



**City of Takoma Park
2014 - 2015 Programmatic Interim Two-Year Milestones**

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates	Progress
Funding					
July 2015	Operational/Capital Budget Stormwater Utility Fee Review	Add new or modified impervious area into stormwater billing system	CTP	Identify new construction or any modifications (addition/subtraction) related to building area and update the storm water account for accurate billing	Ongoing periodic update
July 2015	Reassessment of City's impervious area to affirm or modify ERU and enhance SMW fund	Develop RFP and select Consultant for ERU reassessment and SMW Fund structural enhancement	CTP	Preliminary meeting to outline scope in February, 2015	Planning stage
July 2015	New Funding Source Development - Grant Applications	Obtaining Grants from public and private sources	DPW	Apply for Capital Improvement Grant for Sligo Mill/ Poplar Mill Stream Restoration Project	Ongoing
Program Development or Enhancement					
July 2015	Review current Street Sweeping and the possibility of increasing the frequency	Increase Street Sweeping	DPW	Currently Total Regenerative Street Sweeping: 40 Acres per Year	Ongoing
July 2015	Tree Planting by TP Urban Forest Office	Continue expanding the urban forest by planting 90+ public trees per year	DPW	100 trees were planted on public right of way on FY 2014	Ongoing

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates	Progress
January. 2015	BMP Inspection /Maintenance Program	Inspect and maintain all our existing BMPs as needed	DPW	Stormwater Maintenance and Inspection LLC inspected and reported the status of all public BMPs on June of 2014	Ongoing
December 2015	Complete GIS Layers for Public and Permitted BMPs	Create GIS Layer of public and private BMPs with pollution removal efficiencies. Georeferenced Permitted BMPs	DPW	Public BMP GIS layer was updated in 2014 and in process of adding permitted BMPs	50% Complete.
Tracking & Reporting					
July 2015	Aligning MS4 annual reporting w/Sept. 30 annual BMP progress reporting date	Sixth NPDES bi-annual report containing all BMPs completed and permitted	DPW	5th Annual NPDES report was submitted in 2012. Review Outstanding NPDES 2014	In progress
July 2015	Interim/Final Milestone Reporting Jan. 2015/Jan. 2016	Deliverable Interim and Final Milestone Reports	DPW	Interim Milestone Report Completed. Final BMP Reports due September 2015. Final Programmatic January 2016	Interim WIP Reports 100%
Outreach/Education					
July 2015	Mark a Drain Campaign	Outreach to recruit volunteers to mark drains	DPW	Recruit volunteer for Mark a Drain Campaign.	15%
Sep. 2014	Develop flyer to inform residents about City's SWM fee and practices	Flyer	CTP	A flyer was develop and mailed to all the property owners who pay City SW fee on September, 2014	100%
December 2015	Develop onsite educational display board depicting working mechanism of various ESD facilities	4 onsite display boards	CTP	Similar board are on display at Hancock Avenue and Forest Park Rain Garden	50%
March 2014	Implement City's Safe Grow Policy	Policy restricts commercial pesticide applicators and residents from using pesticide for cosmetic lawn care	DPW	The policy went into effect March, 2014. City is doing outreach to residents and commercial pesticide applicators on organic lawn care management	Ongoing

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates	Progress
Local Watershed/Project Planning					
2015	Identify a BMP out reach	Develop an outreach program to identify Public Private Partnership for potential BMP installation	CTP Planning-DPW	Efforts include reaching out to property owners whose lots have a large percent of impervious area.	Ongoing
July 2015	Site Identification for implementation opportunities	List of concept level feasible BMP's	DPW	Building a 5-year project CIP list includes identified low impact BMP's revised in 2014	Ongoing periodic update

Note: CTP= City of Takoma Park; DPW = Department of Public Works; SWM= Stormwater Management; ERU= Equivalent Residential Unit; ESD= Environmental Site Design NPDES= National Pollution Detection and Elimination System

Interim FY 14- FY15 BMP Milestones Progress Reporting

The Interim FY 14-FY15 BMP implementation report covers the City of Takoma Park's activities during the period from July 1, 2013 through December 31, 2014.

BMP Implementation Milestones are expressed as the amount of various types of restoration activities (e.g. structural BMPs), which have geo-located coordinates. The practices are quantified by various units, like acres, linear feet, or numbers of systems. The reporting period for FY 14–FY15 BMP Milestones covers two state Fiscal Years from July 1, 2013 through June 30, 2015. This period for BMP Milestones differs from the period for Programmatic Milestones, which covers the calendar years 2014 and 2015.

The Final Report of BMP Implementation Milestone Progress will be presented in September, 2015. A separate Interim Programmatic Milestone Report for calendar years 2014 and 2015 will be presented in January, 2016. The following information provides a brief description of retrofit BMPs, constructed on public right of way. This section is followed by a listing of structural and non-structural BMPs along with Impervious Acre Equivalent (IAE) for each practice.

Retrofit/Restoration BMPs:

1. The Prince George Avenue and Circle Avenue Bio -Retention Facility was initially constructed in FY12 and modified in FY 14. The contributing impervious drainage area was increased from 0.15 acre to 1.7 acres. This facility was modified to create additional storage. This facility currently provides treatment for the first 1- inch of a rain event from a total contributing drainage area of 4.4 acres pf which 1.7 acres is impervious.
2. Prince George Avenue and Belford Avenue Bio Retention Facility is a 150 SF facility created by removal of street pavement and curb and gutter in front of an existing inlet. The contributing drainage area for this facility is 0.5 acres of which 0.12 acres is impervious.
3. As part of traffic calming enhancement a bio retention facility was constructed by curb extension and partial utilization of grass median at the northeast quadrant of a roundabout at Elm Avenue and Lincoln Avenue intersection. This facility is connected to an existing storm drain inlet through a series of perforated pvc pipe at the base of the treatment facility connected to the inlet box. The facility provides treatment for run off from approximately 1.0 acre of which 0.2 acres is impervious.
4. Maple Avenue pollution removal facility consists of a patented runoff treatment system known as "Modular Wetland System Linear 2.0-®". The total contributing drainage area is approximately 6.7 acres of which 1.4 acres is impervious. The off line MWL system is located 100

Interim FY 14- FY15 BMP Milestones Progress Reporting

January 2015

City of Takoma Park, Maryland

feet upstream of Sligo Creek. The Average Daily Traffic (ADT) for the nearby intersection of Maple Avenue and Sligo Creek Parkway is in excess of 6,655 Vehicle Per Day (VPD) hence considerable non-source pollution is generated in the immediate watershed to Sligo Creek.

The MWL-2 system operates similar to a self-contained treatment sequence augmented with bio filtration. The non -source pollutants are removed through sedimentation in a settling chamber as well as bio filtration and subsequent media filtration. Non source pollution removal capability of the Modular Wetland Linear 2.0 system is reported to be above 90 percent for Nitrogen, Phosphorous and sediments.

5. Roanoke Avenue Filtration Basin was constructed in front of the only inlet for run off from a 2.3 acres drainage area that includes 1.1 acres of parking and roadway pavement servicing a neighborhood of 6 unit garden style apartment buildings. The facility was installed by removing 800 SF of asphalt pavement. The surface is composed of Eco-grid™ concrete pavers with center openings filled with No. 8 gravel and secured with an earthen adhesive known as gravel-lok . The pavers cover a multi layered filtering media 6 feet in depth and 20 ft. by 40 ft. in dimension in front of the existing inlet.

The filters' media layers consist of two alternating strata of gap graded washed No. 57 stone and No. 8 gravel. Near the base of the filter media a layer of No. 57 stone houses a network of perforated 6-inch PVC pipe grid connected to the bottom of the existing catch basin. Side walls of the 6-foot deep filtration basin are lined using PVC to curtail horizontal seepage. The pipe network conveys filtered water into the catch basin. This catch basin is drained by a 24 inch RCP pipe. The pipe conveys the filtered run off approximately 200 feet to its final out fall into Sligo Creek. The filter is designed to store the first 1-inch of runoff from any storm event. Once the storage capacity is reached the excess runoff sheet flows over the pavers discharging directly into the inlet.

Interim FY 14- FY15 BMP Milestones Progress Reporting

January 2015

City of Takoma Park, Maryland

Interim FY 14- FY15 BMP Milestones Progress Reporting				
No.	Action	Proposed Restoration Rates PER YEAR	Actual Restoration	% Progress
1	Stream Restoration	100 feet/year	400 LF ^{*1}	200%
2	SWM Retrofit ^{*2}	3 acre/year	4.6 acre	150%
3	Regenerative Street Sweeping	40 acres per year/total 1 acre=0.13 IAE ^{*3}	FY 14 – 40 acres FY 15 – not complete	50%
4	Urban Tree Canopy	100 trees /year 100 trees= 1 IAE	100 trees 1 IAE (in public ROW)	100%
5	Storm Drain Cleaning	10,000 lf/year	2014 - 8,000 lf inspected light cleaned IAE Not assigned	80%
6	Redevelopment	No goal set	Track historic data in progress	NA
7	Erosion Control	No goal set Glengarry- Hudson	2 projects completed	NA

*1 - Circle Woods stream restoration completed in FY 2014

*2 - Retrofit projects include Retention Filtration and Impervious area reduction

*3 - I A E = Impervious Acre Equivalent, From MDE Guidance Reference published August, 2014
(For street sweeping: 35.67 road miles*0.13 IAE*9 lane width=41.7 acres)