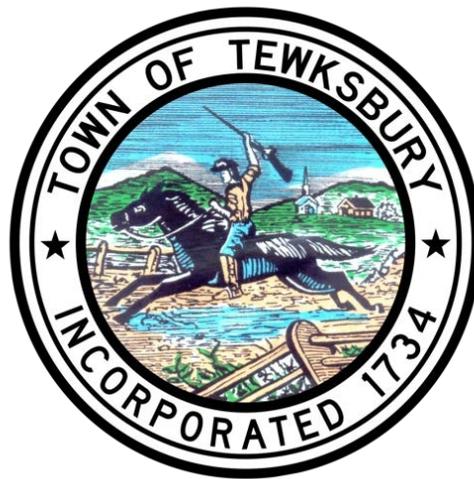


Best Management Practices (BMP) Retrofit Inventory Report

MS4 Permit Compliance



Town of Tewksbury, MA

Department of Public Works

999 Whipple Road

Tewksbury, MA 01876

June 30, 2022

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1.0 INTRODUCTION

1.1 Regulatory Requirement

The 2016 Massachusetts General Permit for Small Municipal Separate Storm Sewer Systems (MS4 Permit), which came into effect on July 1, 2018, regulates discharges from small MS4s to waters of the United States. The 2016 MS4 Permit was modified during 2020, and the modifications became effective on January 6, 2021. The Permit requires MS4 operators to develop, implement, and enforce a stormwater management program (SWMP). The purpose of the SWMP is to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the applicable water quality requirements of the Clean Water Act. MS4 operators are required to implement various Best Management Practices for each of the following six minimum control measures:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Stormwater Management in New Development and Redevelopment (Post-Construction Stormwater Management)
- Good Housekeeping and Pollution Prevention for Municipal Operations

As part of the minimum control measure for Post-Construction Stormwater Management, Section 2.3.6 of the 2016 MS4 Permit requires regulated communities to identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs designed to reduce the frequency, volume, and pollutant loads of stormwater discharges to and from its MS4. These BMPs may include the reduction of impervious area or the implementation of structural stormwater treatment practices, like bioretention areas or infiltration trenches.

The purpose of this exercise is to develop an inventory of BMP retrofit projects that can be implemented in future permit years as opportunities present themselves, as part of planned capital improvements to storm and sanitary sewer infrastructure or as part of road reconstruction projects. As BMP retrofit projects are completed, the Town of Tewksbury shall continue to identify potential sites for BMP retrofit opportunities to maintain a backlog of projects.

2.0 PARCEL CONSIDERATIONS AND RANKING

Properties and infrastructure for consideration shall include those with the potential for reduction of on-site impervious area as well as those that could provide disconnection of off-site impervious area from the MS4. At a minimum, Tewksbury shall consider municipal properties with significant impervious cover (including parking lots, buildings, and maintenance yards) that could be modified or retrofitted. MS4 infrastructure to be considered includes existing street right-of-ways, outfalls and conventional stormwater conveyances and controls (including swales and detention practices) that could be readily modified or retrofitted to provide reduction in frequency, volume or pollutant loads of such discharges through reduction and disconnection of impervious cover.

The following factors were considered in determining the suitability of municipally-owned parcels for BMP retrofit: access for maintenance purposes; subsurface geology; depth to water table; proximity to aquifers and subsurface infrastructure including sanitary sewers, septic systems and storm drains; and opportunities for public use and education. In determining a priority ranking, factors such as planned capital improvements, current storm sewer level of service, and control of discharges to areas of critical environmental concern such as water quality limited waters, first or second order streams, public swimming beaches, and drinking water supply sources were also considered, where applicable.

The following sections summarize the factors that were considered at each parcel when developing the list of BMP retrofit opportunities.

2.1 Impervious Area

Impervious area, or surfaces that do not allow stormwater to infiltrate into the ground, increase the amount of runoff directed to nearby water bodies. Rapid development and increased precipitation trends due to climate change mean that older systems may no longer be adequately sized to handle larger storm events. This can lead to localized stormwater flooding and property damage. Disconnection of impervious surfaces will promote stormwater infiltration through the use of structural BMPs and reduce the likelihood of stormwater flooding. BMPs improve water quality in receiving waters by removing pollutants from stormwater runoff before it is discharged.

Municipally-owned properties with large amounts of impervious surface provide ample opportunity for BMP retrofits. However, municipally-owned parcels that are mostly pervious may provide an opportunity for the Town to disconnect adjacent drainage systems and install BMPs to provide treatment and infiltration in the vacant area within a particular property. All municipally-owned properties will be considered for potential retrofit opportunities.

2.2 Soil and Groundwater Data

Structural BMPs and green infrastructure require certain soil properties to achieve efficient and effective water quality treatment. A low groundwater table, a large unsaturated thickness¹, and soils within Hydraulic Soil Groups (HSG) A and B provide the most optimal conditions for stormwater treatment and infiltration. Although these conditions are not required, suboptimal conditions may require added cost for the design and construction of a BMP retrofit if site conditions need to be altered prior to installation.

Data from the United States Department of Agriculture (USDA) web soil survey was retrieved to obtain soil conditions at each of the potential sites. Unsaturated thickness was taken from the Massachusetts Department of Environmental Protection (MassDEP) Well Drilling Database for Tewksbury.

2.3 Proximity to Aquifers and Subsurface Infrastructure

Parcels that are nearby aquifers and storm and sanitary sewer networks provide good opportunities for BMP retrofits. Stormwater treatment will help improve the water quality of nearby aquifers while promoting groundwater recharge. Proximity to drainage infrastructure is important when selecting sites for BMP retrofit. Parcels with on-site drainage or that have adjacent storm drains provide easier disconnection of drainage (and impervious surface runoff) to treat stormwater. This will be more cost effective to the Town, as it is less labor-intensive than extending a current drainage system to the parcel where a BMP is being constructed.

Most of Tewksbury is on sanitary sewer with the exception of some properties that still remain on septic systems. Tewksbury's sanitary sewer system is maintained by the Water & Sewer Division and sewer flows are conveyed to the Lowell Regional Wastewater Utility Treatment Plant through various sewer pump stations and sewer interceptors located throughout Town. A majority of the areas served by Town sewer also have drainage infrastructure. Tewksbury has a comprehensive sanitary sewer and drainage Geographic Information System (GIS) showing known and assumed outfalls, receiving waters, as well as sewer and drain manholes, catch basins, pipes, and stormwater best management practices.

The Tewksbury water system is supplied by the Town's Water Treatment Plant which sources raw water from the Merrimack River. The water system is made up of two pressure boosting stations, three storage tanks, and over 180 miles of water distribution mains and service lines. The Town's Flood Plain and Ground Water Protection Zoning Districts and the Wetlands Protection Bylaw protect public and private groundwater supplies including aquifers and recharge areas.

2.4 Opportunity for Public Education

Stormwater management practices, especially green infrastructure and surface treatment structures, are more effective when the public is educated and informed. Public outreach and engagement are critical components of the Town's stormwater management program, both in informing residents of

¹ Portion of soil above the water table.

the ways they can reduce stormwater pollution and in generating buy-in towards stormwater improvement projects. The MS4 Permit public education and outreach minimum control measure requires the Town to make educational information available to the public and other stakeholders.

Structural BMPs provide an opportunity for the Town to exemplify the educational information the Town has been distributing to the public. A BMP in a highly exposed area, such as near a municipal building or a popular park, can help spread awareness about stormwater management and water quality in receiving waters by demonstrating some of the physical mechanisms used in stormwater systems. The Town can also use interpretive signage at the BMP location to provide a more interactive opportunity for public education and engagement.

2.5 Planned Capital Improvement Projects

Municipally-owned properties that are part of or in the vicinity of planned capital improvement projects provide excellent opportunities for BMP retrofit. Incorporating BMP retrofits is easier and more cost effective in areas where roadway, storm drain, and/or sanitary sewer infrastructure is already under construction. In 2019, Tewksbury established a Stormwater Enterprise Fund, which became effective in July 2020, to support operation, maintenance, upgrades and expansion of the stormwater system and compliance with the MS4 Permit. The Town was awarded a Municipal Vulnerability Preparedness (MVP) Action Grant by the Executive Office of Energy and Environmental Affairs (EEA) in 2021 to complete a stormwater retrofit analysis for nature-based solutions and community co-benefits.

The Stormwater Analysis for Nature-Based Solutions and Community Co-Benefits completed in 2022 identifies green infrastructure concepts for the top ten sites selected for installation of nature-based solutions. The top 10 priority parcels identified in Tewksbury as part of the project include:

- Town Hall Campus
- Tewksbury Public Library
- Main Street Right of Way
- East Street Athletic Fields
- East Street Pump Station
- North Street Athletic Fields
- North Street School
- Open Space on Park Avenue
- Open Space on Marston Street

These sites will remain a priority as the Town looks for opportunities to incorporate green infrastructure town-wide as part of BMP retrofit projects. The Town also has plans to design and construct drainage improvements in the Woburn Street and Felker Street neighborhood.

2.6 Current Storm Sewer Level of Service

The level of service for stormwater infrastructure is the expectation of the storm sewer system to effectively control stormwater quantity and quality for the community. This includes meeting and maintaining regulatory and environmental standards, specifically those set forth by the MS4 Permit.

The level of service is meant to be evaluated system-wide to determine the ability of the system to provide protection against flood events and improve receiving water quality.

Installing BMPs that reduce volume of flow in the drainage system and improve water quality through infiltration and storage capacity will have the greatest benefit in areas with storm sewers that have below average level of service. As part of the stormwater BMP retrofit analysis recently completed under the MVP Action Grant Program, the Town was able to identify areas of their system with capacity issues based on feedback received from Town staff and residents, as well as a result of the hydrologic/hydraulic modeling completed as part of the project.

2.7 Discharges to Water Quality Limited Waters

Tewksbury, located in Middlesex County, is comprised of 0.3 square miles of open water (1.42% of the total town area), and the Town is located within the Concord, Ipswich, Shawsheen and Merrimack River Watersheds. The List of Integrated Waters, better known as the "303(d) list," identifies impaired surface waters and their reasons for impairment. The 303(d) List identifies water bodies that are impaired for one or more designated uses and require a Total Maximum Daily Load (TMDL). The primary impaired water bodies in town include Ames Pond, Content Brook, Long Pond, the Merrimack River, Pinnacle Brook, the Shawsheen River, Strong Water Brook, Sutton Brook, and Trull Brook. These water bodies are impaired for a number of factors according to the Final 2018/2020 Integrated List of Waters. All impairments to these water bodies are summarized in Table 1.

Water Body Name	Segment ID	Impairment(s)
Ames Pond	MA83001	Mercury in Fish Tissue
Concord River	MA82A-08	(Eurasian Water Milfoil, <i>Myriophyllum Spicatum</i> *), (Fanwort*), (Fish Passage Barrier*), (Non-Native Aquatic Plants*), (Water Chestnut*), Mercury in Fish Tissue
Content Brook	MA83-09	Benthic Macroinvertebrates, <i>Escherichia Coli</i> (E. Coli) ⁺
Long Pond	MA83010	Algae, Chlorophyll-a, Dissolved Oxygen Total Phosphorus, Transparency/Clarity
Merrimack River (Lowell Regional Wastewater Utilities outfall at Duck Island, Lowell to Essex Dam, Lawrence)	MA84A-03	(Fish Passage Barrier*), <i>Escherichia Coli</i> (E. Coli), Mercury in Fish Tissue, PCBs in Fish Tissue, Total Phosphorus
Pinnacle Brook	MA83-15	(Dewatering*), Chloride, <i>Escherichia Coli</i> (E. Coli) ⁺ , Fecal Coliform ⁺
Shawsheen River (Burlington Water Department's surface water intake, Billerica to the inlet	MA83-18	Dissolved Oxygen, <i>Escherichia Coli</i> (E. Coli) ⁺ , Fecal Coliform ⁺

Table 1: Impaired Waters in Tewksbury, MA

of Ballardvale Impoundment, Andover)		
Strong Water Brook	MA83-07	Escherichia Coli (E. Coli) ⁺ , Fecal Coliform ⁺
Sutton Brook	MA83-21	Escherichia Coli (E. Coli) ⁺
Trull Brook	MA84A-14	Escherichia Coli (E. Coli)
Unnamed Tributary (from Dascomb Road, Andover to confluence with Shawsheen River, Tewksbury)	MA83-20	Chloride

*TMDL not required, non-pollutant.

⁺TMDL complete

The Town is subject to the requirements of Appendix F and H of the 2016 MS4 permit, which outlines requirements related to discharges to water quality limited water bodies with and without a TMDL. Water bodies in Tewksbury tributary to the Shawsheen River with E. coli or fecal coliform impairments are included under the TMDL document entitled, *Total Maximum Daily Loads of Bacteria for the Shawsheen River Basin* that was published in August 2002². The Merrimack River and Long Pond are both impaired for phosphorus and require the development of TMDLs. Stormwater discharges to water bodies tributary to the Shawsheen River and the Concord River are also tributary to the Merrimack River, which means that almost every town-owned outfall is tributary to the Merrimack River.

Phosphorus Source Identification Report Requirements

For phosphorous impaired waters, Appendix F of the 2016 MS4 Permit requires the development of a Phosphorus Source Identification Report (PSIR) by June 30, 2022. As part of the PSIR, the Town is required to identify potential retrofit opportunities or opportunities for the installation of structural BMPs, including the removal of impervious area on municipally owned properties or within the right-of-way. Municipally-owned properties that are within catchments tributary to phosphorus impaired waters requiring the development of a PSIR should be prioritized to help comply with the requirements of this report and Appendix F.

Since most catchment areas in Tewksbury either directly discharge to a phosphorus-impaired water body, or discharge to a water body that is tributary to a receiving water impaired for phosphorus, a PSIR has been developed for the entirety of the Town's regulated area. This report identifies catchments with the highest potential phosphorus pollutant loads, and includes potential BMP retrofit sites in the high priority sub-catchments in Tewksbury.

² Total Maximum Daily Loads of Bacteria for the Shawsheen River Basin – Report MA83-01-2002-24; Prepared for the Massachusetts Department of Environmental Protection by Limno-Tech, Inc., August, 2002. <https://www.mass.gov/doc/final-tmdls-of-bacteria-for-shawsheen-river-basin-0/download>

2.7 Discharges to Drinking Water Supply Sources and Public Swimming Beaches

Section 3.0 of the MS4 Permit contains additional requirements for discharges to surface drinking water supplies and their tributaries. Permittees should provide pretreatment and spill control measures for stormwater discharges to public drinking water supply sources or their tributaries to the extent feasible. Structural BMPs within catchments discharging to drinking water supply sources will provide treatment to stormwater discharges and improve overall water quality in these areas. There are no specific surface water protection zones in Tewksbury, but hundreds of outfalls in Tewksbury are tributary to surface waters that discharge to tributaries of the Merrimack River, which is a drinking water supply source.

Other areas which would benefit from BMP retrofit are catchments tributary to public swimming beaches. Although there are no swimming beaches in Tewksbury, there are various parks in Town adjacent to surface waters for recreational use.

3.0 BMP RETROFIT INVENTORY

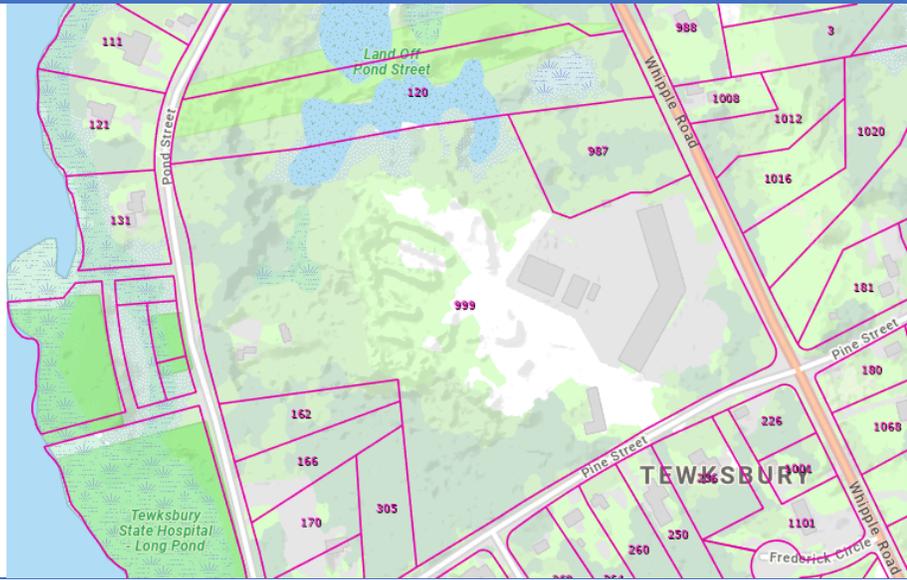
This section includes an inventory of BMP retrofit projects that the Town has plans to implement or will be considering implementation of in the future.

3.1 Site #1: Tewksbury Department of Public Works

Site #1: Department of Public Works	
Address	999 Whipple Road
Parcel ID	30-26
Total Lot Size	11.64 Acres
Total Impervious Area (acre/%)	35%
Total Pervious Area (acre/%)	65%
Predominant Hydrologic Soil Group (HSG) and Groundwater Status	The predominant hydrologic soil groups are Group A and Unknown. Well data from nearby 1109 Whipple Road indicates an unsaturated thickness of 15 feet.
Proximity to Planned Capital Improvements	The Town is actively working on the design of improvements to the DPW Facility, and these updates include improving drainage and implementing BMPs at this site.
Proximity to Water Quality Limited Waters	Stormwater from this site does not directly discharge to a water of the United States but is within the Long Pond Watershed and Long Pond is impaired for phosphorus.
Proximity to Existing Storm and Sanitary Sewers	There is existing sanitary sewer on Pond Street, Pine Street, and Whipple Road surrounding the site and limited storm drain infrastructure in the area; nearby catch basins are disconnected from the MS4 and do not discharge to a surface water.
Site Description	This site, located between Pond Street, Pine Street, and Whipple Road, is situated on a 12-acre municipally owned parcel that includes the Department of Public Works building, parking facilities, material, vehicle, and equipment storage and maintenance buildings/areas; the Northeastern Middlesex Regional Emergency Communication Center building and parking; as well as a significant amount of undeveloped, wooded area. The site is adjacent to some residential properties.

Site #1: Department of Public Works

Snapshot of Site



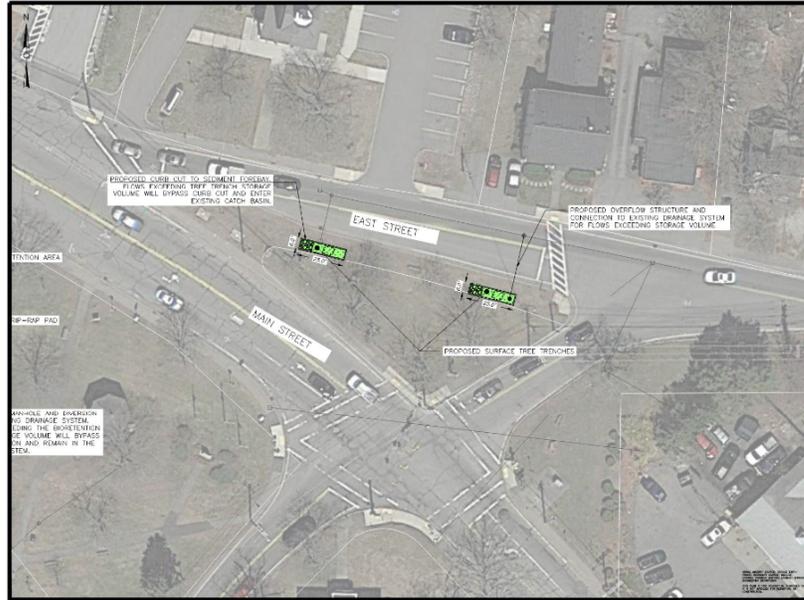
Proposed BMP Installations

The proposed stormwater design has three different treatment trains to treat stormwater prior to discharging through the site's singular discharge point. Treatment Train 1 includes a deep sump hooded catch basin and a bioretention area with a sediment forebay in series. Treatment Train 2 includes a deep sump hooded catch basin, hydrodynamic separators, infiltration basin and a bioretention area in series. Treatment Train 3 includes a deep sump hooded catch basin, hydrodynamic separators, infiltration basin and a bioretention area in series.

3.2 Site #2: Town Hall Campus

Site #2: Town Hall Campus	
Address	1009 Main Street, 11 Town Hall Avenue
Parcel ID	47-90, 47-94
Total Lot Size	1.50 and 1.56 Acres, respectively
Total Impervious Area (acre/%)	30% and 60%, respectively
Total Pervious Area (acre/%)	70% and 40%, respectively
Predominant Hydrologic Soil Group (HSG) and Groundwater Status	The parcels are made up of entirely Type A/D soils. Well data from 940 Main Street indicates an unsaturated thickness of 6 feet.
Proximity to Planned Capital Improvements	This site is identified as a priority parcel for the installation of green infrastructure and stormwater BMPs as part of the Town's Stormwater BMP Retrofit Analysis, which was funded through the MVP Action Grant Program. The parcels are adjacent to Dewey Street which was identified as a frequent flooding location during the MVP planning process.
Proximity to Water Quality Limited Waters	Stormwater runoff from the site does not discharge directly to a surface water. However, the site is located in the Strong Water Brook Watershed, and Strong Water Brook is impaired for bacteria.
Proximity to Existing Storm and Sanitary Sewers	There is existing sewer and drainage infrastructure on and adjacent to the site.
Site Description	The site is comprised of two parcels in a "campus" area including Town Hall, the Town Hall Annex building and a Fire Department building, totaling 3 acres of municipally-owned property. There is a large green space in front of the Town Hall building between Town Hall Avenue and Main Street, and another large green space behind the Town Hall Annex building next to Dewey Street. The parcels are adjacent to residential properties and heavily trafficked Main Street and Pleasant Street. The foot and vehicular traffic in this area provide significant opportunities for public education.

Site #2: Town Hall Campus



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No.	Date	Description

Scale: 1" = 30'
 Date: JUNE 2022
 Drawn By: OAP
 Reviewed By: JSM
 Approved By: JAS
 W&S Project No.: ENG21-1641
 W&S File No.:

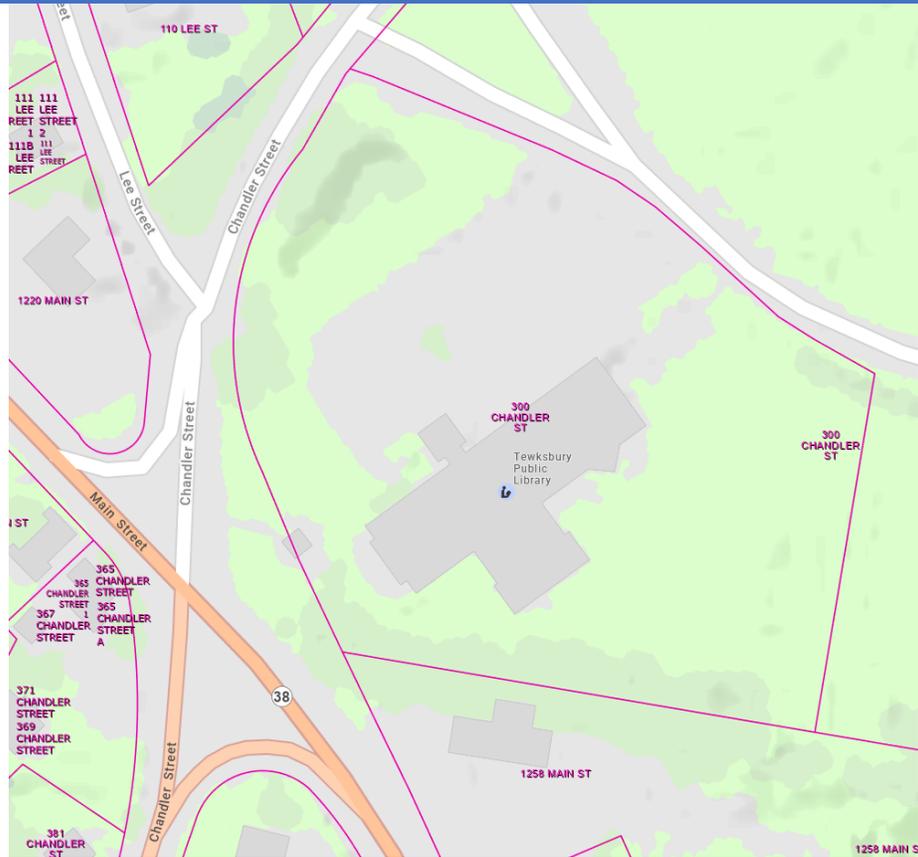
Sheet Title:
EAST STREET TREE TRENCHES
 Sheet Number:
2 OF 8

3.3 Site #3: Tewksbury Public Library

Site #3: Tewksbury Public Library	
Address	300 Chandler Street
Parcel ID	60-128
Total Lot Size	4.22 Acres
Total Impervious Area (acre/%)	33%
Total Pervious Area (acre/%)	67%
Predominant Hydrologic Soil Group (HSG) and Groundwater Status	The parcel has predominantly Type A/D soils. Well data from 1258 Main Street indicates an unsaturated thickness of 8 feet.
Proximity to Planned Capital Improvements	This site is identified as a priority parcel for the installation of green infrastructure and stormwater BMPs as part of the Town's Stormwater BMP Retrofit Analysis, which was funded through the MVP Action Grant Program.
Proximity to Water Quality Limited Waters	The site is located within catchment areas that discharge to Strong Water Brook, which is impaired for bacteria.
Proximity to Existing Storm and Sanitary Sewers	There is existing drainage infrastructure on and adjacent to the site.
Site Description	The Tewksbury Public Library is located on a 4-acre municipally owned parcel located at the corner of Main Street and Chandler Street and is adjacent to the Tewksbury Hospital and commercial properties. The site includes the library building, parking facilities and the Tewksbury 9-11 memorial. The site receives significant traffic, providing excellent opportunities for public education.

Site #3: Tewksbury Public Library

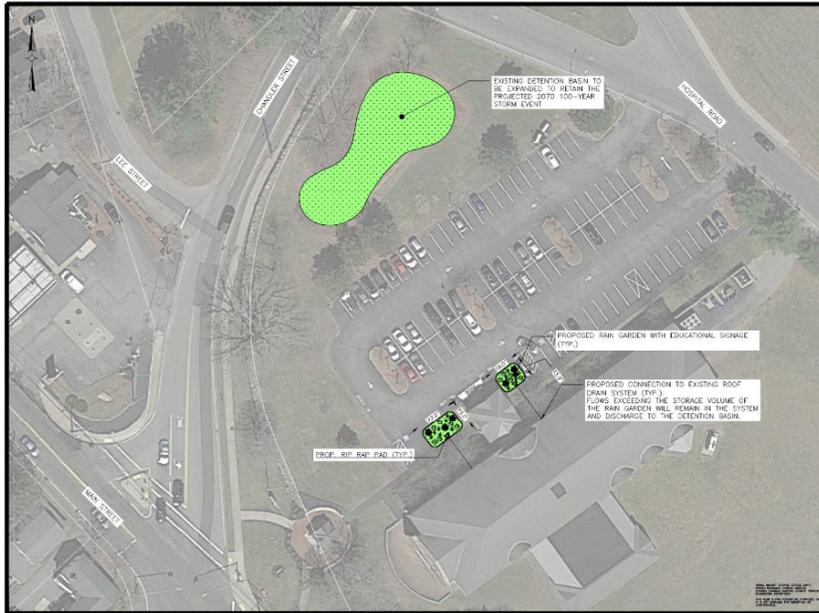
Snapshot of Site



Feasible BMP Installations

The proposed conceptual level BMPs at this site include two rain gardens near the entrance of the building, and expansion of the existing detention basin between the parking lot and Chandler Street to increase storage volume.

Site #3: Tewksbury Public Library



PROJECT
TOWN OF TEWKSBURY, MA
999 WHIPPLE ROAD
TEWKSBURY, MA 01876

STORMWATER RETROFIT
ANALYSIS - PLANNING LEVEL
DESIGNS

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Date: JUNE 2022
 Drawn By: CMP
 Reviewed By: JSM
 Approved By: JAS

WSS Project No: ENG21-1041
 WSS File No:

Issuing Title: TEWKSBURY PUBLIC LIBRARY GREEN INFRASTRUCTURE IMPROVEMENTS

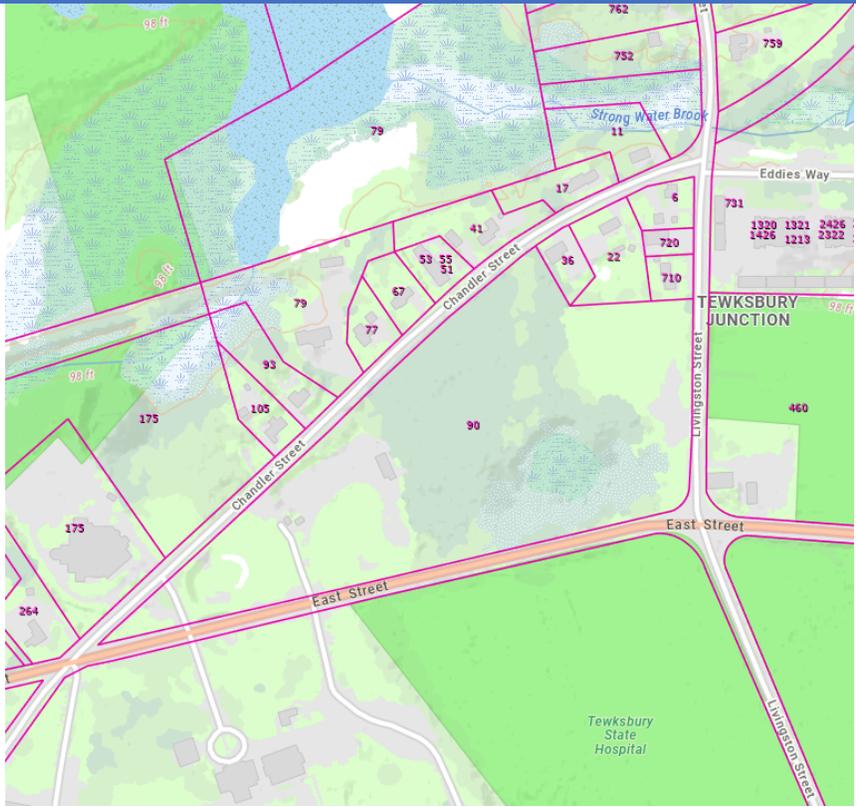
Sheet Number: **3 OF 8**

3.4 Site #4: East Street Athletic Fields

Site #4: East Street Athletic Fields	
Address	90 Chandler Street
Parcel ID	76-32
Total Lot Size	15.90 Acres
Total Impervious Area (acre/%)	8%
Total Pervious Area (acre/%)	92%
Predominant Hydrologic Soil Group (HSG) and Groundwater Status	The site has predominantly Group A soils. Well data from 365 East Street indicates an unsaturated thickness of 8 feet.
Proximity to Planned Capital Improvements	This site is identified as a priority parcel for the installation of green infrastructure and stormwater BMPs as part of the Town's Stormwater BMP Retrofit Analysis, which was funded through the MVP Action Grant Program.
Proximity to Water Quality Limited Waters	The site is located within a catchment area that discharges to Strong Water Brook, which is impaired for bacteria. Strong Water Brook is tributary to the Shawsheen River.
Proximity to Existing Storm and Sanitary Sewers	There is existing sanitary sewer on Chandler Street and storm drain infrastructure surrounding the parcel on Chandler Street and East Street.
Site Description	This site located between East Street, Chandler Street, and Livingston Street is situated on a 16-acre municipally owned parcel that includes three baseball fields, unpaved parking areas, some residential and commercial buildings and a significant amount of undeveloped, wooded space. The site is adjacent to the Tewksbury Hospital, and more commercial and residential properties. The amount of traffic during sports seasons provides a great opportunity for public education.

Site #4: East Street Athletic Fields

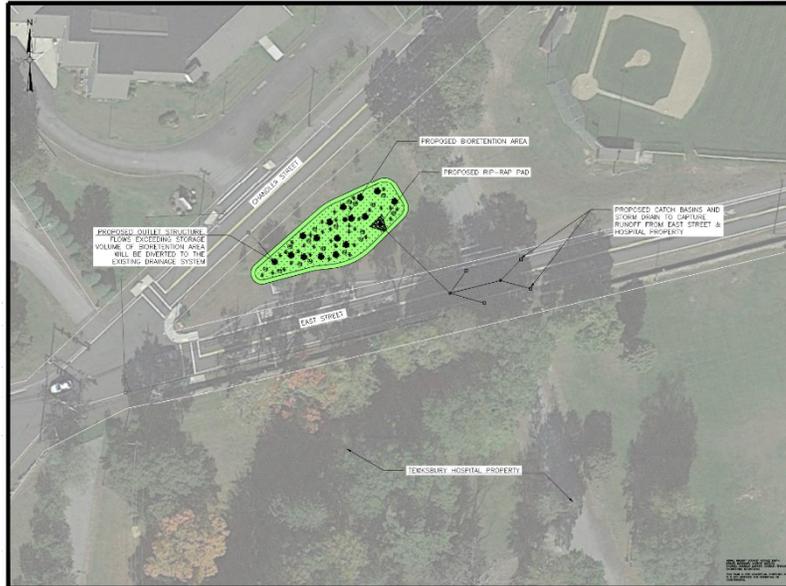
Snapshot of Site



Feasible BMP Installations

The proposed conceptual level BMPs at this site include a bioretention area in the open space in the corner of the parcel abutting East Street and Chandler Street, and permeable parking to replace the compacted gravel parking area next to the baseball fields.

Site #4: East Street Athletic Fields



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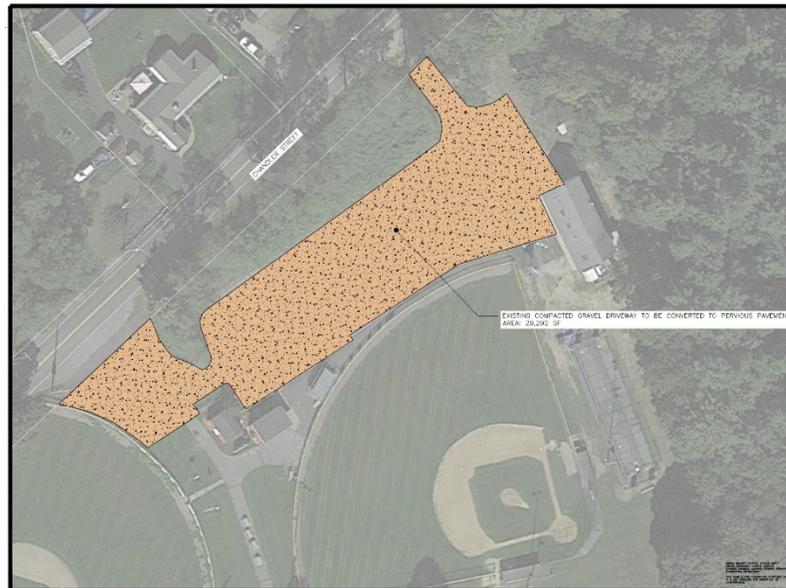
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 Scale: 1" = 40'
 Date: JUNE 2022
 Drawn By: CAP
 Reviewed By: JSM
 Approved By: JMS
 W&S Project No.: ENG21-1041
 W&S File No.:

Sheet Title:
EAST STREET & CHANDLER STREET BORENTENTION AREA

Sheet Number:
7 OF 8



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 Date: JUNE 2022
 Drawn By: CAP
 Reviewed By: JSM
 Approved By: JMS
 W&S Project No.: ENG21-1041
 W&S File No.:

Sheet Title:
EAST STREET & CHANDLER STREET PERVIOUS PAVEMENT

Sheet Number:
8 OF 8

3.5 Site #5: Open Space on Park Avenue/Lowell Street

Site #5: Open Space on Park Avenue/Lowell Street	
Address	Across from 15 Park Avenue
Parcel ID	3-22
Total Lot Size	1.46 Acres
Total Impervious Area (acre/%)	0%
Total Pervious Area (acre/%)	100%
Predominant Hydrologic Soil Group (HSG) and Groundwater Status	The parcel has predominantly Group A soils. Well data from 525 Woburn Street indicates an unsaturated thickness of 6 feet.
Proximity to Planned Capital Improvements	This site is identified as a priority parcel for the installation of green infrastructure and stormwater BMPs as part of the Town's Stormwater BMP Retrofit Analysis, which was funded through the MVP Action Grant Program. The parcel is located in the Lowell Street neighborhood which was identified as a frequent flooding location during the MVP planning process.
Proximity to Water Quality Limited Waters	The site is within a catchment area that is tributary to the Concord River. This catchment was ranked as high priority for phosphorus loading in the Town's Phosphorus Source Identification Report.
Proximity to Existing Storm and Sanitary Sewers	There is existing sanitary sewer on Park Avenue, but limited storm drain infrastructure in the area; nearby catch basins are disconnected from the MS4 and do not discharge to a surface water. The Town has considered adding drainage to Lowell Street and adjacent streets to mitigate flooding issues.
Site Description	The site is located on a 1.5 acre municipally owned, wooded parcel off Park Avenue and is adjacent to residential properties.

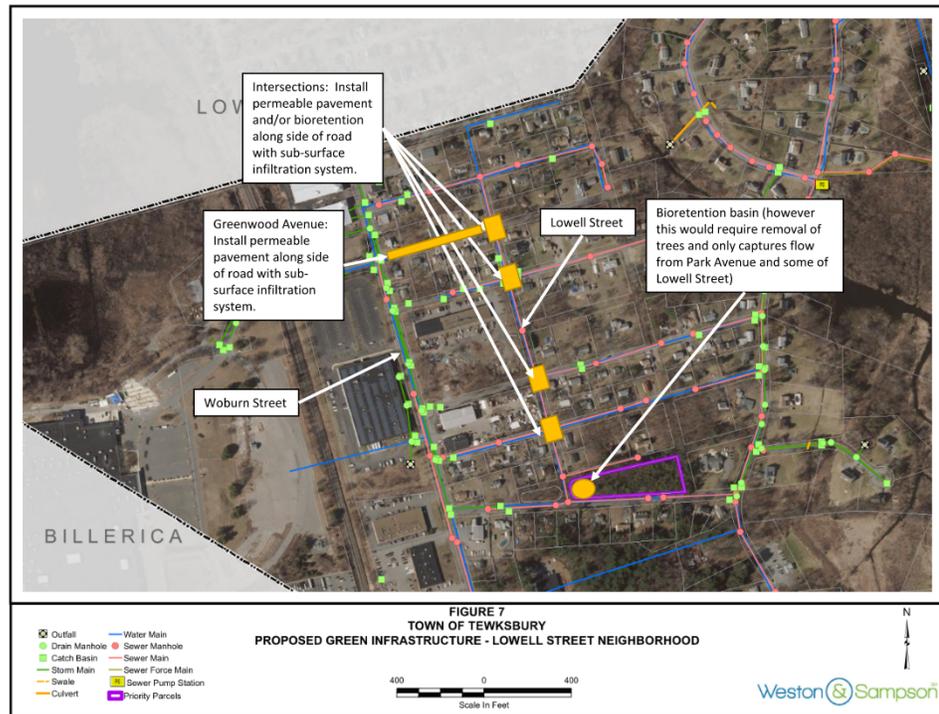
Site #5: Open Space on Park Avenue/Lowell Street

Snapshot of Site



The proposed conceptual level BMPs at this site include porous pavement at intersections and along specific roadways in the Lowell Street neighborhood with sub-surface infiltration systems and/or bioretention, leaching catch basins along Lowell Street, and a bioretention area within the parcel off Park Avenue.

Feasible BMP Installations



4.0 INVENTORY MAINTENANCE AND ANNUAL REPORTING

Beginning with the Permit Year 5 Annual Report and in each subsequent annual report, the Town is required to identify a minimum of five sites from this inventory for potential BMP retrofit opportunities. The sites outlined in this report should be included in the Town's annual report. As BMP projects are designed and completed, the Town is required to update this list to maintain at least 5 sites, until such a time that the Town has less than 5 sites remaining. In addition to reporting the sites in the inventory, the Town is required to report on all properties that have been modified or retrofitted with BMPs to mitigate impervious area that were previously inventoried. The Town may also include any non-MS4 owned property that has been modified or retrofitted with BMPs to mitigate impervious area in its annual report.