Municipality/Organization:

EPA NPDES Permit Number: **MAR041**

MassDEP Transmittal Number: **W-045481**

Annual Report Number & Reporting Period: Year 15 April 1, 2017 – March 31, 2018

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2018)

Part I. General Information

Contact Person: Karl J. Stinehart Title: Chief Administrative Officer

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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, 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.

Signature: Karl J. Stinehart

Printed Name: Karl J. Stinehart

Title: Chief Administrative Officer

Date: 4/23/18

Part II. Self-Assessment

The Town of Southwick has completed the required self-assessment and has determined that our municipality is in compliance with our Stormwater Management Program and permit conditions. The Town has mapped outfall locations throughout the Town as well as implemented Cartographic mapping for the Town. In 2014, the Town revised its 2012 plan to implement VUEWorks and contracted with Tighe & Bond to host a custom web-based product for work and asset management. Southwick continues to map additional stormwater infrastructure such as catch basins to address future permitting requirements. Southwick continues to publicize stormwater-related issues and encourages active participation by townspeople in addressing pollution and stormwater issues. The Town adopted by-laws that address the NPDES requirements while considering the existing regulations and procedures that address stormwater management at the March 15, 2008 and March 16, 2009 Town Meetings. The Southwick Stormwater and Floor Drain Bylaws and the Illicit Connection Bylaw were approved by Town voters at the March 15, 2008 Town Meeting. The Public Sewer Connections Bylaw was adopted May 12, 2003. The Sanitary Sewer Regulations were adopted on January 15, 2009, which also include specific stormwater prohibition provisions. The Construction and Post-Construction Bylaws were approved by Town voters at the March 16, 2009 Town Meeting. The Town actively enforces these by-laws. The final section of the sewer interceptor was completed in 2014, allowing Southwick to increase its flow to 500,000 GPD from the 175,000 GPD cap. Southwick is nearing completion of construction of a new sewer pump station to connect the schools to the Town Sewer System, and is in the process of identifying other neighborhoods that could benefit from a sewer expansion project. The factors being considered include housing density, age, small lots, high water table, septic system failure rates, proximity to the lakes and aquifer, and economic development. New stormwater management systems (including two BaySeparators and infiltrators) were installed as part of the ~3000' Feeding Hills Road Reconstruction Project. New deep sump catch basins and infiltrators were installed at a small subdivision to address flooding and erosion issues. New deep sump catch basins, a separator and infiltrators were required by DPW and added at a commercial property as part of parking lot expansion. Other stormwater-related projects in progress include infrastructure and drainage improvements along Veteran Street and Congamond Road. The Town has so far raised nearly $4 million of the $5 million needed to purchase and preserve ~110 acres of Zone II open land that also borders North Pond. The Town continues to seek funding to improve the water quality of Congamond Ponds and to improve stormwater management.

Acronyms Used in the Following Pages:

Con Com = Conservation Commission
CRC = Citizens Restoring Congamond
DPW = Department of Public Works
LMC = Lake Management Committee
PB = Planning Board
PRC = Parks & Recreation Commission
PVPC = Pioneer Valley Planning Commission
SB = Select Board

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Department	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1A	Classroom Education	School District	Incorporate Water Quality into curriculum	Program dropped due to school funding cuts.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 1
Revised					
1B	Westfield Evening News	Con Com / SB	Publish stormwater / water quality information 1x/year	Drinking water results are published annually.	
Revised					
1C	Newspaper Press Releases	SB	Publish stormwater / water quality information 2x/year	Newspaper articles published on Town Clean-up Day, Annual Lake Clean-up, sewer system expansion and installation progress and on-going drainage projects.	
Revised					
1D	Local Cable Access	SB	Post stormwater / water quality information 2x/year	Taped and televised re-runs of "Town Cleanup" and "Annual Lake Cleanup" Please refer to BMP 2C.	
Revised					
1E	Lakeside Kiosks	LMC	Post stormwater / water quality information 2x / year	Handed out information on exotic species to boaters launching at State Boat Ramps. Also, "No Weeds In / No Weeds Out" and "Do not feed waterfowl" signs posted at boat ramps. A Visitor Information Center is also present to provide information to the general public. Applicable Town Bylaw and CMR information is also posted on a kiosk at the North Boat Ramp.	
Revised					
1F	Community Website	SB	Post stormwater / water quality information 2x / year	CRC and Commonwealth of Massachusetts websites are linked through the Town's website; LMC, Con Com and Community Preservation Committee also have pages on the Town website. The DPW webpage also includes information on Highway Division activities including catch basin repairs and cleaning, street sweeping and roadside cleanup.	
Revised					

1a. Additions

1G	CT River Stormwater Committee	DPW/PVPC	Participate in regional stormwater committee	The Town continued its active membership in the CT River Stormwater Committee that is chaired by Patty Gambarini at PVPC (see attached annual report).	

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Department	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2A	Wetland Clean-Up	Southwick Rotary / Con Com	Support interested groups with trash pickup.	During 2017, the Southwick Rotary sponsored four highway clean-ups along College Highway, averaging 8 participants and 10-14 large bags of trash collected per cleanup. All trash collected was disposed of at the transfer station. The 2017 Green & Clean Day was held on 5/6/2017 and 6 volunteers picked up 2.5 one-ton dump truck loads of roadside litter, including tires, mattresses, and scrap metal.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 2.
Revised					
2B	Student Water Quality Monitoring	School Department	Conduct water quality sampling and analysis	The schools are still unable to continue lake water sampling program due to budget cuts. However, LMC and CRC volunteers continue to take and analyze numerous water samples during the year.	
Revised					
2C	Annual Lake Clean-Up	CRC	Conduct Clean-Up Day	The CRC and LMC annual clean-up of Congamond Ponds occurred on June 17, 2017, and 3 volunteers removed approximately 2 cubic yards of debris from Babb's Beach. Suffield DPW workers transported the debris to the disposal site.	
Revised					
2D	Lakeside Maintenance	LMC	Maintain trash receptacles at Congamond Ponds	LMC continued to maintain ~25 trash receptacles at public access points to Lake Congamond.	
Revised					
2E	Volunteer Water Quality Monitoring	CRC	Conduct water quality sampling and analysis	Water quality sampling & analysis was conducted monthly at Lake Congamond. Analyses include: temperature, pH, dissolved oxygen, conductivity, phosphorus, and chlorophyll. The Town's consultant prepared a detailed report summarizing the findings and recommendations for short, medium and long-term actions required to improve Congamond water quality. The Canal Restoration Subcommittee is in the process of developing a lake monitoring and action plan for the recommended long-term lake improvements. LMC volunteers obtained Town funding for additional lake monitoring equipment and testing services. The LMC is currently seeking $900K state funding to implement the actual alum treatment on this Commonwealth of Massachusetts Great Pond.	
Revised					

BMP ID #	BMP Description	Responsible Department	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	
2F	Weir Gate Replacement	LMC	Replace wood stop logs on Canal Brook (lake outlet) with sliding weir gates	LMC volunteers sought and received funding from the Towns of Southwick and Suffield for replacing wood stop logs with two stainless steel double-slide weir gates. These gates allow for underflow to reduce canal water stagnation or rising to reduce lake flooding during extreme storm events when the canal (outlet) tends to backflow into the lakes.	
Revised					

2a. Additions

2G	Town-Wide Clean-Up	CRC / Con Com / DPW	Conduct Town-Wide Clean-up Day	During 2017, the Southwick Rotary sponsored four highway clean-ups along College Highway, averaging 8 participants and 10-14 large bags of trash collected per cleanup. All trash collected was disposed of at the transfer station. The 2017 Green & Clean Day was held on 5/6/2017 and 6 volunteers picked up 2.5 one-ton dump truck loads of roadside litter, including tires, mattresses, and scrap metal.	
2H	Plantings for Erosion Control	Scouts	Plant trees to control erosion	The Scout's primary project for 2017 was working to extend a raised walk access to Great Brook behind Southwick Town Hall. Work on this expanded project is planned to continue in 2018.	
2I	Household Hazardous Waste Day			The Board of Health typically hosts a household hazardous waste disposal every other year; however, due to funding constraints household hazardous waste day was last held in 2013. A commercial hazardous waste disposal facility was setup in neighboring Westfield during 2014. The Southwick Police Department added a Drug Kiosk in 2013 at the police station so it can be accessed 365 days per year. The Southwick Fire Dept and Board of Health offers needles/sharps collection at their respective offices.	
2J	Storm Drain Labeling	DPW/ Westfield River Watershed Association	Label catch basins	During 2014-15, Westfield River Watershed Association spearheaded an effort to label storm drains with "NO DUMP" markers. Over 1,000 labels were made for Southwick and volunteers installed them in 2015.	

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Department	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3A	Mapping Stormwater Outfalls	DPW	Develop map of outfalls	The Town/DPW contracted the services of Cartographic, who mapped the Town's catch basins and outfalls, water system, and sewer system. This mapping, GPS and data system were made fully operational in 2008. The DPW is implementing Asset Management Software that will enhance the ability to map and track stormwater system components, work orders and actions.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 3.
Revised					
3B	Develop Illicit Discharge Program	DPW	Draft Plan	DPW has a Curtain Drain/ Foundation Drain Policy allowing connection to catch basins and a bylaw that prohibits discharging of sump pumps into the street or catch basins. DPW conducts periodic inspections for presence of gray water or bacteria, which would result in disconnection from the system. Potential illicit connections are identified and addressed through the storm drain outfall mapping process. The Illicit Discharge and Floor Drain Bylaw was approved at the March 15, 2008Town Meeting.	
Revised					
3C	Non-Stormwater By-Law	SB/DPW	Draft by-law.	During the March 2008 Town Meeting, the Town adopted an Illicit Connection By-Law regulating illicit connections and discharges to the storm drain system.	
Revised					
3D	Illegal Dumping	DPW	Perform regular patrols/cleanup	DPW performed regular patrols and cleaned up illegal dumped trash. Police have ticketed those found responsible for illegal dumping. The DPW continues to pull Transfer Station Permits for violating Transfer Station policies and/or dumping trash along the road.	
Revised					
3E	Water Quality Monitoring	BOH	Regular sampling at beach sites in summer	BOH performed weekly sampling plus interim sampling (total 8 samples) at Town Beach when open from late June through the last week of August 2017. The Town Beach was closed for the season on August 27 due to lack of personnel. The Town/Lake Management Committee continues to work with Ken Wagner (Water Resource Services (WRS)) on assessment and guidance for long-term water quality improvements for Congamond. Volunteers have taken and analyzed thousands of data points over the years, and collected additional samples for the WRS report. WRS issued a water quality assessment final report on 5/2/16, and is now working on an NOI for the recommended alum treatment. The Town is hoping to receive state funding for the alum treatment of this Commonwealth of Massachusetts Great Pond	
Revised					

3a. Additions

3F	Outfall Monitoring	LMC	Wet and dry weather sampling for Congamond outfalls	As part of the LMC's data gathering for WRS, wet and dry weather samples were taken at 8 stormwater outfalls into Congamond. Additional samples were taken in 2017 and more are planned for 2018.	
3G	Sediment Analysis	LMC	Muck coring samples at Lake Congamond and Canal Brook	As part of the LMC's data gathering for WRS, coring samples of the muck at the bottom of the lake and Canal Brook were taken and analyzed by an independent lab. All levels were below typical sediment standards and Massachusetts regulatory limits. The Town's consultant limnologist (WRS) is working on a plan to dredge the muck-ridden Canal Brook (outlet) and coves of this 14,000 year old waterbody.	

4. Construction Site Stormwater Runoff Control

BMP ID #	**BMP Description**	**Responsible Department**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 15** (Reliance on non-municipal partners indicated, if any)	**Planned Activities**
4A	Construction Run-Off By-Law	PB / Con Com / DPW	Draft By-Law	The Town, with the assistance of PVPC, drafted a by-law which was approved by Town voters at the March 16, 2009 Special Town Meeting. Building Department is distributing information packages on NPDES construction and requiring builders to sign off on receipt of package. Planning Board and DPW are informing developers of NPDES requirements and have incorporated proof of NPDES NOI submittal and development of SWPPP as permitting requirement.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 4.
Revised					
4B	Plan Review	PB / Con Com / DPW	Enforcement under by-law	Continued plan review per by-laws.	
Revised					
4C	Inspection / Reporting	DPW / PB / Con Com	Enforcement under by-law	Continued inspection / reporting under new by-laws. Town officials have worked with developers to ensure compliance with required BMPs during construction. A consultant was hired by the DPW to oversee stormwater management, etc. on a new major state road project. Developers continue to be cited and fined if necessary by Con Com for violations and the violations continue to be corrected when identified.	
Revised					

4a. Additions

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Department	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5A	Post-Construction Runoff By-Law	PB / Con Com / DPW	Draft By-Law	The Town, with the assistance of PVPC, drafted a by-law which was approved by Town voters at the March 16, 2009 Special Town Meeting.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 5.
Revised					
5B	Construction Site Plan Review	PB / Con Com / DPW	Enforcement under By-Law	Continued plan review per by-law.	
Revised					
5C	Stormwater System Maintenance Plan	PB / Con Com / DPW	Enforcement under By-Law	Continued inspection / reporting under by-law.	
Revised					

5a. Additions

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Department	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6A	Municipal Maintenance Activity Program	DPW / PRC	Evaluate and draft additional polices	All roads swept as part of spring cleanup. All catch basins are vacuumed 1x/year after sweeping.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and
Revised					
6B	Training of all Municipal Activities	DPW	Initial good housekeeping training	In-house training is done for new hires or anyone transferring within DPW. Good housekeeping training attended by Town Officials, maintenance and DPW staff was conducted on May 11, 2017.	
Revised					
6C	Catch Basin Cleaning Program	DPW	Clean 90% of catch basins annually	100% of town catch basins within the entire town were cleaned in the months of May through October 2017.	
Revised					

BMP ID #	BMP Description	Responsible Department	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	implementation of Best Management Practices to address the permit requirements for MCM 6.
6D	Street Sweeping & Cleaning	DPW	Sweep 90% of the streets annually	100% of paved streets within the entire town were swept in the months of April 2017.	
Revised					
6E	Prescription & Pill Collection	SPD	Try to host one collection day per year	In 2013, the Police Dept. added a MedReturn Drug Collection Unit in their lobby for 24/7 public access.	
Revised					

6a. Additions

6F	Exotic Aquatics Bylaw	LMC	Invasives management	Townspeople voted 11/30/99 to accept LMC proposed "No Weeds In/No Weeds Out" Town bylaw that addresses boats launching on Congamond Lakes – Ramp Attendants inspect boats entering/leaving ramps. DCR summer employee helped pass out info and educate boaters during summer 2011. The Visitor Center has more information available to public.	
6G	Stormwater Management	LMC/DPW	Stormwater improvements	LMC began seeking Town Funds & matching grants in 1995 to address erosion and sedimentation. LMC received grants in 1995, 1997, 1999, 2001 & 2008 for various catch basin, erosion control, sedimentation chambers, etc. A new 65-space public parking area was designed & built in 1998 adjacent to the boat ramp with 100% of stormwater sheet flowing onto grassy area where it percs naturally into ground. The Town & PVPC obtained S319 and municipal funding to implement stormwater quality improvements along Congamond Ponds, including installation of 16 BaySeparators, 2 detention/infiltration ponds, and 9 grassed swales that address 16 major stormwater outfalls on the Congamond Ponds.	

6G (cont.)	Stormwater Management (cont.)	DPW	Stormwater improvements included in DPW projects (cont.)	Banks of infiltrators with emergency overflow were added to an outfall by the Rail Trail. Two business expansion projects, a large park project and one new development have installed separators and infiltrators as recommended by the Town. In 2012, the DPW added a new deep sump catch basin, a deep sump DMH and rip-rap swale to help clean stormwater and reduce erosion on an existing outfall on Depot Street. A major DPW stormwater management project on Nicholson Hill Road included 18 deep sump catch basins, 3 StormCeptors, infiltrators, plunge pools & curtain drains. During 2015, DPW replaced deteriorating and underperforming drainage along Iroquois Drive, Woodside Circle, Charles Johnson Road, and Fred Jackson Road; plugged an overflow from a marsh that flowed into Congamond Ponds; added drainage to Bugbee Road; and rebuilt or replaced catch basins at several locations throughout Town.	
6G (cont.)	Stormwater Management (cont.)	DPW	Stormwater improvements included in DPW projects (cont.)	The DPW/Town continues to promote infiltration as applicable. During 2017 the DPW addressed and corrected erosion and local flooding issues on South Longyard Road and Woodside Circle. The $4 million Feeding Hills Road Phase 1 Reconstruction Project was completed, which included all new stormwater management BMPs. In addition, DPW mandated roof-water infiltration on new construction sites.	
6H	Waterfowl Bylaw	LMC		Townspeople voted 3/14/02 to accept LMC proposed "Do Not Feed Waterfowl" Town bylaw that setup fines for feeding waterfowl. Ramp Attendants hand out literature on "why" not to feed waterfowl & LMC installed "Do Not Feed Waterfowl" signs at ramps & public areas. Compliance is nearly 100% without having to issue fines.	
6I	Nutrient Reduction	LMC/DPW		The LMC/DPW sponsored an "Organic Landscapes Workshop" held at Town Hall on 3/23/10. The 22 attendees heard information presented by PVPC on how to have green lawns without nasty chemicals.	
6J	Waste Oil and Antifreeze	DPW		Residents may bring in motor oil, hydraulic oil, and antifreeze to the waste oil & antifreeze collection depot for recycling at the Transfer Station.	

6K	Recycling	DPW	Increase recycling	Contracted with local e-cycling firm that recycles electronic; Contracted with "Reading Tree" for recycling of books; Contracted with Salvation Army for on-site collection boxes for clothing, shoes, etc.	
6L	Stormwater BMPs	DPW	Reduce erosion, flows and TMDL	During 2017, 2 new deep sump catch basins and 17 infiltrators were added to address a local flooding and erosion issue in two areas of Woodside Circle. Two old catch basins were replaced with deep sump structures on Fernwood Road. 3000 linear feet and 4 intersections on Feeding Hills Road were reconstruction, along with all new stormwater management, which included numerous new deep sump catch basins, two BaySeparators and infiltrators. Stormwater management designs are being prepared by DPW engineering for three flooding/erosion "hot spots" for 2018 construction.	

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

Per Part I.D.3. of the General Permit, "if the MS4 is required to implement storm water waste load allocation provisions of the TMDL, the permittee must assess whether the WLA is being met through implementation of existing storm water control measures or if additional control measures are necessary. The permittee's assessment of whether the WLA is being met is expected to focus on the adequacy of the permittee's storm water controls (implementation and maintenance), not on the response of the receiving water." Southwick's MS4 discharges into waterbodies within the Long Island Sound watershed, which has a Final TMDL for Total Nitrogen. Because the TMDL is for a pollutant likely to be found in storm water discharges from Southwick's MS4, Southwick's Stormwater Management Program includes the following existing stormwater control measures, as reported in the above Annual Report, that address total Nitrogen:

- Community Website (BMP 1F)
- CT River Stormwater Committee (BMP 1G)
- Wetland Clean-Up (BMP 2A)
- Annual Lake Clean-Up (BMP 2C)
- Lakeside Maintenance (BMP 2D)
- Label Storm drains (BMP 2J)
- Construction Reviews (BMP 4B, BMP 4C, BMP 5B)
- Municipal Maintenance Activity Program (BMP 6A)
- Training on Municipal Maintenance Activities (BMP 6B)
- Catch Basin Cleaning Program (BMP 6C)
- Street Sweeping and Cleaning (BMP 6D)
- Stormwater Management (BMP 6G)
- Nutrient Reduction (BMP 6I)
- Stormwater BMPs (BMP 6L)

Part IV. Summary of Information Collected and Analyzed

- The Town notes the high involvement of its citizens and various community and lake organizations in improving town-wide environmental conditions.
- The Board of Health performed weekly sampling plus interim sampling (total 8 samples) at the Southwick Town Beach located on South Pond during the 2017 beach season, from June through mid-August 2017. There were no beach closures during the normal Town Beach season. The Town Beach was closed for the season on August 27 due to insufficient staff availability, and an algal bloom was treated in late June 2017.
- Extensive water analysis by a consultant during 2009 showed the mean levels of total phosphorus ranging from 24 ppb to 103 ppb depending on depth and width (of the three) ponds. Phosphorus levels were measured in all three ponds throughout the 2015 season and showed top levels as high as 0.025 to 0.030 mg/L and bottom levels as high as 0.080 to 0.450 mg/L. Phosphorus levels greater than 0.050 mg/L are indicative of eutrophic conditions and indicate that the Congamond Lakes are being impacted by stormwater runoff from roads and/or waterfront properties. Water testing and analysis continued to be performed by the Town's consultant limnologist and volunteers during 2017. That data and decades of accumulated data have been compiled into spreadsheets and analyzed by an LMC volunteer. The Town contracted with consultant limnologist Ken Wagner (WRS) to further analyze the data and make recommendations for additional data and future efforts needed to improve Congamond water quality. WRS published a 78 page report in 2016 summarizing data, findings and recommendations to improve water quality. The Town is seeking state funding for implementing the recommended alum treatment and selective dredging of the Canal and Lake Congamond.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2017 through March 31, 2018)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed - Currently being covered by DPW, Con Com, Town Planner, Building Inspector & Board of Health – Long range staffing and necessary funding being assessed. Con Com hired an outside consultant under MGL Ch. 44 §53G to perform peer reviews of new subdivision stormwater management plans. DPW secured $30K funding in FY2012 for Asset Management software to aid in identifying, categorizing tracking and servicing parts of the stormwater utility. The system was procured. Training and customizing of the product to reflect Southwick's needs continues on an ongoing basis.	(y/n)	**Y & N (See note left)**
Annual program budget/expenditures **	($)	**100,000**
Total program expenditures since beginning of permit coverage	($)	**Unknown**

Funding mechanism(s) (General Fund, Enterprise, Utility, etc.)		**General Fund, Ch. 90 + S319 Grants**

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(%)	**50**
Stormwater management committee established	(y/n)	**Y**
Stream teams established or supported - LMC Canal Brook Restoration Subcommittee formed in March 2012.	(y/n)	**Y**
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(mi.)	**5-6**
Shoreline cleaned since beginning of permit coverage	(mi.)	**50-60**
Household Hazardous Waste Collection Days		**Year-long program**
▪ days sponsored ** Town of Southwick partnered with New England Disposal Technologies (NEDT) to provide a year-long Household Hazardous Waste Collection Program, in which Southwick residents were able to dispose of up to $20 worth of certain hazardous waste items at NEDT's facility in Westfield, MA once every 12 months at no charge.	(#)	
▪ community participation ** (Waste oil/antifreeze and latex paint taken at Transfer Station)	(%)	
▪ material collected **	(tons)	
School curricula implemented (may be restored pending funding restoration by regional school district)	(y/n)	**NA**

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination – 3/15/2008					**X**
▪ Erosion & Sediment Control - 3/16/2009					**X**
▪ Post-Development Stormwater Management - 3/16/2009					**X**
Accompanying Regulation Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination - 3/15/2008					**X**
▪ Erosion & Sediment Control - 3/16/2009					**X**
▪ Post-Development Stormwater Management - 3/16/2009					**X**

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	**100**
Estimated or actual number of outfalls	(#)	**~225**
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	**100**
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	**100**
Outfalls inspected/screened **	(%)	**~50**
Outfalls inspected/screened (Since beginning of permit coverage)	(%)	**100**
Illicit discharges identified **	(#)	**2**
Illicit discharges identified (Since beginning of permit coverage)	(#)	**~45**
Illicit connections removed ** - Owner notified; Fines to follow if had not been corrected.	(#)	**3**
Illicit connections removed (Since beginning of permit coverage)	(#)	**~45**
% of population on sewer (added 5 residential units to system during 2017)	(%)	**25**
% of population on septic systems	(%)	**75**

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) ** (Adjacent ANR lots total >1 acre are not covered by regs)	(#)	**9**
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	**100**
Site inspections completed ** (3rd party weekly site reviews for TOS + DPW & Con Com reviews)	(#)	**~5**
Tickets/Stop work orders issued ** Con Com & DPW cited 2 sites	(#)	**2**
Fines assessed/collected ** - Fines issued by Con Com	($/$)	**0/0**
Complaints/concerns received from public **	(#)	**1**

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	**90**
Site inspections (for proper BMP installation & operation) completed **	(# or %)	**5**
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	**Y**
Low-impact development (LID) practices permitted and encouraged	(y/n)	**Y**

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr.)	**1**
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr.)	**1**
Qty of structures cleaned **	(#)	**~1,100**
Qty. of storm drain cleaned **	(LF)	**500**
Qty. of screenings/debris removed from storm sewer infrastructure **	(tons)	**600-700 (dry weight)**
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	**Town landfill / compost**
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)** Part of DPW overall tasks/budget	($)	**60,000**
• Hourly or per basin contract rate ** Performed in-house since 2005; Estimate is for 2 DPW workers and vac truck	($/hr.)	**125**
• Disposal cost** Performed in-house since 2005, estimated vac cost if contracted out	($)	**30,000**
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	**0**
• Vacuum truck(s) owned/leased	(#)	**1**
• Vacuum trucks specified in contracts	(y/n)	**0**
• % Structures cleaned with clam shells **	(%)	**0**
• % Structures cleaned with vactor **	(%)	**100**
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr.)	**1**
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr.)	**1**
Qty. of sand/debris collected by sweeping **	(tons)	**1,000 – 1,200**
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	**Town landfill / compost**
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)** Contracted cost plus in-house trucking	($)	**35,000**
• Hourly or lane mile contract rate **	($/hr.)	**119**
• Disposal cost**	($)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	**0**
• Vacuum street sweepers owned/leased	(#)	**0**
• Vacuum street sweepers specified in contracts	(y/n)	**Y**
• % Roads swept with rotary brush sweepers **	%	**100**

• % Roads swept with vacuum sweepers **	%	**0**
Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	**NA**
▪ Pesticides	(lbs. or %)	**NA**
Integrated Pest Management (IPM) Practices Implemented	(y/n)	
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	**98% NaCl** **0% $CaCl_2$** **2% $MgCl_2$** **0% CMA** **0% Kac** **0% KCl** **0% Sand**
Pre-wetting techniques utilized **	(y/n)	**Y**
Manual control spreaders used **	(y/n)(#)	**Y (2)**
Zero-velocity spreaders used **	(y/n)(#)	**Y (3)**
Estimated net reduction or increase in typical year salt/chemical application rate	(%)	**No change from prior year**
Estimated net reduction or increase in typical year sand application rate **	(%)	**100% reduction from prior year**
% of salt/chemical pile(s) covered in storage shed(s)	(%)	**100**
Storage shed(s) in design or under construction - - The new salt structure was ready for use for the 2016/17 winter season.	(y/n)	**Y**
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008 – New structure installed in 2016.	(y/n)	**N**

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	(y/n)	**NA**
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	(y/n)	**NA**
Treatment units induce infiltration within 500-feet of a wellhead protection area	(y/n)	**NA**