharges (no staining, excessive vegetation, solids etc)	Dry	No	
OF-387	INSP-34-DRY	Dry	2016-05-23	City		Sec	No flow. Outfall is dry. There are no indications of illicit discharges (no excessive vegetation, staining etc)	Dry	No	

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f+A:ASacilityid	insp_id	category	insp_date	insp_by	insp_other	inspector	comments	flow_desc	submerged	ht_abv_out
OF-388	INSP-48-DRY	Dry	2016-05-23			SEC	no flow, no indications of illicit discharge-sec	Dry	No	
OF-392	INSP-19-DRY	Dry	2016-03-14			test			No	
OF-392	INSP-18-DRY	Dry	2016-03-14			test			No	
OF-396	INSP-9-WET	Wet	2016-03-10			SEC		Trickling	No	
OF-513	INSP-11-WET	Wet	2016-03-10			sec		Moderate	No	
OF-420	INSP-20-DRY	Dry	2016-03-08			SEC	outfall was partially submerged and sample was taken from outfall/stream therefore these results may be tainted as receiving water was interfering with sample		No	
OF-418	INSP-21-DRY	Dry	2016-03-08			SEC		Moderate	No	
OF-419	INSP-17-DRY	Dry	2016-03-01	City		SEC, NBA	outlet partially submerged		No	
OF-68	INSP-16-DRY	Dry	2015-12-28			Rgl			No	
OF-722	INSP-13-WET	Wet	2015-12-15	City		sec,rgl			No	
OF-722	INSP-14-WET	Wet	2015-12-15	City		sec,rgl			No	
OF-722	INSP-26-DRY	Dry	2015-12-10	City		sec,rgl	sample taken from downstream of OF, i.e. taken southwest of OF	Trickling	No	
OF-722	INSP-27-DRY	Dry	2015-12-10	City		sec,rgl	sample taken upstream of OF, i.e. northeast of OF	Trickling	No	
OF-722	INSP-28-DRY	Dry	2015-12-10			sec,rgl	sample taken upstream from OF, i.e. northeast of OF	Trickling	No	
OF-96	INSP-7-WET	Wet	2015-12-03			rgl			No	
OF-713	INSP-8-WET	Wet	2015-12-03			rgl			No	
OF-722	INSP-23-DRY	Dry	2015-12-03			SEC, RGL	floatables, sheen, swampy smell, debris, trash *sample taken northeast of OF in stream	Trickling	No	
OF-722	INSP-24-DRY	Dry	2015-12-03	City		SEC, RGL	grayish color, debris, trash		No	
OF-722	INSP-25-DRY	Dry	2015-12-03			sec,rgl	unknown OF behind DPW	Trickling	No	
OF-96	INSP-2-WET	Wet	2015-12-01	Other		NBA, SL, RGL, VP		Trickling	No	
OF-713	INSP-3-WET	Wet	2015-12-01			NBA, SL, RGL, VP		Trickling	No	
OF-139	INSP-5-WET	Wet	2015-12-01			NBA, SL, RGL, VP		Trickling	No	
OF-718	INSP-6-WET	Wet	2015-12-01			NBA, SL, RGL, VP		Moderate	No	
OF-139	INSP-13-DRY	Dry	2015-11-24			Rgl		Trickling	No	
OF-718	INSP-14-DRY	Dry	2015-11-24			Rgl		Trickling	Yes	
OF-68	INSP-11-DRY	Dry	2015-11-19			Sec,rgl		Moderate	No	
OF-139	INSP-12-DRY	Dry	2015-11-19	City		Sec,rgl		Trickling	No	
OF-313	INSP-10-DRY	Dry	2015-11-17	City		Rgl, nba,		Trickling	No	
OF-313	INSP-1-WET	Wet	2015-11-12			AC, RJ, LF, SW,		Trickling	No	
OF-313	INSP-9-DRY	Dry	2015-11-10	City		Vp rgl nba		Trickling	No	
OF-68	INSP-7-DRY	Dry	2015-11-05	City		Df			No	

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f+A:ASacilityid	insp_id	category	insp_date	insp_by	insp_other	inspector	comments	flow_desc	submerged	ht_abv_out
OF-418	INSP-8-DRY	Dry	2015-11-05			SL		Moderate	No	
OF-139	INSP-5-DRY	Dry	2015-11-03	City		NBA,ho,rgl		Trickling	No	
OF-68	INSP-6-DRY	Dry	2015-11-03	City		nbarglho		Moderate	No	
OF-130	INSP-12-WET	Wet	2015-10-29	Other	MyRWA Patrick Herron Technical Memo	PH		Moderate	No	
OF-139	INSP-3-DRY	Dry	2015-10-15	City		RGL, SEC		Trickling	No	
OF-68	INSP-4-DRY	Dry	2015-10-15	City		SEC, RGL		Moderate	No	
OF-313	INSP-2-DRY	Dry	2015-10-08	City		S.W		Moderate	No	

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-96	Color (Water) Floatables Foam	Brown	Light Color in Sample Bottle Color in Outfall Flow			Color	Brown						
OF-131													
OF-130													
OF-696													
OF-511													
OF-512													
OF-234													
OF-235													
OF-515													
OF-742													
OF-740													
OF-254													
OF-98	Algae Floatables Foam					Algae Floatables			Foam Litter	High			
OF-257													
OF-597													
OF-464													
OF-465													
OF-461													
OF-459													
OF-460													
OF-80													
OF-79													
OF-78													
OF-275													
OF-272													
OF-714													
OF-87													
OF-280													
OF-430													
OF-429													
OF-22													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-21													
OF-422													
OF-449													
OF-450													
OF-452													
OF-77													
OF-370													
OF-23													
OF-568													
OF-569													
OF-732													
OF-734													
OF-574													
OF-467													
OF-56						Algea Odor					Musty	Low	
OF-55						Algea Odor					Musty	Low	
OF-54													
OF-625													
OF-625													
OF-517													
OF-518													
OF-728													
OF-729													
OF-598													
OF-101													
OF-94	Algae												
OF-674													
OF-454													
OF-455													
OF-463													
OF-570													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-437													
OF-291													
OF-290													
OF-289													
OF-569													
OF-568													
OF-710													
OF-29													
OF-432													
OF-479													
OF-478													
OF-469													
OF-468													
OF-470													
OF-471													
OF-757													
OF-45													
OF-42													
OF-386													
OF-563													
OF-384													
OF-385													
OF-382													
OF-388													
OF-402													
OF-594													
OF-564													
OF-565													
OF-566													
OF-405													
OF-404													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-395													
OF-9													
OF-567													
OF-38													
OF-50													
OF-51													
OF-14						Floatables			Litter				
OF-91													
OF-92													
OF-789													
OF-116													
OF-626													
OF-231													
OF-230													
OF-93													
OF-456													
OF-104													
OF-368													
OF-300													
OF-236													
OF-4													
OF-3													
OF-6													
OF-410													
OF-7	Odor			Fishy	Low								
OF-8													
OF-561													
OF-349													
OF-576													
OF-575													
OF-77													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-370													
OF-54													
OF-56													
OF-56													
OF-55													
OF-562													
OF-732													
OF-734													
OF-12													
OF-596													
OF-493													
OF-519													
OF-543													
OF-545													
OF-551													
OF-241													
OF-238													
OF-237													
OF-63													
OF-66													
OF-10													
OF-403													
OF-578													
OF-397													
OF-398													
OF-399													
OF-400													
OF-408													
OF-401	Excessive Vegetation												
OF-450													
OF-452													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-449													
OF-379													
OF-353													
OF-660													
OF-521													
OF-122													
OF-712													
OF-124													
OF-125													
OF-312													
OF-379													
OF-574	Color (Water)	Tea											
OF-270													
OF-271													
OF-718													
OF-330													
OF-660													
OF-660													
OF-409													
OF-658													
OF-47													
OF-47													
OF-46													
OF-48													
OF-391													
OF-555													
OF-22													
OF-21													
OF-467													
OF-122													
OF-521													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-753													
OF-107	Pet Waste												
OF-591	Pet Waste												
OF-443													
OF-387													
OF-664													
OF-5													
OF-735													
OF-736													
OF-34													
OF-75													
OF-139													
OF-233													
OF-128													
OF-11													
OF-13													
OF-415													
OF-516													
OF-345													
OF-346													
OF-348													
OF-612													
OF-212													
OF-557													
OF-363													
OF-362													
OF-23													
OF-430													
OF-429													
OF-593													
OF-621													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-418													
OF-433													
OF-41													
OF-308													
OF-508													
OF-509													
OF-705													
OF-582													
OF-705													
OF-717													
OF-205						Algae							
OF-560													
OF-557													
OF-115													
OF-528													
OF-20													
OF-422													
OF-102													
OF-723						Algae							
OF-95													
OF-713						Color	Brown Orange						
OF-40													
OF-37													
OF-631													
OF-35													
OF-82						Algae							
OF-83						Algae							
OF-670													
OF-523													
OF-523	Algae												
OF-120													

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-389													
OF-390	Channelization					Algea							
OF-2													
OF-1													
OF-68													
OF-313	Color (Water) Odor	Brown	Strong Color in Sample Bottle	Rancid/Sour	High	Floatables			Litter				
OF-590		OF-590	OF-590	OF-590		OF-590	OF-590	OF-590	OF-590		OF-590		
OF-55		OF-55	OF-55	OF-55		OF-55	OF-55	OF-55	OF-55		OF-55		
OF-694		OF-694	OF-694	OF-694		OF-694	OF-694	OF-694	OF-694		OF-694		
OF-69		OF-69	OF-69	OF-69		OF-69	OF-69	OF-69	OF-69		OF-69		
OF-663		OF-663	OF-663	OF-663		OF-663	OF-663	OF-663	OF-663		OF-663		
OF-663		OF-663	OF-663	OF-663		OF-663	OF-663	OF-663	OF-663		OF-663		
OF-79		OF-79	OF-79	OF-79		OF-79	OF-79	OF-79	OF-79		OF-79		
OF-272		OF-272	OF-272	OF-272		OF-272	OF-272	OF-272	OF-272		OF-272		
OF-706		OF-706	OF-706	OF-706		OF-706	OF-706	OF-706	OF-706		OF-706		
OF-517		OF-517	OF-517	OF-517		OF-517	OF-517	OF-517	OF-517		OF-517		
OF-710		OF-710	OF-710	OF-710		OF-710	OF-710	OF-710	OF-710		OF-710		
OF-709		OF-709	OF-709	OF-709		OF-709	OF-709	OF-709	OF-709		OF-709		
OF-669		OF-669	OF-669	OF-669		OF-669	OF-669	OF-669	OF-669		OF-669		
OF-708		OF-708	OF-708	OF-708		OF-708	OF-708	OF-708	OF-708		OF-708		
OF-670		OF-670	OF-670	OF-670		OF-670	OF-670	OF-670	OF-670		OF-670		
OF-618		OF-618	OF-618	OF-618		OF-618	OF-618	OF-618	OF-618		OF-618		
OF-528		OF-528	OF-528	OF-528		OF-528	OF-528	OF-528	OF-528		OF-528		
OF-529		OF-529	OF-529	OF-529		OF-529	OF-529	OF-529	OF-529		OF-529		
OF-633		OF-633	OF-633	OF-633		OF-633	OF-633	OF-633	OF-633		OF-633		
OF-373		OF-373	OF-373	OF-373		OF-373	OF-373	OF-373	OF-373		OF-373		
OF-68		OF-68	OF-68	OF-68		OF-68	OF-68	OF-68	OF-68		OF-68		
OF-713		OF-713	OF-713	OF-713		OF-713	OF-713	OF-713	OF-713		OF-713		
OF-96		OF-96	OF-96	OF-96		OF-96	OF-96	OF-96	OF-96		OF-96		
OF-448		OF-448	OF-448	OF-448		OF-448	OF-448	OF-448	OF-448		OF-448		
OF-452		OF-452	OF-452	OF-452		OF-452	OF-452	OF-452	OF-452		OF-452		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-648		OF-648	OF-648	OF-648		OF-648	OF-648	OF-648	OF-648		OF-648		
OF-320		OF-320	OF-320	OF-320		OF-320	OF-320	OF-320	OF-320		OF-320		
OF-288		OF-288	OF-288	OF-288		OF-288	OF-288	OF-288	OF-288		OF-288		
OF-610		OF-610	OF-610	OF-610		OF-610	OF-610	OF-610	OF-610		OF-610		
OF-614		OF-614	OF-614	OF-614		OF-614	OF-614	OF-614	OF-614		OF-614		
OF-71		OF-71	OF-71	OF-71		OF-71	OF-71	OF-71	OF-71		OF-71		
OF-513		OF-513	OF-513	OF-513		OF-513	OF-513	OF-513	OF-513		OF-513		
OF-581		OF-581	OF-581	OF-581		OF-581	OF-581	OF-581	OF-581		OF-581		
OF-546		OF-546	OF-546	OF-546		OF-546	OF-546	OF-546	OF-546		OF-546		
OF-551		OF-551	OF-551	OF-551		OF-551	OF-551	OF-551	OF-551		OF-551		
OF-720		OF-720	OF-720	OF-720		OF-720	OF-720	OF-720	OF-720		OF-720		
OF-332		OF-332	OF-332	OF-332		OF-332	OF-332	OF-332	OF-332		OF-332		
OF-333		OF-333	OF-333	OF-333		OF-333	OF-333	OF-333	OF-333		OF-333		
OF-334		OF-334	OF-334	OF-334		OF-334	OF-334	OF-334	OF-334		OF-334		
OF-198		OF-198	OF-198	OF-198		OF-198	OF-198	OF-198	OF-198		OF-198		
OF-612		OF-612	OF-612	OF-612		OF-612	OF-612	OF-612	OF-612		OF-612		
OF-497		OF-497	OF-497	OF-497		OF-497	OF-497	OF-497	OF-497		OF-497		
OF-449		OF-449	OF-449	OF-449		OF-449	OF-449	OF-449	OF-449		OF-449		
OF-450		OF-450	OF-450	OF-450		OF-450	OF-450	OF-450	OF-450		OF-450		
OF-508	Odor	OF-508	OF-508	OF-508		OF-508	OF-508	OF-508	OF-508		OF-508		
OF-367	Excessive Sediment Sheen - Petroleum	OF-367	OF-367	OF-367		OF-367	OF-367	OF-367	OF-367		OF-367		
OF-349		OF-349	OF-349	OF-349		OF-349	OF-349	OF-349	OF-349		OF-349		
OF-205		OF-205	OF-205	OF-205		OF-205	OF-205	OF-205	OF-205		OF-205		
OF-560		OF-560	OF-560	OF-560		OF-560	OF-560	OF-560	OF-560		OF-560		
OF-702		OF-702	OF-702	OF-702		OF-702	OF-702	OF-702	OF-702		OF-702		
OF-61		OF-61	OF-61	OF-61		OF-61	OF-61	OF-61	OF-61		OF-61		
OF-299		OF-299	OF-299	OF-299		OF-299	OF-299	OF-299	OF-299		OF-299		
OF-301		OF-301	OF-301	OF-301		OF-301	OF-301	OF-301	OF-301		OF-301		
OF-302		OF-302	OF-302	OF-302		OF-302	OF-302	OF-302	OF-302		OF-302		
OF-305		OF-305	OF-305	OF-305		OF-305	OF-305	OF-305	OF-305		OF-305		
OF-304		OF-304	OF-304	OF-304		OF-304	OF-304	OF-304	OF-304		OF-304		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-778		OF-778	OF-778	OF-778		OF-778	OF-778	OF-778	OF-778		OF-778		
OF-82		OF-82	OF-82	OF-82		OF-82	OF-82	OF-82	OF-82		OF-82		
OF-83		OF-83	OF-83	OF-83		OF-83	OF-83	OF-83	OF-83		OF-83		
OF-435		OF-435	OF-435	OF-435		OF-435	OF-435	OF-435	OF-435		OF-435		
OF-578		OF-578	OF-578	OF-578		OF-578	OF-578	OF-578	OF-578		OF-578		
OF-515		OF-515	OF-515	OF-515		OF-515	OF-515	OF-515	OF-515		OF-515		
OF-514		OF-514	OF-514	OF-514		OF-514	OF-514	OF-514	OF-514		OF-514		
OF-119		OF-119	OF-119	OF-119		OF-119	OF-119	OF-119	OF-119		OF-119		
OF-652		OF-652	OF-652	OF-652		OF-652	OF-652	OF-652	OF-652		OF-652		
OF-89		OF-89	OF-89	OF-89		OF-89	OF-89	OF-89	OF-89		OF-89		
OF-90		OF-90	OF-90	OF-90		OF-90	OF-90	OF-90	OF-90		OF-90		
OF-675		OF-675	OF-675	OF-675		OF-675	OF-675	OF-675	OF-675		OF-675		
OF-623		OF-623	OF-623	OF-623		OF-623	OF-623	OF-623	OF-623		OF-623		
OF-726		OF-726	OF-726	OF-726		OF-726	OF-726	OF-726	OF-726		OF-726		
OF-108		OF-108	OF-108	OF-108		OF-108	OF-108	OF-108	OF-108		OF-108		
OF-492		OF-492	OF-492	OF-492		OF-492	OF-492	OF-492	OF-492		OF-492		
OF-102		OF-102	OF-102	OF-102		OF-102	OF-102	OF-102	OF-102		OF-102		
OF-327		OF-327	OF-327	OF-327		OF-327	OF-327	OF-327	OF-327		OF-327		
OF-328		OF-328	OF-328	OF-328		OF-328	OF-328	OF-328	OF-328		OF-328		
OF-329		OF-329	OF-329	OF-329		OF-329	OF-329	OF-329	OF-329		OF-329		
OF-237		OF-237	OF-237	OF-237		OF-237	OF-237	OF-237	OF-237		OF-237		
OF-230		OF-230	OF-230	OF-230		OF-230	OF-230	OF-230	OF-230		OF-230		
OF-124		OF-124	OF-124	OF-124		OF-124	OF-124	OF-124	OF-124		OF-124		
OF-125		OF-125	OF-125	OF-125		OF-125	OF-125	OF-125	OF-125		OF-125		
OF-579		OF-579	OF-579	OF-579		OF-579	OF-579	OF-579	OF-579		OF-579		
OF-509		OF-509	OF-509	OF-509		OF-509	OF-509	OF-509	OF-509		OF-509		
OF-300		OF-300	OF-300	OF-300		OF-300	OF-300	OF-300	OF-300		OF-300		
OF-212		OF-212	OF-212	OF-212		OF-212	OF-212	OF-212	OF-212		OF-212		
OF-60		OF-60	OF-60	OF-60		OF-60	OF-60	OF-60	OF-60		OF-60		
OF-591		OF-591	OF-591	OF-591		OF-591	OF-591	OF-591	OF-591		OF-591		
OF-107		OF-107	OF-107	OF-107		OF-107	OF-107	OF-107	OF-107		OF-107		

City of Woburn
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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-553		OF-553	OF-553	OF-553		OF-553	OF-553	OF-553	OF-553		OF-553		
OF-131		OF-131	OF-131	OF-131		OF-131	OF-131	OF-131	OF-131		OF-131		
OF-130		OF-130	OF-130	OF-130		OF-130	OF-130	OF-130	OF-130		OF-130		
OF-527		OF-527	OF-527	OF-527		OF-527	OF-527	OF-527	OF-527		OF-527		
OF-707		OF-707	OF-707	OF-707		OF-707	OF-707	OF-707	OF-707		OF-707		
OF-769		OF-769	OF-769	OF-769		OF-769	OF-769	OF-769	OF-769		OF-769		
OF-701		OF-701	OF-701	OF-701		OF-701	OF-701	OF-701	OF-701		OF-701		
OF-580		OF-580	OF-580	OF-580		OF-580	OF-580	OF-580	OF-580		OF-580		
OF-740		OF-740	OF-740	OF-740		OF-740	OF-740	OF-740	OF-740		OF-740		
OF-742		OF-742	OF-742	OF-742		OF-742	OF-742	OF-742	OF-742		OF-742		
OF-753		OF-753	OF-753	OF-753		OF-753	OF-753	OF-753	OF-753		OF-753		
OF-522		OF-522	OF-522	OF-522		OF-522	OF-522	OF-522	OF-522		OF-522		
OF-115		OF-115	OF-115	OF-115		OF-115	OF-115	OF-115	OF-115		OF-115		
OF-703		OF-703	OF-703	OF-703		OF-703	OF-703	OF-703	OF-703		OF-703		
OF-278		OF-278	OF-278	OF-278		OF-278	OF-278	OF-278	OF-278		OF-278		
OF-723		OF-723	OF-723	OF-723		OF-723	OF-723	OF-723	OF-723		OF-723		
OF-368		OF-368	OF-368	OF-368		OF-368	OF-368	OF-368	OF-368		OF-368		
OF-363		OF-363	OF-363	OF-363		OF-363	OF-363	OF-363	OF-363		OF-363		
OF-362		OF-362	OF-362	OF-362		OF-362	OF-362	OF-362	OF-362		OF-362		
OF-104		OF-104	OF-104	OF-104		OF-104	OF-104	OF-104	OF-104		OF-104		
OF-691		OF-691	OF-691	OF-691		OF-691	OF-691	OF-691	OF-691		OF-691		
OF-231		OF-231	OF-231	OF-231		OF-231	OF-231	OF-231	OF-231		OF-231		
OF-105		OF-105	OF-105	OF-105		OF-105	OF-105	OF-105	OF-105		OF-105		
OF-461		OF-461	OF-461	OF-461		OF-461	OF-461	OF-461	OF-461		OF-461		
OF-625		OF-625	OF-625	OF-625		OF-625	OF-625	OF-625	OF-625		OF-625		
OF-582		OF-582	OF-582	OF-582		OF-582	OF-582	OF-582	OF-582		OF-582		
OF-172		OF-172	OF-172	OF-172		OF-172	OF-172	OF-172	OF-172		OF-172		
OF-183		OF-183	OF-183	OF-183		OF-183	OF-183	OF-183	OF-183		OF-183		
OF-179		OF-179	OF-179	OF-179		OF-179	OF-179	OF-179	OF-179		OF-179		
OF-180		OF-180	OF-180	OF-180		OF-180	OF-180	OF-180	OF-180		OF-180		
OF-181		OF-181	OF-181	OF-181		OF-181	OF-181	OF-181	OF-181		OF-181		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-182		OF-182	OF-182	OF-182		OF-182	OF-182	OF-182	OF-182		OF-182		
OF-700		OF-700	OF-700	OF-700		OF-700	OF-700	OF-700	OF-700		OF-700		
OF-699		OF-699	OF-699	OF-699		OF-699	OF-699	OF-699	OF-699		OF-699		
OF-699		OF-699	OF-699	OF-699		OF-699	OF-699	OF-699	OF-699		OF-699		
OF-241		OF-241	OF-241	OF-241		OF-241	OF-241	OF-241	OF-241		OF-241		
OF-240		OF-240	OF-240	OF-240		OF-240	OF-240	OF-240	OF-240		OF-240		
OF-239		OF-239	OF-239	OF-239		OF-239	OF-239	OF-239	OF-239		OF-239		
OF-236		OF-236	OF-236	OF-236		OF-236	OF-236	OF-236	OF-236		OF-236		
OF-128		OF-128	OF-128	OF-128		OF-128	OF-128	OF-128	OF-128		OF-128		
OF-238		OF-238	OF-238	OF-238		OF-238	OF-238	OF-238	OF-238		OF-238		
OF-234		OF-234	OF-234	OF-234		OF-234	OF-234	OF-234	OF-234		OF-234		
OF-233		OF-233	OF-233	OF-233		OF-233	OF-233	OF-233	OF-233		OF-233		
OF-228		OF-228	OF-228	OF-228		OF-228	OF-228	OF-228	OF-228		OF-228		
OF-227		OF-227	OF-227	OF-227		OF-227	OF-227	OF-227	OF-227		OF-227		
OF-113		OF-113	OF-113	OF-113		OF-113	OF-113	OF-113	OF-113		OF-113		
OF-114		OF-114	OF-114	OF-114		OF-114	OF-114	OF-114	OF-114		OF-114		
OF-43		OF-43	OF-43	OF-43		OF-43	OF-43	OF-43	OF-43		OF-43		
OF-716		OF-716	OF-716	OF-716		OF-716	OF-716	OF-716	OF-716		OF-716		
OF-265		OF-265	OF-265	OF-265		OF-265	OF-265	OF-265	OF-265		OF-265		
OF-276		OF-276	OF-276	OF-276		OF-276	OF-276	OF-276	OF-276		OF-276		
OF-682		OF-682	OF-682	OF-682		OF-682	OF-682	OF-682	OF-682		OF-682		
OF-683		OF-683	OF-683	OF-683		OF-683	OF-683	OF-683	OF-683		OF-683		
OF-266		OF-266	OF-266	OF-266		OF-266	OF-266	OF-266	OF-266		OF-266		
OF-343		OF-343	OF-343	OF-343		OF-343	OF-343	OF-343	OF-343		OF-343		
OF-347		OF-347	OF-347	OF-347		OF-347	OF-347	OF-347	OF-347		OF-347		
OF-348		OF-348	OF-348	OF-348		OF-348	OF-348	OF-348	OF-348		OF-348		
OF-344		OF-344	OF-344	OF-344		OF-344	OF-344	OF-344	OF-344		OF-344		
OF-346		OF-346	OF-346	OF-346		OF-346	OF-346	OF-346	OF-346		OF-346		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-345		OF-345	OF-345	OF-345		OF-345	OF-345	OF-345	OF-345		OF-345		
OF-436		OF-436	OF-436	OF-436		OF-436	OF-436	OF-436	OF-436		OF-436		
OF-437		OF-437	OF-437	OF-437		OF-437	OF-437	OF-437	OF-437		OF-437		
OF-439		OF-439	OF-439	OF-439		OF-439	OF-439	OF-439	OF-439		OF-439		
OF-631		OF-631	OF-631	OF-631		OF-631	OF-631	OF-631	OF-631		OF-631		
OF-290		OF-290	OF-290	OF-290		OF-290	OF-290	OF-290	OF-290		OF-290		
OF-289		OF-289	OF-289	OF-289		OF-289	OF-289	OF-289	OF-289		OF-289		
OF-291		OF-291	OF-291	OF-291		OF-291	OF-291	OF-291	OF-291		OF-291		
OF-294		OF-294	OF-294	OF-294		OF-294	OF-294	OF-294	OF-294		OF-294		
OF-457		OF-457	OF-457	OF-457		OF-457	OF-457	OF-457	OF-457		OF-457		
OF-66		OF-66	OF-66	OF-66		OF-66	OF-66	OF-66	OF-66		OF-66		
OF-692		OF-692	OF-692	OF-692		OF-692	OF-692	OF-692	OF-692		OF-692		
OF-32		OF-32	OF-32	OF-32		OF-32	OF-32	OF-32	OF-32		OF-32		
OF-31		OF-31	OF-31	OF-31		OF-31	OF-31	OF-31	OF-31		OF-31		
OF-34		OF-34	OF-34	OF-34		OF-34	OF-34	OF-34	OF-34		OF-34		
OF-75		OF-75	OF-75	OF-75		OF-75	OF-75	OF-75	OF-75		OF-75		
OF-697		OF-697	OF-697	OF-697		OF-697	OF-697	OF-697	OF-697		OF-697		
OF-714		OF-714	OF-714	OF-714		OF-714	OF-714	OF-714	OF-714		OF-714		
OF-87		OF-87	OF-87	OF-87		OF-87	OF-87	OF-87	OF-87		OF-87		
OF-59		OF-59	OF-59	OF-59		OF-59	OF-59	OF-59	OF-59		OF-59		
OF-372		OF-372	OF-372	OF-372		OF-372	OF-372	OF-372	OF-372		OF-372		
OF-371		OF-371	OF-371	OF-371		OF-371	OF-371	OF-371	OF-371		OF-371		
OF-315		OF-315	OF-315	OF-315		OF-315	OF-315	OF-315	OF-315		OF-315		
OF-755		OF-755	OF-755	OF-755		OF-755	OF-755	OF-755	OF-755		OF-755		
OF-695		OF-695	OF-695	OF-695		OF-695	OF-695	OF-695	OF-695		OF-695		
OF-314		OF-314	OF-314	OF-314		OF-314	OF-314	OF-314	OF-314		OF-314		
OF-573		OF-573	OF-573	OF-573		OF-573	OF-573	OF-573	OF-573		OF-573		
OF-331		OF-331	OF-331	OF-331		OF-331	OF-331	OF-331	OF-331		OF-331		
OF-609		OF-609	OF-609	OF-609		OF-609	OF-609	OF-609	OF-609		OF-609		
OF-29		OF-29	OF-29	OF-29		OF-29	OF-29	OF-29	OF-29		OF-29		
OF-23		OF-23	OF-23	OF-23		OF-23	OF-23	OF-23	OF-23		OF-23		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
FB-002		FB-002	FB-002	FB-002		FB-002	FB-002	FB-002	FB-002		FB-002		
OF-432		OF-432	OF-432	OF-432		OF-432	OF-432	OF-432	OF-432		OF-432		
OF-418		OF-418	OF-418	OF-418		OF-418	OF-418	OF-418	OF-418		OF-418		
OF-419		OF-419	OF-419	OF-419		OF-419	OF-419	OF-419	OF-419		OF-419		
OF-421		OF-421	OF-421	OF-421		OF-421	OF-421	OF-421	OF-421		OF-421		
OF-621		OF-621	OF-621	OF-621		OF-621	OF-621	OF-621	OF-621		OF-621		
OF-438		OF-438	OF-438	OF-438		OF-438	OF-438	OF-438	OF-438		OF-438		
OF-465		OF-465	OF-465	OF-465		OF-465	OF-465	OF-465	OF-465		OF-465		
OF-659		OF-659	OF-659	OF-659		OF-659	OF-659	OF-659	OF-659		OF-659		
OF-335		OF-335	OF-335	OF-335		OF-335	OF-335	OF-335	OF-335		OF-335		
OF-92		OF-92	OF-92	OF-92		OF-92	OF-92	OF-92	OF-92		OF-92		
OF-704		OF-704	OF-704	OF-704		OF-704	OF-704	OF-704	OF-704		OF-704		
OF-65		OF-65	OF-65	OF-65		OF-65	OF-65	OF-65	OF-65		OF-65		
OF-281		OF-281	OF-281	OF-281		OF-281	OF-281	OF-281	OF-281		OF-281		
OF-354		OF-354	OF-354	OF-354		OF-354	OF-354	OF-354	OF-354		OF-354		
OF-617		OF-617	OF-617	OF-617		OF-617	OF-617	OF-617	OF-617		OF-617		
OF-352		OF-352	OF-352	OF-352		OF-352	OF-352	OF-352	OF-352		OF-352		
OF-366		OF-366	OF-366	OF-366		OF-366	OF-366	OF-366	OF-366		OF-366		
OF-557		OF-557	OF-557	OF-557		OF-557	OF-557	OF-557	OF-557		OF-557		
OF-558		OF-558	OF-558	OF-558		OF-558	OF-558	OF-558	OF-558		OF-558		
OF-654		OF-654	OF-654	OF-654		OF-654	OF-654	OF-654	OF-654		OF-654		
OF-457		OF-457	OF-457	OF-457		OF-457	OF-457	OF-457	OF-457		OF-457		
OF-655		OF-655	OF-655	OF-655		OF-655	OF-655	OF-655	OF-655		OF-655		
OF-456		OF-456	OF-456	OF-456		OF-456	OF-456	OF-456	OF-456		OF-456		
OF-312	Channelization	OF-312	OF-312	OF-312		OF-312	OF-312	OF-312	OF-312		OF-312		
OF-273		OF-273	OF-273	OF-273		OF-273	OF-273	OF-273	OF-273		OF-273		
OF-235		OF-235	OF-235	OF-235		OF-235	OF-235	OF-235	OF-235		OF-235		
OF-759		OF-759	OF-759	OF-759		OF-759	OF-759	OF-759	OF-759		OF-759		
OF-74		OF-74	OF-74	OF-74		OF-74	OF-74	OF-74	OF-74		OF-74		
OF-705	Orange Staining	OF-705	OF-705	OF-705		OF-705	OF-705	OF-705	OF-705		OF-705		
OF-574		OF-574	OF-574	OF-574		OF-574	OF-574	OF-574	OF-574		OF-574		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-67		OF-67	OF-67	OF-67		OF-67	OF-67	OF-67	OF-67		OF-67		
OF-545		OF-545	OF-545	OF-545		OF-545	OF-545	OF-545	OF-545		OF-545		
OF-543		OF-543	OF-543	OF-543		OF-543	OF-543	OF-543	OF-543		OF-543		
OF-285		OF-285	OF-285	OF-285		OF-285	OF-285	OF-285	OF-285		OF-285		
OF-286		OF-286	OF-286	OF-286		OF-286	OF-286	OF-286	OF-286		OF-286		
OF-284		OF-284	OF-284	OF-284		OF-284	OF-284	OF-284	OF-284		OF-284		
OF-576		OF-576	OF-576	OF-576		OF-576	OF-576	OF-576	OF-576		OF-576		
OF-575		OF-575	OF-575	OF-575		OF-575	OF-575	OF-575	OF-575		OF-575		
OF-583		OF-583	OF-583	OF-583		OF-583	OF-583	OF-583	OF-583		OF-583		
OF-660		OF-660	OF-660	OF-660		OF-660	OF-660	OF-660	OF-660		OF-660		
OF-353		OF-353	OF-353	OF-353		OF-353	OF-353	OF-353	OF-353		OF-353		
OF-283		OF-283	OF-283	OF-283		OF-283	OF-283	OF-283	OF-283		OF-283		
OF-280		OF-280	OF-280	OF-280		OF-280	OF-280	OF-280	OF-280		OF-280		
OF-696		OF-696	OF-696	OF-696		OF-696	OF-696	OF-696	OF-696		OF-696		
OF-52		OF-52	OF-52	OF-52		OF-52	OF-52	OF-52	OF-52		OF-52		
OF-39		OF-39	OF-39	OF-39		OF-39	OF-39	OF-39	OF-39		OF-39		
OF-10		OF-10	OF-10	OF-10		OF-10	OF-10	OF-10	OF-10		OF-10		
OF-571		OF-571	OF-571	OF-571		OF-571	OF-571	OF-571	OF-571		OF-571		
OF-572		OF-572	OF-572	OF-572		OF-572	OF-572	OF-572	OF-572		OF-572		
OF-556		OF-556	OF-556	OF-556		OF-556	OF-556	OF-556	OF-556		OF-556		
OF-628		OF-628	OF-628	OF-628		OF-628	OF-628	OF-628	OF-628		OF-628		
OF-627		OF-627	OF-627	OF-627		OF-627	OF-627	OF-627	OF-627		OF-627		
OF-406		OF-406	OF-406	OF-406		OF-406	OF-406	OF-406	OF-406		OF-406		
OF-10		OF-10	OF-10	OF-10		OF-10	OF-10	OF-10	OF-10		OF-10		
OF-11		OF-11	OF-11	OF-11		OF-11	OF-11	OF-11	OF-11		OF-11		
OF-389		OF-389	OF-389	OF-389		OF-389	OF-389	OF-389	OF-389		OF-389		
OF-561	Sheen - Bacterial	OF-561	OF-561	OF-561		OF-561	OF-561	OF-561	OF-561		OF-561		
OF-4		OF-4	OF-4	OF-4		OF-4	OF-4	OF-4	OF-4		OF-4		
OF-9		OF-9	OF-9	OF-9		OF-9	OF-9	OF-9	OF-9		OF-9		
OF-405		OF-405	OF-405	OF-405		OF-405	OF-405	OF-405	OF-405		OF-405		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-566		OF-566	OF-566	OF-566		OF-566	OF-566	OF-566	OF-566		OF-566		
OF-383		OF-383	OF-383	OF-383		OF-383	OF-383	OF-383	OF-383		OF-383		
OF-440		OF-440	OF-440	OF-440		OF-440	OF-440	OF-440	OF-440		OF-440		
OF-441		OF-441	OF-441	OF-441		OF-441	OF-441	OF-441	OF-441		OF-441		
OF-255		OF-255	OF-255	OF-255		OF-255	OF-255	OF-255	OF-255		OF-255		
OF-445		OF-445	OF-445	OF-445		OF-445	OF-445	OF-445	OF-445		OF-445		
OF-411		OF-411	OF-411	OF-411		OF-411	OF-411	OF-411	OF-411		OF-411		
OF-412		OF-412	OF-412	OF-412		OF-412	OF-412	OF-412	OF-412		OF-412		
OF-414		OF-414	OF-414	OF-414		OF-414	OF-414	OF-414	OF-414		OF-414		
OF-5		OF-5	OF-5	OF-5		OF-5	OF-5	OF-5	OF-5		OF-5		
OF-8		OF-8	OF-8	OF-8		OF-8	OF-8	OF-8	OF-8		OF-8		
OF-8		OF-8	OF-8	OF-8		OF-8	OF-8	OF-8	OF-8		OF-8		
OF-401		OF-401	OF-401	OF-401		OF-401	OF-401	OF-401	OF-401		OF-401		
OF-399		OF-399	OF-399	OF-399		OF-399	OF-399	OF-399	OF-399		OF-399		
OF-400		OF-400	OF-400	OF-400		OF-400	OF-400	OF-400	OF-400		OF-400		
OF-398		OF-398	OF-398	OF-398		OF-398	OF-398	OF-398	OF-398		OF-398		
OF-408		OF-408	OF-408	OF-408		OF-408	OF-408	OF-408	OF-408		OF-408		
OF-397		OF-397	OF-397	OF-397		OF-397	OF-397	OF-397	OF-397		OF-397		
OF-40		OF-40	OF-40	OF-40		OF-40	OF-40	OF-40	OF-40		OF-40		
OF-632		OF-632	OF-632	OF-632		OF-632	OF-632	OF-632	OF-632		OF-632		
OF-475		OF-475	OF-475	OF-475		OF-475	OF-475	OF-475	OF-475		OF-475		
OF-476		OF-476	OF-476	OF-476		OF-476	OF-476	OF-476	OF-476		OF-476		
OF-658		OF-658	OF-658	OF-658		OF-658	OF-658	OF-658	OF-658		OF-658		
OF-486		OF-486	OF-486	OF-486		OF-486	OF-486	OF-486	OF-486		OF-486		
OF-484		OF-484	OF-484	OF-484		OF-484	OF-484	OF-484	OF-484		OF-484		
OF-764		OF-764	OF-764	OF-764		OF-764	OF-764	OF-764	OF-764		OF-764		
OF-485		OF-485	OF-485	OF-485		OF-485	OF-485	OF-485	OF-485		OF-485		
OF-490		OF-490	OF-490	OF-490		OF-490	OF-490	OF-490	OF-490		OF-490		
OF-491		OF-491	OF-491	OF-491		OF-491	OF-491	OF-491	OF-491		OF-491		
OF-489		OF-489	OF-489	OF-489		OF-489	OF-489	OF-489	OF-489		OF-489		
OF-483		OF-483	OF-483	OF-483		OF-483	OF-483	OF-483	OF-483		OF-483		

City of Woburn
MS4 Outfall Inspections
October 8, 2019 - August 28, 2019

f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-482		OF-482	OF-482	OF-482		OF-482	OF-482	OF-482	OF-482		OF-482		
OF-481		OF-481	OF-481	OF-481		OF-481	OF-481	OF-481	OF-481		OF-481		
OF-487		OF-487	OF-487	OF-487		OF-487	OF-487	OF-487	OF-487		OF-487		
OF-454		OF-454	OF-454	OF-454		OF-454	OF-454	OF-454	OF-454		OF-454		
OF-455		OF-455	OF-455	OF-455		OF-455	OF-455	OF-455	OF-455		OF-455		
OF-653		OF-653	OF-653	OF-653		OF-653	OF-653	OF-653	OF-653		OF-653		
OF-453		OF-453	OF-453	OF-453		OF-453	OF-453	OF-453	OF-453		OF-453		
OF-28		OF-28	OF-28	OF-28		OF-28	OF-28	OF-28	OF-28		OF-28		
OF-27		OF-27	OF-27	OF-27		OF-27	OF-27	OF-27	OF-27		OF-27		
OF-26		OF-26	OF-26	OF-26		OF-26	OF-26	OF-26	OF-26		OF-26		
OF-25		OF-25	OF-25	OF-25		OF-25	OF-25	OF-25	OF-25		OF-25		
OF-24		OF-24	OF-24	OF-24		OF-24	OF-24	OF-24	OF-24		OF-24		
OF-431		OF-431	OF-431	OF-431		OF-431	OF-431	OF-431	OF-431		OF-431		
OF-428		OF-428	OF-428	OF-428		OF-428	OF-428	OF-428	OF-428		OF-428		
OF-427		OF-427	OF-427	OF-427		OF-427	OF-427	OF-427	OF-427		OF-427		
OF-634		OF-634	OF-634	OF-634		OF-634	OF-634	OF-634	OF-634		OF-634		
OF-316		OF-316	OF-316	OF-316		OF-316	OF-316	OF-316	OF-316		OF-316		
OF-715		OF-715	OF-715	OF-715		OF-715	OF-715	OF-715	OF-715		OF-715		
OF-57		OF-57	OF-57	OF-57		OF-57	OF-57	OF-57	OF-57		OF-57		
OF-396			OF-396			OF-396	OF-396	OF-396	OF-396		OF-396		
OF-48		OF-48	OF-48	OF-48		OF-48	OF-48	OF-48	OF-48		OF-48		
OF-564		OF-564	OF-564	OF-564		OF-564	OF-564	OF-564	OF-564		OF-564		
OF-555		OF-555	OF-555	OF-555		OF-555	OF-555	OF-555	OF-555		OF-555		
OF-56		OF-56	OF-56	OF-56		OF-56	OF-56	OF-56	OF-56		OF-56		
OF-54		OF-54	OF-54	OF-54		OF-54	OF-54	OF-54	OF-54		OF-54		
OF-81		OF-81	OF-81	OF-81		OF-81	OF-81	OF-81	OF-81		OF-81		
OF-465	Channelization	OF-465	OF-465	OF-465		OF-465	OF-465	OF-465	OF-465		OF-465		
OF-15		OF-15	OF-15	OF-15		OF-15	OF-15	OF-15	OF-15		OF-15		
OF-630		OF-630	OF-630	OF-630		OF-630	OF-630	OF-630	OF-630		OF-630		
OF-629		OF-629	OF-629	OF-629		OF-629	OF-629	OF-629	OF-629		OF-629		
OF-413		OF-413	OF-413	OF-413		OF-413	OF-413	OF-413	OF-413		OF-413		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-47		OF-47	OF-47	OF-47		OF-47	OF-47	OF-47	OF-47		OF-47		
OF-51		OF-51	OF-51	OF-51		OF-51	OF-51	OF-51	OF-51		OF-51		
OF-48		OF-48	OF-48	OF-48		OF-48	OF-48	OF-48	OF-48		OF-48		
OF-14		OF-14	OF-14	OF-14		OF-14	OF-14	OF-14	OF-14		OF-14		
OF-50		OF-50	OF-50	OF-50		OF-50	OF-50	OF-50	OF-50		OF-50		
OF-120		OF-120	OF-120	OF-120		OF-120	OF-120	OF-120	OF-120		OF-120		
OF-122		OF-122	OF-122	OF-122		OF-122	OF-122	OF-122	OF-122		OF-122		
OF-523		OF-523	OF-523	OF-523		OF-523	OF-523	OF-523	OF-523		OF-523		
OF-521		OF-521	OF-521	OF-521		OF-521	OF-521	OF-521	OF-521		OF-521		
OF-674		OF-674	OF-674	OF-674		OF-674	OF-674	OF-674	OF-674		OF-674		
OF-94		OF-94	OF-94	OF-94		OF-94	OF-94	OF-94	OF-94		OF-94		
OF-311		OF-311	OF-311	OF-311		OF-311	OF-311	OF-311	OF-311		OF-311		
OF-93		OF-93	OF-93	OF-93		OF-93	OF-93	OF-93	OF-93		OF-93		
OF-95		OF-95	OF-95	OF-95		OF-95	OF-95	OF-95	OF-95		OF-95		
OF-717		OF-717	OF-717	OF-717		OF-717	OF-717	OF-717	OF-717		OF-717		
OF-106		OF-106	OF-106	OF-106		OF-106	OF-106	OF-106	OF-106		OF-106		
OF-97		OF-97	OF-97	OF-97		OF-97	OF-97	OF-97	OF-97		OF-97		
OF-269		OF-269	OF-269	OF-269		OF-269	OF-269	OF-269	OF-269		OF-269		
OF-270	Channelization	OF-270	OF-270	OF-270		OF-270	OF-270	OF-270	OF-270		OF-270		
OF-271		OF-271	OF-271	OF-271		OF-271	OF-271	OF-271	OF-271		OF-271		
OF-756		OF-756	OF-756	OF-756		OF-756	OF-756	OF-756	OF-756		OF-756		
OF-275		OF-275	OF-275	OF-275		OF-275	OF-275	OF-275	OF-275		OF-275		
OF-53		OF-53	OF-53	OF-53		OF-53	OF-53	OF-53	OF-53		OF-53		
OF-308		OF-308	OF-308	OF-308		OF-308	OF-308	OF-308	OF-308		OF-308		
OF-712		OF-712	OF-712	OF-712		OF-712	OF-712	OF-712	OF-712		OF-712		
OF-469		OF-469	OF-469	OF-469		OF-469	OF-469	OF-469	OF-469		OF-469		
OF-470		OF-470	OF-470	OF-470		OF-470	OF-470	OF-470	OF-470		OF-470		
OF-468		OF-468	OF-468	OF-468		OF-468	OF-468	OF-468	OF-468		OF-468		
OF-471		OF-471	OF-471	OF-471		OF-471	OF-471	OF-471	OF-471		OF-471		
OF-478		OF-478	OF-478	OF-478		OF-478	OF-478	OF-478	OF-478		OF-478		

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October 8, 2019 - August 28, 2019

f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-479		OF-479	OF-479	OF-479		OF-479	OF-479	OF-479	OF-479		OF-479		
OF-656		OF-656	OF-656	OF-656		OF-656	OF-656	OF-656	OF-656		OF-656		
OF-442		OF-442	OF-442	OF-442		OF-442	OF-442	OF-442	OF-442		OF-442		
OF-443		OF-443	OF-443	OF-443		OF-443	OF-443	OF-443	OF-443		OF-443		
OF-444		OF-444	OF-444	OF-444		OF-444	OF-444	OF-444	OF-444		OF-444		
OF-46		OF-46	OF-46	OF-46		OF-46	OF-46	OF-46	OF-46		OF-46		
OF-49		OF-49	OF-49	OF-49		OF-49	OF-49	OF-49	OF-49		OF-49		
OF-757		OF-757	OF-757	OF-757		OF-757	OF-757	OF-757	OF-757		OF-757		
OF-17		OF-17	OF-17	OF-17		OF-17	OF-17	OF-17	OF-17		OF-17		
OF-422		OF-422	OF-422	OF-422		OF-422	OF-422	OF-422	OF-422		OF-422		
OF-693		OF-693	OF-693	OF-693		OF-693	OF-693	OF-693	OF-693		OF-693		
OF-20		OF-20	OF-20	OF-20		OF-20	OF-20	OF-20	OF-20		OF-20		
OF-64		OF-64	OF-64	OF-64		OF-64	OF-64	OF-64	OF-64		OF-64		
OF-458		OF-458	OF-458	OF-458		OF-458	OF-458	OF-458	OF-458		OF-458		
OF-463		OF-463	OF-463	OF-463		OF-463	OF-463	OF-463	OF-463		OF-463		
OF-651		OF-651	OF-651	OF-651		OF-651	OF-651	OF-651	OF-651		OF-651		
OF-650		OF-650	OF-650	OF-650		OF-650	OF-650	OF-650	OF-650		OF-650		
OF-649		OF-649	OF-649	OF-649		OF-649	OF-649	OF-649	OF-649		OF-649		
OF-642		OF-642	OF-642	OF-642		OF-642	OF-642	OF-642	OF-642		OF-642		
OF-643	Channelization	OF-643	OF-643	OF-643		OF-643	OF-643	OF-643	OF-643		OF-643		
OF-644	Channelization	OF-644	OF-644	OF-644		OF-644	OF-644	OF-644	OF-644		OF-644		
OF-379		OF-379	OF-379	OF-379		OF-379	OF-379	OF-379	OF-379		OF-379		
OF-62		OF-62	OF-62	OF-62		OF-62	OF-62	OF-62	OF-62		OF-62		
OF-446		OF-446	OF-446	OF-446		OF-446	OF-446	OF-446	OF-446		OF-446		
OF-668		OF-668	OF-668	OF-668		OF-668	OF-668	OF-668	OF-668		OF-668		
OF-298		OF-298	OF-298	OF-298		OF-298	OF-298	OF-298	OF-298		OF-298		
OF-671		OF-671	OF-671	OF-671		OF-671	OF-671	OF-671	OF-671		OF-671		
OF-666		OF-666	OF-666	OF-666		OF-666	OF-666	OF-666	OF-666		OF-666		
OF-665		OF-665	OF-665	OF-665		OF-665	OF-665	OF-665	OF-665		OF-665		
OF-91		OF-91	OF-91	OF-91		OF-91	OF-91	OF-91	OF-91		OF-91		
OF-453		OF-453	OF-453	OF-453		OF-453	OF-453	OF-453	OF-453		OF-453		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-518		OF-518	OF-518	OF-518		OF-518	OF-518	OF-518	OF-518		OF-518		
OF-519		OF-519	OF-519	OF-519		OF-519	OF-519	OF-519	OF-519		OF-519		
OF-516		OF-516	OF-516	OF-516		OF-516	OF-516	OF-516	OF-516		OF-516		
OF-626		OF-626	OF-626	OF-626		OF-626	OF-626	OF-626	OF-626		OF-626		
OF-116		OF-116	OF-116	OF-116		OF-116	OF-116	OF-116	OF-116		OF-116		
OF-19			OF-19			OF-19	OF-19	OF-19	OF-19		OF-19		
OF-621			OF-621			OF-621	OF-621	OF-621	OF-621		OF-621		
OF-591			OF-591			OF-591	OF-591	OF-591	OF-591		OF-591		
OF-528			OF-528			OF-528	OF-528	OF-528	OF-528		OF-528		
OF-529			OF-529			OF-529	OF-529	OF-529	OF-529		OF-529		
OF-430			OF-430			OF-430	OF-430	OF-430	OF-430		OF-430		
OF-424			OF-424			OF-424	OF-424	OF-424	OF-424		OF-424		
OF-425			OF-425			OF-425	OF-425	OF-425	OF-425		OF-425		
OF-425		OF-425	OF-425	OF-425		OF-425	OF-425	OF-425	OF-425		OF-425		
OF-93			OF-93			OF-93	OF-93	OF-93	OF-93		OF-93		
OF-300			OF-300			OF-300	OF-300	OF-300	OF-300		OF-300		
OF-509			OF-509			OF-509	OF-509	OF-509	OF-509		OF-509		
OF-120			OF-120			OF-120	OF-120	OF-120	OF-120		OF-120		
OF-122			OF-122			OF-122	OF-122	OF-122	OF-122		OF-122		
OF-106			OF-106			OF-106	OF-106	OF-106	OF-106		OF-106		
OF-43			OF-43			OF-43	OF-43	OF-43	OF-43		OF-43		
OF-508			OF-508			OF-508	OF-508	OF-508	OF-508		OF-508		
OF-41			OF-41			OF-41	OF-41	OF-41	OF-41		OF-41		
OF-42			OF-42			OF-42	OF-42	OF-42	OF-42		OF-42		
OF-63		OF-63	OF-63	OF-63		OF-63	OF-63	OF-63	OF-63		OF-63		
OF-754	Channelization	OF-754	OF-754	OF-754		OF-754	OF-754	OF-754	OF-754		OF-754		
OF-30		OF-30	OF-30	OF-30		OF-30	OF-30	OF-30	OF-30		OF-30		
OF-33		OF-33	OF-33	OF-33		OF-33	OF-33	OF-33	OF-33		OF-33		
OF-330		OF-330	OF-330	OF-330		OF-330	OF-330	OF-330	OF-330		OF-330		
OF-718		OF-718	OF-718	OF-718		OF-718	OF-718	OF-718	OF-718		OF-718		
OF-36		OF-36	OF-36	OF-36		OF-36	OF-36	OF-36	OF-36		OF-36		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-35		OF-35	OF-35	OF-35		OF-35	OF-35	OF-35	OF-35		OF-35		
OF-731		OF-731	OF-731	OF-731		OF-731	OF-731	OF-731	OF-731		OF-731		
OF-733		OF-733	OF-733	OF-733		OF-733	OF-733	OF-733	OF-733		OF-733		
OF-734		OF-734	OF-734	OF-734		OF-734	OF-734	OF-734	OF-734		OF-734		
OF-735		OF-735	OF-735	OF-735		OF-735	OF-735	OF-735	OF-735		OF-735		
OF-736		OF-736	OF-736	OF-736		OF-736	OF-736	OF-736	OF-736		OF-736		
OF-732		OF-732	OF-732	OF-732		OF-732	OF-732	OF-732	OF-732		OF-732		
OF-730		OF-730	OF-730	OF-730		OF-730	OF-730	OF-730	OF-730		OF-730		
OF-593	Rip Rap	OF-593	OF-593	OF-593		OF-593	OF-593	OF-593	OF-593		OF-593		
OF-594		OF-594	OF-594	OF-594		OF-594	OF-594	OF-594	OF-594		OF-594		
OF-565		OF-565	OF-565	OF-565		OF-565	OF-565	OF-565	OF-565		OF-565		
OF-424		OF-424	OF-424	OF-424		OF-424	OF-424	OF-424	OF-424		OF-424		
OF-425		OF-425	OF-425	OF-425		OF-425	OF-425	OF-425	OF-425		OF-425		
OF-429		OF-429	OF-429	OF-429		OF-429	OF-429	OF-429	OF-429		OF-429		
OF-407		OF-407	OF-407	OF-407		OF-407	OF-407	OF-407	OF-407		OF-407		
OF-38		OF-38	OF-38	OF-38		OF-38	OF-38	OF-38	OF-38		OF-38		
OF-711		OF-711	OF-711	OF-711		OF-711	OF-711	OF-711	OF-711		OF-711		
OF-466		OF-466	OF-466	OF-466		OF-466	OF-466	OF-466	OF-466		OF-466		
OF-467		OF-467	OF-467	OF-467		OF-467	OF-467	OF-467	OF-467		OF-467		
OF-464		OF-464	OF-464	OF-464		OF-464	OF-464	OF-464	OF-464		OF-464		
OF-462		OF-462	OF-462	OF-462		OF-462	OF-462	OF-462	OF-462		OF-462		
OF-18		OF-18	OF-18	OF-18		OF-18	OF-18	OF-18	OF-18		OF-18		
OF-19		OF-19	OF-19	OF-19		OF-19	OF-19	OF-19	OF-19		OF-19		
OF-460		OF-460	OF-460	OF-460		OF-460	OF-460	OF-460	OF-460		OF-460		
OF-459		OF-459	OF-459	OF-459		OF-459	OF-459	OF-459	OF-459		OF-459		
OF-592		OF-592	OF-592	OF-592		OF-592	OF-592	OF-592	OF-592		OF-592		
OF-433		OF-433	OF-433	OF-433		OF-433	OF-433	OF-433	OF-433		OF-433		
OF-711		OF-711	OF-711	OF-711		OF-711	OF-711	OF-711	OF-711		OF-711		
OF-42		OF-42	OF-42	OF-42		OF-42	OF-42	OF-42	OF-42		OF-42		
OF-41		OF-41	OF-41	OF-41		OF-41	OF-41	OF-41	OF-41		OF-41		
OF-45		OF-45	OF-45	OF-45		OF-45	OF-45	OF-45	OF-45		OF-45		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-21		OF-21	OF-21	OF-21		OF-21	OF-21	OF-21	OF-21		OF-21		
OF-22		OF-22	OF-22	OF-22		OF-22	OF-22	OF-22	OF-22		OF-22		
OF-434		OF-434	OF-434	OF-434		OF-434	OF-434	OF-434	OF-434		OF-434		
OF-693		OF-693	OF-693	OF-693		OF-693	OF-693	OF-693	OF-693		OF-693		
OF-20		OF-20	OF-20	OF-20		OF-20	OF-20	OF-20	OF-20		OF-20		
OF-712		OF-712	OF-712	OF-712		OF-712	OF-712	OF-712	OF-712		OF-712		
OF-416	Orange Staining	OF-416	OF-416	OF-416		OF-416	OF-416	OF-416	OF-416		OF-416		
OF-570		OF-570	OF-570	OF-570		OF-570	OF-570	OF-570	OF-570		OF-570		
OF-417		OF-417	OF-417	OF-417		OF-417	OF-417	OF-417	OF-417		OF-417		
OF-611		OF-611	OF-611	OF-611		OF-611	OF-611	OF-611	OF-611		OF-611		
OF-13		OF-13	OF-13	OF-13		OF-13	OF-13	OF-13	OF-13		OF-13		
OF-415		OF-415	OF-415	OF-415		OF-415	OF-415	OF-415	OF-415		OF-415		
OF-101		OF-101	OF-101	OF-101		OF-101	OF-101	OF-101	OF-101		OF-101		
OF-139		OF-139	OF-139	OF-139		OF-139	OF-139	OF-139	OF-139		OF-139		
OF-718		OF-718	OF-718	OF-718		OF-718	OF-718	OF-718	OF-718		OF-718		
OF-330		OF-330	OF-330	OF-330		OF-330	OF-330	OF-330	OF-330		OF-330		
OF-184		OF-184	OF-184	OF-184		OF-184	OF-184	OF-184	OF-184		OF-184		
OF-170		OF-170	OF-170	OF-170		OF-170	OF-170	OF-170	OF-170		OF-170		
OF-163		OF-163	OF-163	OF-163		OF-163	OF-163	OF-163	OF-163		OF-163		
OF-171		OF-171	OF-171	OF-171		OF-171	OF-171	OF-171	OF-171		OF-171		
OF-173		OF-173	OF-173	OF-173		OF-173	OF-173	OF-173	OF-173		OF-173		
OF-176		OF-176	OF-176	OF-176		OF-176	OF-176	OF-176	OF-176		OF-176		
OF-178		OF-178	OF-178	OF-178		OF-178	OF-178	OF-178	OF-178		OF-178		
OF-177		OF-177	OF-177	OF-177		OF-177	OF-177	OF-177	OF-177		OF-177		
OF-174		OF-174	OF-174	OF-174		OF-174	OF-174	OF-174	OF-174		OF-174		
OF-727		OF-727	OF-727	OF-727		OF-727	OF-727	OF-727	OF-727		OF-727		
OF-728		OF-728	OF-728	OF-728		OF-728	OF-728	OF-728	OF-728		OF-728		
OF-729		OF-729	OF-729	OF-729		OF-729	OF-729	OF-729	OF-729		OF-729		
OF-596		OF-596	OF-596	OF-596		OF-596	OF-596	OF-596	OF-596		OF-596		
OF-493		OF-493	OF-493	OF-493		OF-493	OF-493	OF-493	OF-493		OF-493		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-261		OF-261	OF-261	OF-261		OF-261	OF-261	OF-261	OF-261		OF-261		
OF-262		OF-262	OF-262	OF-262		OF-262	OF-262	OF-262	OF-262		OF-262		
OF-263		OF-263	OF-263	OF-263		OF-263	OF-263	OF-263	OF-263		OF-263		
OF-254		OF-254	OF-254	OF-254		OF-254	OF-254	OF-254	OF-254		OF-254		
OF-253		OF-253	OF-253	OF-253		OF-253	OF-253	OF-253	OF-253		OF-253		
OF-100		OF-100	OF-100	OF-100		OF-100	OF-100	OF-100	OF-100		OF-100		
OF-256		OF-256	OF-256	OF-256		OF-256	OF-256	OF-256	OF-256		OF-256		
OF-99		OF-99	OF-99	OF-99		OF-99	OF-99	OF-99	OF-99		OF-99		
OF-98		OF-98	OF-98	OF-98		OF-98	OF-98	OF-98	OF-98		OF-98		
OF-598		OF-598	OF-598	OF-598		OF-598	OF-598	OF-598	OF-598		OF-598		
OF-257	Excessive Vegetation	OF-257	OF-257	OF-257		OF-257	OF-257	OF-257	OF-257		OF-257		
OF-597	Excessive Vegetation	OF-597	OF-597	OF-597		OF-597	OF-597	OF-597	OF-597		OF-597		
OF-258		OF-258	OF-258	OF-258		OF-258	OF-258	OF-258	OF-258		OF-258		
OF-725	Rip Rap	OF-725	OF-725	OF-725		OF-725	OF-725	OF-725	OF-725		OF-725		
OF-567	Rip Rap	OF-567	OF-567	OF-567		OF-567	OF-567	OF-567	OF-567		OF-567		
OF-402		OF-402	OF-402	OF-402		OF-402	OF-402	OF-402	OF-402		OF-402		
OF-404		OF-404	OF-404	OF-404		OF-404	OF-404	OF-404	OF-404		OF-404		
OF-404		OF-404	OF-404	OF-404		OF-404	OF-404	OF-404	OF-404		OF-404		
OF-403		OF-403	OF-403	OF-403		OF-403	OF-403	OF-403	OF-403		OF-403		
OF-409	Rip Rap	OF-409	OF-409	OF-409		OF-409	OF-409	OF-409	OF-409		OF-409		
OF-386		OF-386	OF-386	OF-386		OF-386	OF-386	OF-386	OF-386		OF-386		
OF-385		OF-385	OF-385	OF-385		OF-385	OF-385	OF-385	OF-385		OF-385		
OF-384		OF-384	OF-384	OF-384		OF-384	OF-384	OF-384	OF-384		OF-384		
OF-563		OF-563	OF-563	OF-563		OF-563	OF-563	OF-563	OF-563		OF-563		
OF-588		OF-588	OF-588	OF-588		OF-588	OF-588	OF-588	OF-588		OF-588		
OF-37		OF-37	OF-37	OF-37		OF-37	OF-37	OF-37	OF-37		OF-37		
OF-724		OF-724	OF-724	OF-724		OF-724	OF-724	OF-724	OF-724		OF-724		
OF-370		OF-370	OF-370	OF-370		OF-370	OF-370	OF-370	OF-370		OF-370		
OF-77		OF-77	OF-77	OF-77		OF-77	OF-77	OF-77	OF-77		OF-77		
OF-85		OF-85	OF-85	OF-85		OF-85	OF-85	OF-85	OF-85		OF-85		
OF-86		OF-86	OF-86	OF-86		OF-86	OF-86	OF-86	OF-86		OF-86		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-80		OF-80	OF-80	OF-80		OF-80	OF-80	OF-80	OF-80		OF-80		
OF-78		OF-78	OF-78	OF-78		OF-78	OF-78	OF-78	OF-78		OF-78		
OF-70		OF-70	OF-70	OF-70		OF-70	OF-70	OF-70	OF-70		OF-70		
OF-259		OF-259	OF-259	OF-259		OF-259	OF-259	OF-259	OF-259		OF-259		
OF-562		OF-562	OF-562	OF-562		OF-562	OF-562	OF-562	OF-562		OF-562		
OF-382		OF-382	OF-382	OF-382		OF-382	OF-382	OF-382	OF-382		OF-382		
OF-477			OF-477			OF-477	OF-477	OF-477	OF-477		OF-477		
OF-480		OF-480	OF-480	OF-480		OF-480	OF-480	OF-480	OF-480		OF-480		
OF-474	Excessive Sediment Orange Staining	OF-474	OF-474	OF-474		OF-474	OF-474	OF-474	OF-474		OF-474		
OF-473	Orange Staining Sheen - Petroleum	OF-473	OF-473	OF-473		OF-473	OF-473	OF-473	OF-473		OF-473		
OF-488		OF-488	OF-488	OF-488		OF-488	OF-488	OF-488	OF-488		OF-488		
OF-395		OF-395	OF-395	OF-395		OF-395	OF-395	OF-395	OF-395		OF-395		
OF-396		OF-396	OF-396	OF-396		OF-396	OF-396	OF-396	OF-396		OF-396		
OF-569		OF-569	OF-569	OF-569		OF-569	OF-569	OF-569	OF-569		OF-569		
OF-568		OF-568	OF-568	OF-568		OF-568	OF-568	OF-568	OF-568		OF-568		
OF-3		OF-3	OF-3	OF-3		OF-3	OF-3	OF-3	OF-3		OF-3		
OF-6		OF-6	OF-6	OF-6		OF-6	OF-6	OF-6	OF-6		OF-6		
OF-410		OF-410	OF-410	OF-410		OF-410	OF-410	OF-410	OF-410		OF-410		
OF-7	Foam	OF-7	OF-7	OF-7		OF-7	OF-7	OF-7	OF-7		OF-7		
OF-390			OF-390			OF-390	OF-390	OF-390	OF-390		OF-390		
OF-391			OF-391			OF-391	OF-391	OF-391	OF-391		OF-391		
OF-664			OF-664			OF-664	OF-664	OF-664	OF-664		OF-664		
OF-387			OF-387			OF-387	OF-387	OF-387	OF-387		OF-387		
OF-2			OF-2			OF-2	OF-2	OF-2	OF-2		OF-2		
OF-1			OF-1			OF-1	OF-1	OF-1	OF-1		OF-1		
OF-391		OF-391	OF-391	OF-391		OF-391	OF-391	OF-391	OF-391		OF-391		
OF-664		OF-664	OF-664	OF-664		OF-664	OF-664	OF-664	OF-664		OF-664		
OF-390		OF-390	OF-390	OF-390		OF-390	OF-390	OF-390	OF-390		OF-390		
OF-2		OF-2	OF-2	OF-2		OF-2	OF-2	OF-2	OF-2		OF-2		
OF-1		OF-1	OF-1	OF-1		OF-1	OF-1	OF-1	OF-1		OF-1		
OF-387		OF-387	OF-387	OF-387		OF-387	OF-387	OF-387	OF-387		OF-387		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-388		OF-388	OF-388	OF-388		OF-388	OF-388	OF-388	OF-388		OF-388		
OF-392		OF-392	OF-392	OF-392		OF-392	OF-392	OF-392	OF-392		OF-392		
OF-392	Odor	OF-392	OF-392	OF-392		OF-392	OF-392	OF-392	OF-392		OF-392		
OF-396			OF-396			OF-396	OF-396	OF-396	OF-396		OF-396		
OF-513	Staining		OF-513			OF-513	OF-513	OF-513	OF-513		OF-513		
OF-420		OF-420	OF-420	OF-420		OF-420	OF-420	OF-420	OF-420		OF-420		
OF-418	Foam Sheen - Bacterial	OF-418	OF-418	OF-418		OF-418	OF-418	OF-418	OF-418		OF-418		
OF-419		OF-419	OF-419	OF-419		OF-419	OF-419	OF-419	OF-419		OF-419		
OF-68	Odor	OF-68	OF-68	OF-68		OF-68	OF-68	OF-68	OF-68		OF-68		
OF-722			OF-722			OF-722	OF-722	OF-722	OF-722		OF-722		
OF-722			OF-722			OF-722	OF-722	OF-722	OF-722		OF-722		
OF-722	Sheen - Bacterial	OF-722	OF-722	OF-722		OF-722	OF-722	OF-722	OF-722		OF-722		
OF-722	Sheen - Bacterial	OF-722	OF-722	OF-722		OF-722	OF-722	OF-722	OF-722		OF-722		
OF-722	Sheen - Bacterial	OF-722	OF-722	OF-722		OF-722	OF-722	OF-722	OF-722		OF-722		
OF-96	Oil Sheen Staining		OF-96			OF-96	OF-96	OF-96	OF-96		OF-96		
OF-713			OF-713			OF-713	OF-713	OF-713	OF-713		OF-713		
OF-722	Odor Sheen - Bacterial Sheen - Petroleum Floatables	OF-722	OF-722	OF-722		OF-722	OF-722	OF-722	OF-722		OF-722		
OF-722		OF-722	OF-722	OF-722		OF-722	OF-722	OF-722	OF-722		OF-722		
OF-722	Sheen - Bacterial Floatables	OF-722	OF-722	OF-722		OF-722	OF-722	OF-722	OF-722		OF-722		
OF-96	Color (Water) Odor Floatables Foam Staining	Orange	OF-96	Sewage		OF-96	OF-96	OF-96	OF-96		OF-96		
OF-713	Color (Water) Odor Floatables Foam Staining	Orange	OF-713	Sewage		OF-713	OF-713	OF-713	OF-713		OF-713		
OF-139			OF-139			OF-139	OF-139	OF-139	OF-139		OF-139		
OF-718			OF-718			OF-718	OF-718	OF-718	OF-718		OF-718		
OF-139	Odor Floatables	OF-139	OF-139	OF-139		OF-139	OF-139	OF-139	OF-139		OF-139		
OF-718	Odor Sheen - Bacterial Floatables	OF-718	OF-718	OF-718		OF-718	OF-718	OF-718	OF-718		OF-718		
OF-68	Foam Orange Staining Floatables	OF-68	OF-68	OF-68		OF-68	OF-68	OF-68	OF-68		OF-68		
OF-139	Foam	OF-139	OF-139	OF-139		OF-139	OF-139	OF-139	OF-139		OF-139		
OF-313	Orange Staining Sheen - Petroleum	OF-313	OF-313	OF-313		OF-313	OF-313	OF-313	OF-313		OF-313		
OF-313			OF-313			OF-313	OF-313	OF-313	OF-313		OF-313		
OF-313	Orange Staining Sheen - Petroleum	OF-313	OF-313	OF-313		OF-313	OF-313	OF-313	OF-313		OF-313		
OF-68		OF-68	OF-68	OF-68		OF-68	OF-68	OF-68	OF-68		OF-68		

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f+A:ASacilityid	out_observ	color	color_sev	odor	oder_sev	dns_observ	color2	color_sev2	floatables	flo_sever	odor2	odor_sev2	turbidity
OF-418	Odor Foam Floatables Algae Excessive Vegetation	OF-418	OF-418	OF-418		OF-418	OF-418	OF-418	OF-418		OF-418		
OF-139	Sheen - Petroleum	OF-139	OF-139	OF-139		OF-139	OF-139	OF-139	OF-139		OF-139		
OF-68	Odor Foam Sanitary Waste Orange Staining Sheen - Bacterial Floatables	OF-68	OF-68	OF-68		OF-68	OF-68	OF-68	OF-68		OF-68		
OF-130			OF-130			OF-130	OF-130	OF-130	OF-130		OF-130		
OF-139	Foam	OF-139	OF-139	OF-139		OF-139	OF-139	OF-139	OF-139		OF-139		
OF-68	Odor Foam Orange Staining Sheen - Bacterial Floatables	OF-68	OF-68	OF-68		OF-68	OF-68	OF-68	OF-68		OF-68		
OF-313		OF-313	OF-313	OF-313		OF-313	OF-313	OF-313	OF-313		OF-313		

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-96			Hach Ammonia Test Strips	6.0	4.97	0.0027693338958179998			8.24	71	70	4.12
OF-131						0						
OF-130						0						
OF-696						0						
OF-511						0						
OF-512						0						
OF-234	Outfall completely buried					0						
OF-235						0						
OF-515						0						
OF-742						0						
OF-740						0						
OF-254						0						
OF-98						0						
OF-257						0						
OF-597						0						
OF-464						0						
OF-465						0						
OF-461						0						
OF-459						0						
OF-460						0						
OF-80						0						
OF-79						0						
OF-78						0						
OF-275						0						
OF-272						0						
OF-714						0						
OF-87						0						
OF-280						0						
OF-430						0						
OF-429						0						
OF-22						0						

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-21						0						
OF-422						0						
OF-449						0						
OF-450						0						
OF-452						0						
OF-77						0						
OF-370						0						
OF-23						0						
OF-568						0						
OF-569						0						
OF-732						0						
OF-734	Homeowner claims water pools up on street and does not flow into outfall					0						
OF-574						0						
OF-467						0						
OF-56						0						
OF-55						0						
OF-54						0						
OF-625						0						
OF-625						0						
OF-517						0						
OF-518						0						
OF-728						0						
OF-729						0						
OF-598						0						
OF-101						0						
OF-94						0						
OF-674						0						
OF-454						0						
OF-455						0						
OF-463						0						
OF-570	Homeowner said he consistently cleans dog waste bags out of outfall, as well as other contaminants; also there is iron floc in stream		Hach Ammonia Test Strips	.5	460	0.256739432			8.4	83	73	8.63

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-437						0						
OF-291						0						
OF-290						0						
OF-289						0						
OF-569						0						
OF-568						0						
OF-710						0						
OF-29				.1	809	0.45209685161999996			7.7	72	72	7.77
OF-432						0						
OF-479						0						
OF-478						0						
OF-469						0						
OF-468						0						
OF-470						0						
OF-471						0						
OF-757						0						
OF-45						0						
OF-42						0						
OF-386						0						
OF-563						0						
OF-384						0						
OF-385						0						
OF-382						0						
OF-388						0						
OF-402						0						
OF-594						0						
OF-564						0						
OF-565						0						
OF-566						0						
OF-405						0						
OF-404						0						

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-395						0						
OF-9						0						
OF-567						0						
OF-38				0	855	0.4778826705			7.8	70	71	8.09
OF-50						0						
OF-51				.5	665	0.37143129449999995			8.1	71	69	8.96
OF-14						0						
OF-91						0						
OF-92						0						
OF-789						0						
OF-116						0						
OF-626						0						
OF-231						0						
OF-230						0						
OF-93						0						
OF-456			Hach Ammonia Test Strips	.3	729	0.40727231082			7.01	77	71	7.90
OF-104						0						
OF-368						0						
OF-300						0						
OF-236						0						
OF-4						0						
OF-3						0						
OF-6						0						
OF-410						0						
OF-7						0						
OF-8						0						
OF-561						0						
OF-349						0						
OF-576						0						
OF-575						0						
OF-77						0						

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-370						0						
OF-54						0						
OF-56						0						
OF-56						0						
OF-55						0						
OF-562						0						
OF-732						0						
OF-734						0						
OF-12						0						
OF-596						0						
OF-493						0						
OF-519						0						
OF-543						0						
OF-545						0						
OF-551						0						
OF-241						0						
OF-238						0						
OF-237						0						
OF-63						0						
OF-66						0						
OF-10			Hach Ammonia Test Strips	.25	460	0.256739432			8.3	73	72.9	8.43
OF-403						0						
OF-578						0						
OF-397						0						
OF-398						0						
OF-399						0						
OF-400						0						
OF-408						0						
OF-401						0						
OF-450						0						
OF-452						0						

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-449						0						
OF-379						0						
OF-353						0						
OF-660						0						
OF-521						0						
OF-122						0						
OF-712						0						
OF-124						0						
OF-125						0						
OF-312						0						
OF-379						0						
OF-574						0						
OF-270						0						
OF-271						0						
OF-718						0						
OF-330						0						
OF-660						0						
OF-660						0						
OF-409						0						
OF-658						0						
OF-47						0						
OF-47						0						
OF-46						0						
OF-48						0						
OF-391						0						
OF-555						0						
OF-22						0						
OF-21						0						
OF-467						0						
OF-122						0						
OF-521						0						

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-753						0						
OF-107						0						
OF-591						0						
OF-443						0						
OF-387						0						
OF-664						0						
OF-5						0						
OF-735						0						
OF-736						0						
OF-34						0						
OF-75						0						
OF-139						0						
OF-233						0						
OF-128						0						
OF-11						0						
OF-13						0						
OF-415						0						
OF-516						0						
OF-345			Hach Ammonia Test Strips	0.5	382	0.21314516648	CHEMetrics I-1000		8.5	71	69.8	8.47
OF-346						0						
OF-348						0						
OF-612						0						
OF-212				.5	2.71	0.0015100268350820001			7.94	73	66	9.66
OF-557						0						
OF-363						0						
OF-362						0						
OF-23						0						
OF-430						0						
OF-429						0						
OF-593						0						
OF-621						0						

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-418						0						
OF-433						0						
OF-41						0						
OF-308						0						
OF-508			Hach Ammonia Test Strips	0	632	0.35295723648		Hach 17J to 17N	7.7	60	61.9	8.25
OF-509						0						
OF-705						0						
OF-582						0						
OF-705						0						
OF-717						0						
OF-205						0						
OF-560						0						
OF-557						0						
OF-115						0						
OF-528						0						
OF-20	No flow no sign of illicit discharge.					0						
OF-422				0	676	0.37759029151999995		Hach 17J to 17N	7.02	67	66	7.8
OF-102	No flow no sign of illicit discharge.					0						
OF-723						0						
OF-95						0						
OF-713	Possible iron flock					0						
OF-40			Hach Ammonia Test Strips	.25	914	0.5109682999199999	CHEMetrics I-1000		8.1	63	61	10.56
OF-37						0						
OF-631						0						
OF-35						0						
OF-82						0						
OF-83						0						
OF-670						0						
OF-523						0						
OF-523					2.04	0.001136696406432			8.21	55	59	9.89
OF-120					812	0.45377827487999994	CHEMetrics I-1000		7.5	55	56.7	9.5

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-389						0						
OF-390						0						
OF-2						0						
OF-1						0						
OF-68						0						
OF-313		CHEMetrics V-2000	CHEMetrics K-1410			0						
OF-590												
OF-55												
OF-694												
OF-69												
OF-663												
OF-663												
OF-79												
OF-272												
OF-706												
OF-517												
OF-710												
OF-709												
OF-669												
OF-708												
OF-670												
OF-618												
OF-528												
OF-529												
OF-633												
OF-373												
OF-68					1478	.92	HACH Pocket Pro			68.7		8.53
OF-713												
OF-96												
OF-448												
OF-452												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-648												
OF-320												
OF-288												
OF-610												
OF-614												
OF-71												
OF-513					3.09	2.17	HACH Pocket Pro			76.5		8.09
OF-581												
OF-546												
OF-551												
OF-720												
OF-332												
OF-333												
OF-334												
OF-198												
OF-612												
OF-497												
OF-449												
OF-450												
OF-508		Hach Pocket Colorimeter II		.5	625	.61				68.9		7.33
OF-367				0		939				65.3		8.86
OF-349												
OF-205												
OF-560												
OF-702			Hach Ammonia Test Strips	0.25	1197	.61				68.9		9.0
OF-61												
OF-299												
OF-301												
OF-302												
OF-305												
OF-304												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-778												
OF-82												
OF-83												
OF-435												
OF-578												
OF-515												
OF-514												
OF-119												
OF-652												
OF-89												
OF-90												
OF-675												
OF-623												
OF-726												
OF-108												
OF-492												
OF-102												
OF-327												
OF-328												
OF-329												
OF-237												
OF-230												
OF-124												
OF-125												
OF-579												
OF-509												
OF-300												
OF-212			Hach Ammonia Test Strips	.5	3060	2.58	HACH Pocket Pro			66.9		10.31
OF-60												
OF-591												
OF-107												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-553												
OF-131			Hach Ammonia Test Strips	.5	579	.3	HACH Pocket Pro			70.6		6.09
OF-130												
OF-527												
OF-707												
OF-769												
OF-701												
OF-580												
OF-740												
OF-742												
OF-753												
OF-522												
OF-115												
OF-703												
OF-278												
OF-723												
OF-368												
OF-363												
OF-362												
OF-104												
OF-691												
OF-231												
OF-105												
OF-461												
OF-625												
OF-582												
OF-172												
OF-183												
OF-179												
OF-180												
OF-181												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-182												
OF-700												
OF-699												
OF-699												
OF-241												
OF-240												
OF-239												
OF-236												
OF-128												
OF-238												
OF-234												
OF-233												
OF-228												
OF-227												
OF-113												
OF-114												
OF-43												
OF-716			Hach Ammonia Test Strips	0	1140	.59				65.7		
OF-265												
OF-276												
OF-682												
OF-683												
OF-266												
OF-343												
OF-347												
OF-348												
OF-344												
OF-346												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-345												
OF-436												
OF-437												
OF-439												
OF-631												
OF-290												
OF-289												
OF-291												
OF-294												
OF-457												
OF-66												
OF-692												
OF-32												
OF-31												
OF-34												
OF-75												
OF-697												
OF-714												
OF-87												
OF-59												
OF-372												
OF-371												
OF-315												
OF-755												
OF-695												
OF-314												
OF-573												
OF-331												
OF-609												
OF-29				0	.88	.87	HACH Pocket Pro			76.5		1754
OF-23												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
FB-002												
OF-432												
OF-418												
OF-419												
OF-421												
OF-621												
OF-438												
OF-465												
OF-659												
OF-335												
OF-92												
OF-704												
OF-65			Hach Ammonia Test Strips	1.0	893	.82				72.1		7.73
OF-281												
OF-354												
OF-617												
OF-352												
OF-366												
OF-557												
OF-558												
OF-654												
OF-457												
OF-655												
OF-456												
OF-312												
OF-273												
OF-235												
OF-759												
OF-74												
OF-705			Hach Ammonia Test Strips	.75	999	1.44	HACH Pocket Pro			70.1		7.6
OF-574			Hach Ammonia Test Strips	.1	648	.35	HACH Pocket Pro			71.2		9.1

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-67												
OF-545												
OF-543												
OF-285												
OF-286												
OF-284												
OF-576												
OF-575												
OF-583												
OF-660												
OF-353												
OF-283												
OF-280												
OF-696												
OF-52			Hach Ammonia Test Strips	.5	998	.89				74.3		8.45
OF-39					752	.48	HACH Pocket Pro			71.6		8.73
OF-10			Hach Ammonia Test Strips	0	758	.38	HACH Pocket Pro	Hach pH Test Strips		73.0		8.73
OF-571												
OF-572												
OF-556												
OF-628												
OF-627												
OF-406												
OF-10			Hach Ammonia Test Strips	.5	754	.38	HACH Pocket Pro			67.8		8.83
OF-11												
OF-389												
OF-561												
OF-4												
OF-9												
OF-405												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-566												
OF-383												
OF-440												
OF-441												
OF-255												
OF-445												
OF-411												
OF-412												
OF-414												
OF-5												
OF-8												
OF-8												
OF-401												
OF-399												
OF-400												
OF-398												
OF-408												
OF-397												
OF-40			Hach Ammonia Test Strips	.5	641	1.09				73.6		9.0
OF-632												
OF-475												
OF-476												
OF-658												
OF-486												
OF-484												
OF-764												
OF-485												
OF-490												
OF-491												
OF-489												
OF-483												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-482												
OF-481												
OF-487												
OF-454												
OF-455												
OF-653												
OF-453												
OF-28												
OF-27												
OF-26												
OF-25												
OF-24												
OF-431												
OF-428												
OF-427												
OF-634												
OF-316												
OF-715												
OF-57												
OF-396			Hach Ammonia Test Strips	.5	900					42.6		11.24
OF-48					899	.7	HACH Pocket Pro			72.9		8.98
OF-564												
OF-555												
OF-56												
OF-54												
OF-81												
OF-465												
OF-15			Hach Ammonia Test Strips	.5	332					56.5		8.69
OF-630												
OF-629												
OF-413												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-47			Hach Ammonia Test Strips	0	500					65.1		8.1
OF-51			Hach Ammonia Test Strips	.5	875					58.3		9.21
OF-48												
OF-14												
OF-50												
OF-120			Hach Ammonia Test Strips	.25	1202					56.3		8.9
OF-122												
OF-523												
OF-521												
OF-674												
OF-94												
OF-311												
OF-93												
OF-95												
OF-717												
OF-106												
OF-97												
OF-269												
OF-270												
OF-271												
OF-756												
OF-275												
OF-53												
OF-308												
OF-712												
OF-469												
OF-470												
OF-468												
OF-471												
OF-478												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-479												
OF-656												
OF-442												
OF-443												
OF-444												
OF-46												
OF-49												
OF-757												
OF-17												
OF-422												
OF-693												
OF-20												
OF-64												
OF-458												
OF-463												
OF-651												
OF-650												
OF-649												
OF-642												
OF-643												
OF-644												
OF-379												
OF-62												
OF-446												
OF-668												
OF-298												
OF-671												
OF-666												
OF-665												
OF-91												
OF-453												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-518			Hach Ammonia Test Strips	0	1394					48.2		8.24
OF-519			Hach Ammonia Test Strips	0.25	1330					49.3		7.89
OF-516												
OF-626												
OF-116												
OF-19												
OF-621												
OF-591												
OF-528												
OF-529												
OF-430												
OF-424												
OF-425												
OF-425												
OF-93												
OF-300												
OF-509												
OF-120			Hach Ammonia Test Strips	.25	2.35					48.2		10.25
OF-122			Hach Ammonia Test Strips	0	9.30					43.9		10.90
OF-106												
OF-43												
OF-508			Hach Ammonia Test Strips	.5	904					46		10.33
OF-41			Hach Ammonia Test Strips	.25	808					45.3		11.83
OF-42				.25						45.9		
OF-63												
OF-754												
OF-30												
OF-33												
OF-330												
OF-718												
OF-36												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-35												
OF-731												
OF-733												
OF-734												
OF-735												
OF-736												
OF-732												
OF-730												
OF-593												
OF-594												
OF-565												
OF-424												
OF-425												
OF-429												
OF-407				0.2	780 mu					73		7.05
OF-38												
OF-711			CHEMetrics K-1510 (series)	0.50	692 mu/cm					73.4		7.84
OF-466												
OF-467												
OF-464												
OF-462												
OF-18												
OF-19												
OF-460												
OF-459												
OF-592												
OF-433				0	889 mu					66.9		5.99
OF-711				0	807 mu					72.7		7.21
OF-42												
OF-41												
OF-45												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-21												
OF-22												
OF-434												
OF-693												
OF-20												
OF-712												
OF-416				0.75	991 mu					62.8		6.17
OF-570				0	663					67.3		9.20
OF-417				0	836					69.3		8.38
OF-611												
OF-13												
OF-415												
OF-101												
OF-139												
OF-718												
OF-330												
OF-184				0.25	2.53					71.6		8.6
OF-170												
OF-163												
OF-171												
OF-173												
OF-176												
OF-178												
OF-177												
OF-174												
OF-727												
OF-728												
OF-729												
OF-596				0.5	952					72.5		6.42
OF-493												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-261												
OF-262												
OF-263												
OF-254												
OF-253												
OF-100												
OF-256												
OF-99												
OF-98												
OF-598												
OF-257												
OF-597												
OF-258												
OF-725												
OF-567												
OF-402												
OF-404												
OF-404												
OF-403												
OF-409												
OF-386												
OF-385												
OF-384												
OF-563												
OF-588												
OF-37												
OF-724												
OF-370												
OF-77												
OF-85												
OF-86												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-80												
OF-78												
OF-70												
OF-259												
OF-562												
OF-382												
OF-477			Hach Ammonia Test Strips	0.25	1089			Hach pH Test Strips		61		0.42
OF-480												
OF-474			Hach Ammonia Test Strips	0.25	1,144			Hach pH Test Strips		65.8		4.86
OF-473					1140					66.2		2.78
OF-488												
OF-395												
OF-396												
OF-569												
OF-568												
OF-3												
OF-6												
OF-410												
OF-7												
OF-390												
OF-391												
OF-664												
OF-387												
OF-2												
OF-1												
OF-391												
OF-664			Hach Ammonia Test Strips	.2	482			Hach pH Test Strips		59		7.53
OF-390												
OF-2												
OF-1												
OF-387												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-388												
OF-392												
OF-392												
OF-396			Hach Ammonia Test Strips	1						55.9		8.58
OF-513			Hach Ammonia Test Strips	0.75						54.7		8.9
OF-420			Hach Ammonia Test Strips	0.25						51.8		8.69
OF-418			Hach Ammonia Test Strips	0	975					45.1		9.20
OF-419			Hach Ammonia Test Strips	0	0.09					48.6		9.95
OF-68												
OF-722			Hach Ammonia Test Strips	0.30	1569 mu-s/cm					51.3		1.61
OF-722			Hach Ammonia Test Strips	0.5	1472 mu-s/cm					52.0		0.09
OF-722			Hach Ammonia Test Strips	3	4.16 ms/cm					47.1		8.31
OF-722			Hach Ammonia Test Strips	2	4.32 ms/cm					46.4		10.28
OF-722			Hach Ammonia Test Strips	1.5	4.74 ms/cm					46.4		0.91
OF-96		Hach Pocket Colorimeter II	Hach Ammonia Test Strips	.75								4.58
OF-713			Hach Ammonia Test Strips	.75								5.22
OF-722			Hach Ammonia Test Strips	0.5	2.57 ms/cm					46.2		9.57
OF-722			Hach Ammonia Test Strips	1.0	10.1 ms/cm					46.4		2
OF-722		Hach Pocket Colorimeter II	Hach Ammonia Test Strips	0								
OF-96			Hach Ammonia Test Strips	0.75						39.3		3.67
OF-713		Hach Pocket Colorimeter II		0.75	1296					55.6		5.33
OF-139			Hach Ammonia Test Strips	0	1209					49.3		9.34
OF-718		Hach Pocket Colorimeter II	Hach Ammonia Test Strips	0	1115					54.9		6.31
OF-139			Hach Ammonia Test Strips	0	1161					47.7		7.48
OF-718			Hach Ammonia Test Strips	0	1112					55.4		6.39
OF-68			Hach Ammonia Test Strips	0.25	1571					54.1		10.45
OF-139			Hach Ammonia Test Strips	0	1287					52.7		8.47
OF-313			Hach Ammonia Test Strips	.2	752					57.6		6.51
OF-313			Hach Ammonia Test Strips	.25	1383					57.7		6.13
OF-313			Hach Ammonia Test Strips	.25	1417							
OF-68												

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f+A:ASacilityid	oth_observ	ammoni_fti	ammoni_ftk	am_result1	spec_cond	salinity	ph_fti	ph_ftk	ph_result	airtemp	watertemp	do_result
OF-418												
OF-139			Hach Ammonia Test Strips	0	962							
OF-68			Hach Ammonia Test Strips	.5	1557							
OF-130												
OF-139			Hach Ammonia Test Strips	.5	1536							
OF-68			Hach Ammonia Test Strips	0.75	1536							
OF-313			Hach Ammonia Test Strips	0.5								

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-96		.12	.36	0.24				0			
OF-131				0				0			
OF-130				0				0			
OF-696				0				0			
OF-511				0				0			
OF-512				0				0			
OF-234				0				0			
OF-235				0				0			
OF-515				0				0			
OF-742				0				0			
OF-740				0				0			
OF-254				0				0			
OF-98				0				0			
OF-257				0				0			
OF-597				0				0			
OF-464				0				0			
OF-465				0				0			
OF-461				0				0			
OF-459				0				0			
OF-460				0				0			
OF-80				0				0			
OF-79				0				0			
OF-78				0				0			
OF-275				0				0			
OF-272				0				0			
OF-714				0				0			
OF-87				0				0			
OF-280				0				0			
OF-430				0				0			
OF-429				0				0			
OF-22				0				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-21				0				0			
OF-422				0				0			
OF-449				0				0			
OF-450				0				0			
OF-452				0				0			
OF-77				0				0			
OF-370				0				0			
OF-23				0				0			
OF-568				0				0			
OF-569				0				0			
OF-732				0				0			
OF-734				0				0			
OF-574				0				0			
OF-467				0				0			
OF-56				0				0			
OF-55				0				0			
OF-54				0				0			
OF-625				0				0			
OF-625				0				0			
OF-517				0				0			
OF-518				0				0			
OF-728				0				0			
OF-729				0				0			
OF-598				0				0			
OF-101				0				0			
OF-94				0				0			
OF-674				0				0			
OF-454				0				0			
OF-455				0				0			
OF-463				0				0			
OF-570		0.0	0.03	0.03				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-437				0				0			
OF-291				0				0			
OF-290				0				0			
OF-289				0				0			
OF-569				0				0			
OF-568				0				0			
OF-710				0				0			
OF-29		.05	.09	0.03999999999999994				0			
OF-432				0				0			
OF-479				0				0			
OF-478				0				0			
OF-469				0				0			
OF-468				0				0			
OF-470				0				0			
OF-471				0				0			
OF-757				0				0			
OF-45				0				0			
OF-42				0				0			
OF-386				0				0			
OF-563				0				0			
OF-384				0				0			
OF-385				0				0			
OF-382				0				0			
OF-388				0				0			
OF-402				0				0			
OF-594				0				0			
OF-564				0				0			
OF-565				0				0			
OF-566				0				0			
OF-405				0				0			
OF-404				0				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-395				0				0			
OF-9				0				0			
OF-567				0				0			
OF-38				0		.13	0	-0.13			
OF-50				0				0			
OF-51		.14	.19	0.0499999999999999				0			
OF-14				0				0			
OF-91				0				0			
OF-92				0				0			
OF-789				0				0			
OF-116				0				0			
OF-626				0				0			
OF-231				0				0			
OF-230				0				0			
OF-93				0				0			
OF-456				0		.24	.36	0.12			
OF-104				0				0			
OF-368				0				0			
OF-300				0				0			
OF-236				0				0			
OF-4				0				0			
OF-3				0				0			
OF-6				0				0			
OF-410				0				0			
OF-7				0				0			
OF-8				0				0			
OF-561				0				0			
OF-349				0				0			
OF-576				0				0			
OF-575				0				0			
OF-77				0				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-370				0				0			
OF-54				0				0			
OF-56				0				0			
OF-56				0				0			
OF-55				0				0			
OF-562				0				0			
OF-732				0				0			
OF-734				0				0			
OF-12				0				0			
OF-596				0				0			
OF-493				0				0			
OF-519				0				0			
OF-543				0				0			
OF-545				0				0			
OF-551				0				0			
OF-241				0				0			
OF-238				0				0			
OF-237				0				0			
OF-63				0				0			
OF-66				0				0			
OF-10		.04	.16	0.12				0			
OF-403				0				0			
OF-578				0				0			
OF-397				0				0			
OF-398				0				0			
OF-399				0				0			
OF-400				0				0			
OF-408				0				0			
OF-401				0				0			
OF-450				0				0			
OF-452				0				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-449				0				0			
OF-379				0				0			
OF-353				0				0			
OF-660				0				0			
OF-521				0				0			
OF-122				0				0			
OF-712				0				0			
OF-124				0				0			
OF-125				0				0			
OF-312				0				0			
OF-379				0				0			
OF-574				0				0			
OF-270				0				0			
OF-271				0				0			
OF-718				0				0			
OF-330				0				0			
OF-660				0				0			
OF-660				0				0			
OF-409				0				0			
OF-658				0				0			
OF-47				0				0			
OF-47				0				0			
OF-46				0				0			
OF-48				0				0			
OF-391				0				0			
OF-555				0				0			
OF-22				0				0			
OF-21				0				0			
OF-467				0				0			
OF-122				0				0			
OF-521				0				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-753				0				0			
OF-107				0				0			
OF-591				0				0			
OF-443				0				0			
OF-387				0				0			
OF-664				0				0			
OF-5				0				0			
OF-735				0				0			
OF-736				0				0			
OF-34				0				0			
OF-75				0				0			
OF-139				0				0			
OF-233				0				0			
OF-128				0				0			
OF-11				0				0			
OF-13				0				0			
OF-415				0				0			
OF-516				0				0			
OF-345	CHEMetrics K-2513	0	0	0	CHEMetrics K-2513			0			
OF-346				0				0			
OF-348				0				0			
OF-612				0				0			
OF-212		0	0	0				0			
OF-557				0				0			
OF-363				0				0			
OF-362				0				0			
OF-23				0				0			
OF-430				0				0			
OF-429				0				0			
OF-593				0				0			
OF-621				0				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-418				0				0			
OF-433				0				0			
OF-41				0				0			
OF-308				0				0			
OF-508		0.0	0.0	0				0			
OF-509				0				0			
OF-705				0				0			
OF-582				0				0			
OF-705				0				0			
OF-717				0				0			
OF-205				0				0			
OF-560				0				0			
OF-557				0				0			
OF-115				0				0			
OF-528				0				0			
OF-20				0				0			
OF-422		0	0	0				0			
OF-102				0				0			
OF-723				0				0			
OF-95				0				0			
OF-713				0				0			
OF-40	CHEMetrics K-2513	0.18	0	-0.18				0			
OF-37				0				0			
OF-631				0				0			
OF-35				0				0			
OF-82				0				0			
OF-83				0				0			
OF-670				0				0			
OF-523				0				0			
OF-523		.03	0	-0.03				0			
OF-120	CHEMetrics K-2513	0	0	0				0			

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-389				0				0			
OF-390				0				0			
OF-2				0				0			
OF-1				0				0			
OF-68	CHEMetrics K-2513	0	0	0				0			
OF-313				0				0			
OF-590											
OF-55											
OF-694											
OF-69											
OF-663											
OF-663											
OF-79											
OF-272											
OF-706											
OF-517											
OF-710											
OF-709											
OF-669											
OF-708											
OF-670											
OF-618											
OF-528											
OF-529											
OF-633											
OF-373											
OF-68											
OF-713											
OF-96											
OF-448											
OF-452											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-648											
OF-320											
OF-288											
OF-610											
OF-614											
OF-71											
OF-513											
OF-581											
OF-546											
OF-551											
OF-720											
OF-332											
OF-333											
OF-334											
OF-198											
OF-612											
OF-497											
OF-449											
OF-450											
OF-508											
OF-367											
OF-349											
OF-205											
OF-560											
OF-702											
OF-61											
OF-299											
OF-301											
OF-302											
OF-305											
OF-304											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-778											
OF-82											
OF-83											
OF-435											
OF-578											
OF-515											
OF-514											
OF-119											
OF-652											
OF-89											
OF-90											
OF-675											
OF-623											
OF-726											
OF-108											
OF-492											
OF-102											
OF-327											
OF-328											
OF-329											
OF-237											
OF-230											
OF-124											
OF-125											
OF-579											
OF-509											
OF-300											
OF-212											
OF-60											
OF-591											
OF-107											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-553											
OF-131											
OF-130											
OF-527											
OF-707											
OF-769											
OF-701											
OF-580											
OF-740											
OF-742											
OF-753											
OF-522											
OF-115											
OF-703											
OF-278											
OF-723											
OF-368											
OF-363											
OF-362											
OF-104											
OF-691											
OF-231											
OF-105											
OF-461											
OF-625											
OF-582											
OF-172											
OF-183											
OF-179											
OF-180											
OF-181											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-182											
OF-700											
OF-699											
OF-699											
OF-241											
OF-240											
OF-239											
OF-236											
OF-128											
OF-238											
OF-234											
OF-233											
OF-228											
OF-227											
OF-113											
OF-114											
OF-43											
OF-716											
OF-265											
OF-276											
OF-682											
OF-683											
OF-266											
OF-343											
OF-347											
OF-348											
OF-344											
OF-346											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-345											
OF-436											
OF-437											
OF-439											
OF-631											
OF-290											
OF-289											
OF-291											
OF-294											
OF-457											
OF-66											
OF-692											
OF-32											
OF-31											
OF-34											
OF-75											
OF-697											
OF-714											
OF-87											
OF-59											
OF-372											
OF-371											
OF-315											
OF-755											
OF-695											
OF-314											
OF-573											
OF-331											
OF-609											
OF-29											
OF-23											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
FB-002											
OF-432											
OF-418											
OF-419											
OF-421											
OF-621											
OF-438											
OF-465											
OF-659											
OF-335											
OF-92											
OF-704											
OF-65											
OF-281											
OF-354											
OF-617											
OF-352											
OF-366											
OF-557											
OF-558											
OF-654											
OF-457											
OF-655											
OF-456											
OF-312											
OF-273											
OF-235											
OF-759											
OF-74											
OF-705											
OF-574											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-67											
OF-545											
OF-543											
OF-285											
OF-286											
OF-284											
OF-576											
OF-575											
OF-583											
OF-660											
OF-353											
OF-283											
OF-280											
OF-696											
OF-52											
OF-39											
OF-10											
OF-571											
OF-572											
OF-556											
OF-628											
OF-627											
OF-406											
OF-10											
OF-11											
OF-389											
OF-561											
OF-4											
OF-9											
OF-405											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-566											
OF-383											
OF-440											
OF-441											
OF-255											
OF-445											
OF-411											
OF-412											
OF-414											
OF-5											
OF-8											
OF-8											
OF-401											
OF-399											
OF-400											
OF-398											
OF-408											
OF-397											
OF-40											
OF-632											
OF-475											
OF-476											
OF-658											
OF-486											
OF-484											
OF-764											
OF-485											
OF-490											
OF-491											
OF-489											
OF-483											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-482											
OF-481											
OF-487											
OF-454											
OF-455											
OF-653											
OF-453											
OF-28											
OF-27											
OF-26											
OF-25											
OF-24											
OF-431											
OF-428											
OF-427											
OF-634											
OF-316											
OF-715											
OF-57											
OF-396									No flow no sign of illicit discharge.		
OF-48											
OF-564											
OF-555											
OF-56											
OF-54											
OF-81											
OF-465											
OF-15											
OF-630											
OF-629											
OF-413											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-47											
OF-51											
OF-48											
OF-14											
OF-50											
OF-120											
OF-122											
OF-523											
OF-521											
OF-674											
OF-94											
OF-311											
OF-93											
OF-95											
OF-717											
OF-106											
OF-97										Ditch Work Remove Trash or Debris Blocked Pipe	
OF-269											
OF-270											
OF-271											
OF-756											
OF-275											
OF-53											
OF-308											
OF-712											
OF-469											
OF-470											
OF-468											
OF-471											
OF-478											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-479											
OF-656											
OF-442											
OF-443											
OF-444											
OF-46											
OF-49											
OF-757											
OF-17											
OF-422											
OF-693											
OF-20											
OF-64											
OF-458											
OF-463											
OF-651											
OF-650											
OF-649											
OF-642											
OF-643											
OF-644											
OF-379											
OF-62											
OF-446											
OF-668											
OF-298											
OF-671											
OF-666											
OF-665											
OF-91											
OF-453											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-518											
OF-519											
OF-516											
OF-626											
OF-116											
OF-19											
OF-621									Stagnet water no flow		
OF-591									Crushed in checked cb upstream no visible flow		
OF-528									Stagnet water noflow		
OF-529									No flow		
OF-430											
OF-424									No flow		
OF-425									Noflow out of OF		
OF-425											
OF-93											
OF-300											
OF-509											
OF-120											
OF-122											
OF-106											
OF-43											
OF-508											
OF-41											
OF-42											
OF-63											
OF-754											
OF-30											
OF-33											
OF-330											
OF-718											
OF-36											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-35											
OF-731											
OF-733											
OF-734											
OF-735											
OF-736											
OF-732											
OF-730											
OF-593											
OF-594											
OF-565											
OF-424											
OF-425											
OF-429											
OF-407											
OF-38											
OF-711											
OF-466											
OF-467											
OF-464											
OF-462											
OF-18											
OF-19											
OF-460											
OF-459											
OF-592											
OF-433											
OF-711											
OF-42											
OF-41											
OF-45											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-21											
OF-22											
OF-434											
OF-693											
OF-20											
OF-712										Remove Trash or Debris	
OF-416											
OF-570											
OF-417											
OF-611											
OF-13											
OF-415											
OF-101											
OF-139											
OF-718											
OF-330											
OF-184											
OF-170											
OF-163											
OF-171											
OF-173											
OF-176											
OF-178											
OF-177											
OF-174											
OF-727											
OF-728											
OF-729											
OF-596											
OF-493											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm_fld_s	main_need	main_desc
OF-261											
OF-262											
OF-263											
OF-254											
OF-253											
OF-100											
OF-256											
OF-99											
OF-98											
OF-598											
OF-257										Tree Work	
OF-597											
OF-258											
OF-725											
OF-567											
OF-402											
OF-404											
OF-404											
OF-403											
OF-409											
OF-386											
OF-385											
OF-384											
OF-563											
OF-588											
OF-37											
OF-724											
OF-370											
OF-77											
OF-85											
OF-86											

City of Woburn
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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-80											
OF-78											
OF-70											
OF-259											
OF-562											
OF-382											
OF-477									Believe this is a culvert		
OF-480											
OF-474											
OF-473											
OF-488											
OF-395										Remove Trash or Debris	
OF-396											
OF-569											
OF-568											
OF-3										Tree Work	
OF-6										Tree Work Remove Trash or Debris	
OF-410										Tree Work Remove Trash or Debris	
OF-7											
OF-390									No flow. Wetness indicated some water had flowed through today but no current flow. No staining, solids etc indicating an illicit discharge		
OF-391									No flow. Wetness indicated some water had flowed through today but no current flow. No staining, solids etc indicating an illicit discharge		
OF-664									No flow. Wetness indicated some water had flowed through today but no current flow. No staining, solids etc indicating an illicit discharge		
OF-387									No flow. Wetness indicated some water had flowed through today but no current flow. No staining, solids etc indicating an illicit discharge		
OF-2									No flow. Wetness indicated some water had flowed through today but no current flow. No staining, solids etc indicating an illicit discharge		
OF-1									No flow. Wetness indicated some water had flowed through today but no current flow. No staining, solids etc indicating an illicit discharge		
OF-391											
OF-664											
OF-390											
OF-2											
OF-1											
OF-387											

City of Woburn
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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-388											
OF-392											
OF-392											
OF-396											
OF-513											
OF-420											
OF-418											
OF-419											
OF-68											
OF-722									upstream from OF		
OF-722											
OF-722											
OF-722											
OF-722											
OF-96											
OF-713											
OF-722											
OF-722											
OF-722											
OF-96											
OF-713											
OF-139											
OF-718											
OF-139											
OF-718											
OF-68											
OF-139											
OF-313											
OF-313											
OF-313											
OF-68											

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f+A:ASacilityid	cl_ftk	fc_result	tc_result	cc_result	cl_ftk2	fc_result2	tc_result2	cc_result2	comm fld_s	main_need	main_desc
OF-418											
OF-139											
OF-68											
OF-130									These results were sent to the city of Woburn from Patrick Herron of the MyRWA. Technical memo date 4-11-2016. OF identified from the Lat/Long in the report		
OF-139											
OF-68											
OF-313											

City of Woburn
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October 8, 2019 - August 28, 2019

f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-96			2.0			Stormwater
OF-131						Stormwater
OF-130						Stormwater
OF-696						Stormwater
OF-511						Stormwater
OF-512						Stormwater
OF-234						Stormwater
OF-235						Stormwater
OF-515						Stormwater
OF-742						Stormwater
OF-740						Stormwater
OF-254						Stormwater
OF-98						Stormwater
OF-257						Stormwater
OF-597						Stormwater
OF-464						Stormwater
OF-465						Stormwater
OF-461						Stormwater
OF-459						Stormwater
OF-460						Stormwater
OF-80						Stormwater
OF-79						Stormwater
OF-78						Stormwater
OF-275						Stormwater
OF-272						Stormwater
OF-714						Stormwater
OF-87						Stormwater
OF-280						Stormwater
OF-430						Stormwater
OF-429						Stormwater
OF-22						Stormwater

City of Woburn
MS4 Outfall Inspections
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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-21						Stormwater
OF-422						Stormwater
OF-449						Stormwater
OF-450						Stormwater
OF-452						Stormwater
OF-77						Stormwater
OF-370						Stormwater
OF-23						Stormwater
OF-568						Stormwater
OF-569						Stormwater
OF-732						Stormwater
OF-734						Stormwater
OF-574						Stormwater
OF-467						Stormwater
OF-56						Stormwater
OF-55						Stormwater
OF-54						Stormwater
OF-625						Stormwater
OF-625						Stormwater
OF-517						Stormwater
OF-518						Stormwater
OF-728						Stormwater
OF-729						Stormwater
OF-598						Stormwater
OF-101						Stormwater
OF-94						Stormwater
OF-674						Stormwater
OF-454						Stormwater
OF-455						Stormwater
OF-463						Stormwater
OF-570			.75			Stormwater

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-437						Stormwater
OF-291						Stormwater
OF-290						Stormwater
OF-289						Stormwater
OF-569						Stormwater
OF-568						Stormwater
OF-710						Stormwater
OF-29		168	.25			Stormwater
OF-432						Stormwater
OF-479						Stormwater
OF-478						Stormwater
OF-469						Stormwater
OF-468						Stormwater
OF-470						Stormwater
OF-471						Stormwater
OF-757						Stormwater
OF-45						Stormwater
OF-42						Stormwater
OF-386						Stormwater
OF-563						Stormwater
OF-384						Stormwater
OF-385						Stormwater
OF-382						Stormwater
OF-388						Stormwater
OF-402						Stormwater
OF-594						Stormwater
OF-564						Stormwater
OF-565						Stormwater
OF-566						Stormwater
OF-405						Stormwater
OF-404						Stormwater

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-395						Stormwater
OF-9						Stormwater
OF-567						Stormwater
OF-38			.25			Stormwater
OF-50						Stormwater
OF-51			.5			Stormwater
OF-14						Stormwater
OF-91						Stormwater
OF-92						Stormwater
OF-789						Stormwater
OF-116						Stormwater
OF-626						Stormwater
OF-231						Stormwater
OF-230						Stormwater
OF-93						Stormwater
OF-456			0.5			Stormwater
OF-104						Stormwater
OF-368						Stormwater
OF-300						Stormwater
OF-236						Stormwater
OF-4						Stormwater
OF-3						Stormwater
OF-6						Stormwater
OF-410						Stormwater
OF-7						Stormwater
OF-8						Stormwater
OF-561						Stormwater
OF-349						Stormwater
OF-576						Stormwater
OF-575						Stormwater
OF-77						Stormwater

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-370						Stormwater
OF-54						Stormwater
OF-56						Stormwater
OF-56						Stormwater
OF-55						Stormwater
OF-562						Stormwater
OF-732						Stormwater
OF-734						Stormwater
OF-12						Stormwater
OF-596						Stormwater
OF-493						Stormwater
OF-519						Stormwater
OF-543						Stormwater
OF-545						Stormwater
OF-551						Stormwater
OF-241						Stormwater
OF-238						Stormwater
OF-237						Stormwater
OF-63						Stormwater
OF-66						Stormwater
OF-10			.3			Stormwater
OF-403						Stormwater
OF-578						Stormwater
OF-397						Stormwater
OF-398						Stormwater
OF-399						Stormwater
OF-400						Stormwater
OF-408						Stormwater
OF-401						Stormwater
OF-450						Stormwater
OF-452						Stormwater

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-449						Stormwater
OF-379						Stormwater
OF-353						Stormwater
OF-660						Stormwater
OF-521						Stormwater
OF-122						Stormwater
OF-712						Stormwater
OF-124						Stormwater
OF-125						Stormwater
OF-312						Stormwater
OF-379						Stormwater
OF-574						Stormwater
OF-270						Stormwater
OF-271						Stormwater
OF-718						Stormwater
OF-330						Stormwater
OF-660						Stormwater
OF-660						Stormwater
OF-409						Stormwater
OF-658						Stormwater
OF-47						Stormwater
OF-47						Stormwater
OF-46						Stormwater
OF-48						Stormwater
OF-391						Stormwater
OF-555						Stormwater
OF-22						Stormwater
OF-21						Stormwater
OF-467						Stormwater
OF-122						Stormwater
OF-521						Stormwater

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-753						Stormwater
OF-107						Stormwater
OF-591						Stormwater
OF-443						Stormwater
OF-387						Stormwater
OF-664						Stormwater
OF-5						Stormwater
OF-735						Stormwater
OF-736						Stormwater
OF-34						Stormwater
OF-75						Stormwater
OF-139						Stormwater
OF-233						Stormwater
OF-128						Stormwater
OF-11						Stormwater
OF-13						Stormwater
OF-415						Stormwater
OF-516						Stormwater
OF-345			0			Stormwater
OF-346						Stormwater
OF-348						Stormwater
OF-612						Stormwater
OF-212			0			Stormwater
OF-557						Stormwater
OF-363						Stormwater
OF-362						Stormwater
OF-23						Stormwater
OF-430						Stormwater
OF-429						Stormwater
OF-593						Stormwater
OF-621						Stormwater

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-418						Stormwater
OF-433						Stormwater
OF-41						Stormwater
OF-308						Stormwater
OF-508			0			Stormwater
OF-509						Stormwater
OF-705						Stormwater
OF-582						Stormwater
OF-705						Stormwater
OF-717						Stormwater
OF-205						Stormwater
OF-560						Stormwater
OF-557						Stormwater
OF-115						Stormwater
OF-528						Stormwater
OF-20						Stormwater
OF-422			0			Stormwater
OF-102						Stormwater
OF-723						Stormwater
OF-95						Stormwater
OF-713						Stormwater
OF-40			0.1			Stormwater
OF-37						Stormwater
OF-631						Stormwater
OF-35						Stormwater
OF-82						Stormwater
OF-83						Stormwater
OF-670						Stormwater
OF-523						Stormwater
OF-523			.1			Stormwater
OF-120			0.1			Stormwater

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 October 8, 2019 - August 28, 2019

f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-389						Stormwater
OF-390						Stormwater
OF-2						Stormwater
OF-1						Stormwater
OF-68			.1			Stormwater
OF-313						Stormwater
OF-590						
OF-55						
OF-694						
OF-69						
OF-663						
OF-663						
OF-79						
OF-272						
OF-706						
OF-517						
OF-710						
OF-709						
OF-669						
OF-708						
OF-670						
OF-618						
OF-528						
OF-529						
OF-633						
OF-373						
OF-68						
OF-713						
OF-96						
OF-448						
OF-452						

City of Woburn
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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-648						
OF-320						
OF-288						
OF-610						
OF-614						
OF-71						
OF-513						
OF-581						
OF-546						
OF-551						
OF-720						
OF-332						
OF-333						
OF-334						
OF-198						
OF-612						
OF-497						
OF-449						
OF-450						
OF-508						
OF-367						
OF-349						
OF-205						
OF-560						
OF-702						
OF-61						
OF-299						
OF-301						
OF-302						
OF-305						
OF-304						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-778						
OF-82						
OF-83						
OF-435						
OF-578						
OF-515						
OF-514						
OF-119						
OF-652						
OF-89						
OF-90						
OF-675						
OF-623						
OF-726						
OF-108						
OF-492						
OF-102						
OF-327						
OF-328						
OF-329						
OF-237						
OF-230						
OF-124						
OF-125						
OF-579						
OF-509						
OF-300						
OF-212						
OF-60						
OF-591						
OF-107						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-553						
OF-131						
OF-130						
OF-527						
OF-707						
OF-769						
OF-701						
OF-580						
OF-740						
OF-742						
OF-753						
OF-522						
OF-115						
OF-703						
OF-278						
OF-723						
OF-368						
OF-363						
OF-362						
OF-104						
OF-691						
OF-231						
OF-105						
OF-461						
OF-625						
OF-582						
OF-172						
OF-183						
OF-179						
OF-180						
OF-181						

City of Woburn
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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-182						
OF-700						
OF-699						
OF-699						
OF-241						
OF-240						
OF-239						
OF-236						
OF-128						
OF-238						
OF-234						
OF-233						
OF-228						
OF-227						
OF-113						
OF-114						
OF-43						
OF-716						
OF-265						
OF-276						
OF-682						
OF-683						
OF-266						
OF-343						
OF-347						
OF-348						
OF-344						
OF-346						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-345						
OF-436						
OF-437						
OF-439						
OF-631						
OF-290						
OF-289						
OF-291						
OF-294						
OF-457						
OF-66						
OF-692						
OF-32						
OF-31						
OF-34						
OF-75						
OF-697						
OF-714						
OF-87						
OF-59						
OF-372						
OF-371						
OF-315						
OF-755						
OF-695						
OF-314						
OF-573						
OF-331						
OF-609						
OF-29						
OF-23						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
FB-002						
OF-432						
OF-418						
OF-419						
OF-421						
OF-621						
OF-438						
OF-465						
OF-659						
OF-335						
OF-92						
OF-704						
OF-65						
OF-281						
OF-354						
OF-617						
OF-352						
OF-366						
OF-557						
OF-558						
OF-654						
OF-457						
OF-655						
OF-456						
OF-312						
OF-273						
OF-235						
OF-759						
OF-74						
OF-705						
OF-574						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-67						
OF-545						
OF-543						
OF-285						
OF-286						
OF-284						
OF-576						
OF-575						
OF-583						
OF-660						
OF-353						
OF-283						
OF-280						
OF-696						
OF-52						
OF-39						
OF-10						
OF-571						
OF-572						
OF-556						
OF-628						
OF-627						
OF-406						
OF-10						
OF-11						
OF-389						
OF-561						
OF-4						
OF-9						
OF-405						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-566						
OF-383						
OF-440						
OF-441						
OF-255						
OF-445						
OF-411						
OF-412						
OF-414						
OF-5						
OF-8						
OF-8						
OF-401						
OF-399						
OF-400						
OF-398						
OF-408						
OF-397						
OF-40						
OF-632						
OF-475						
OF-476						
OF-658						
OF-486						
OF-484						
OF-764						
OF-485						
OF-490						
OF-491						
OF-489						
OF-483						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-482						
OF-481						
OF-487						
OF-454						
OF-455						
OF-653						
OF-453						
OF-28						
OF-27						
OF-26						
OF-25						
OF-24						
OF-431						
OF-428						
OF-427						
OF-634						
OF-316						
OF-715						
OF-57						
OF-396						
OF-48						
OF-564						
OF-555						
OF-56						
OF-54						
OF-81						
OF-465						
OF-15						
OF-630						
OF-629						
OF-413						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-47						
OF-51						
OF-48						
OF-14						
OF-50						
OF-120						
OF-122						
OF-523						
OF-521						
OF-674						
OF-94						
OF-311						
OF-93						
OF-95						
OF-717						
OF-106						
OF-97						
OF-269						
OF-270						
OF-271						
OF-756						
OF-275						
OF-53						
OF-308						
OF-712						
OF-469						
OF-470						
OF-468						
OF-471						
OF-478						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-479						
OF-656						
OF-442						
OF-443						
OF-444						
OF-46						
OF-49						
OF-757						
OF-17						
OF-422						
OF-693						
OF-20						
OF-64						
OF-458						
OF-463						
OF-651						
OF-650						
OF-649						
OF-642						
OF-643						
OF-644						
OF-379						
OF-62						
OF-446						
OF-668						
OF-298						
OF-671						
OF-666						
OF-665						
OF-91						
OF-453						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-518						
OF-519						
OF-516						
OF-626						
OF-116						
OF-19						
OF-621						
OF-591						
OF-528						
OF-529						
OF-430						
OF-424						
OF-425						
OF-425						
OF-93						
OF-300						
OF-509						
OF-120						
OF-122						
OF-106						
OF-43						
OF-508						
OF-41						
OF-42						
OF-63						
OF-754						
OF-30						
OF-33						
OF-330						
OF-718						
OF-36						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-35						
OF-731						
OF-733						
OF-734						
OF-735						
OF-736						
OF-732						
OF-730						
OF-593						
OF-594						
OF-565						
OF-424						
OF-425						
OF-429						
OF-407						
OF-38						
OF-711						
OF-466						
OF-467						
OF-464						
OF-462						
OF-18						
OF-19						
OF-460						
OF-459						
OF-592						
OF-433						
OF-711						
OF-42						
OF-41						
OF-45						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-21						
OF-22						
OF-434						
OF-693						
OF-20						
OF-712						
OF-416						
OF-570						
OF-417						
OF-611						
OF-13						
OF-415						
OF-101						
OF-139						
OF-718						
OF-330						
OF-184						
OF-170						
OF-163						
OF-171						
OF-173						
OF-176						
OF-178						
OF-177						
OF-174						
OF-727						
OF-728						
OF-729						
OF-596						
OF-493						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-261						
OF-262						
OF-263						
OF-254						
OF-253						
OF-100						
OF-256						
OF-99						
OF-98						
OF-598						
OF-257						
OF-597						
OF-258						
OF-725						
OF-567						
OF-402						
OF-404						
OF-404						
OF-403						
OF-409						
OF-386						
OF-385						
OF-384						
OF-563						
OF-588						
OF-37						
OF-724						
OF-370						
OF-77						
OF-85						
OF-86						

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f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-80						
OF-78						
OF-70						
OF-259						
OF-562						
OF-382						
OF-477						
OF-480						
OF-474						
OF-473						
OF-488						
OF-395						
OF-396						
OF-569						
OF-568						
OF-3						
OF-6						
OF-410						
OF-7						
OF-390						
OF-391						
OF-664						
OF-387						
OF-2						
OF-1						
OF-391						
OF-664						
OF-390						
OF-2						
OF-1						
OF-387						

f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-388						
OF-392						
OF-392						
OF-396						
OF-513						
OF-420						
OF-418						
OF-419						
OF-68						
OF-722						
OF-722						
OF-722						
OF-722						
OF-722						
OF-96						
OF-713						
OF-722						
OF-722						
OF-722						
OF-96						
OF-713						
OF-139						
OF-718						
OF-139						
OF-718						
OF-68						
OF-139						
OF-313						
OF-313						
OF-313						
OF-68						

City of Woburn
MS4 Outfall Inspections
October 8, 2019 - August 28, 2019

f+A:ASacilityid	am_result2	eco_result	det_result	pho_result	fco_result	asset
OF-418						
OF-139						
OF-68						
OF-130						
OF-139						
OF-68						
OF-313						

Appendix I

Plan Amendment Log

STORMWATER MANAGEMENT PLAN

AMENDMENT LOG

Tighe&Bond

Amend. No.	Description of the Amendment	Date of Amendment	Amendment Prepared by (Name/Signature)
1	<ul style="list-style-type: none"> Updated Appendix G, SSO Inventory, to reflect SSOs through September 30, 2019 (Note: no additional SSOs from inventory provided in June 2019 SWMP) Added the following information to Appendix H: outfall screening data, catch basin cleaning optimization plan, and winter road maintenance policy. 	9/30/19	Janet Moonan Tighe & Bond 
2			
3			
4			
5			
6			
7			
8			
9			

Amend. No.	Description of the Amendment	Date of Amendment	Amendment Prepared by (Name/Signature)
10			