

# TMDL Tree Planting Program

## BACKGROUND

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The runoff water that flows through the MDOT SHA storm drain system eventually leads into local streams, rivers and the Chesapeake Bay. Because these waters are interconnected and not defined by county or state lines, the United States Environmental Protection Agency (EPA) takes a major role in regulating storm drain systems as part of its responsibility to enforce the Clean Water Act. The principal way that EPA regulates stormwater drainage in urbanized areas is through a permit process called the National Pollutant Discharge Elimination System - Municipal Separate Storm Sewer System Permit Program (MS4 Permit). The MS 4 permit is required for MDOT SHA to be able to build and improve the state's roadways.

In 2010, EPA developed the Chesapeake Bay Total Maximum Daily Load (TMDL) program as a way to reduce the discharge of pollutants in stormwater and improve the health of the Bay. That same year, MDOT SHA began to develop programs in cooperation with the Maryland Department of the Environment to meet TMDL requirements.

The MS4 Permit of MDOT SHA requires targeted pollution reduction to meet the Chesapeake Bay restoration goals. MDOT SHA implements multiple restoration efforts to meet pollution reduction goals through programs such as tree planting, stream restoration and construction of new stormwater facilities. Because conformance with the TMDL is required by EPA, renewal of MDOT SHA's MS4 Permit is contingent upon delivery of programs to improve water quality of streams that lead to the Bay.

## TMDL STRATEGIES

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The MS4 Permit requires MDOT SHA to treat or offset pollutants in stormwater runoff from 20 percent of untreated impervious surfaces by 2020. MDOT SHA is vigorously developing programs to improve water quality in Anne Arundel, Baltimore, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, Prince George's and Washington Counties. The focus of the MDOT SHA TMDL Tree Planting Program (Tree Program) is to restore forested areas of currently owned MDOT SHA property and rights of way as much as possible to avoid additional property impacts.

Because the restoration of mature tree canopy is considered a Best Management Practice of the Chesapeake Bay TMDL, the Tree Program installs trees as a cost-effective way to achieve pollution reduction goals by maximizing property already owned by the state. Other key TMDL strategies include stormwater controls, infiltration facilities and stream restoration projects, but these other programs involve greater degree of engineering development and long term maintenance costs.

## BEING A GOOD NEIGHBOR

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As the TMDL Tree Planting Program moved forward, MDOT SHA discovered that some neighbors adjacent to MDOT SHA roadways have concerns about how tree plantings can impact their views, farms and commercial businesses.



These concerns are taken very seriously by MDOT SHA and we have worked to balance our environmental obligations by partnering with adjacent agricultural landowners, nearby business and MDOT SHA lease holders by looking to develop innovative ways to minimize community impacts. MDOT SHA understands that tree plantings involve impacts and changes to highway areas. In many sites, trees are welcomed and encouraged by the community, and in some cases, there are concerns. We are committed to partnering with our neighbors to find the best ways to meet our environmental permit requirements while providing beneficial improvements to nearby communities, farmers and commercial businesses owners.

## **AGRICULTURAL PARTNERSHIPS**

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To accommodate concerns of farmers and other agricultural neighbors of MDOT SHA, the TMDL Tree Planting Program has reached out to adjoining property owners to maintain farm road access, to reduce shading by planting smaller trees, by adjusting the locations of tree plantings, and by managing noxious weeds. A large portion of tree planting opportunities on MDOT SHA right of way is being farmed. A recent shift in the MDOT SHA practice is to seek offsite tree planting opportunities by purchasing land for sale by private property owners.



## **COMMERCIAL BUSINESS PARTNERSHIPS**

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To accommodate concerns of adjoining businesses, MDOT SHA works with business owners at sites where the addition of trees might impact the visibility of signs and business from the roadway. The Tree Planting Program works directly with business owners to address any concerns regarding tree plantings and highway safety and to eliminate tree planting sites from consideration. A recent shift in the MDOT SHA practice is to avoid planting in front of commercial businesses completely.

## **LEASE PARTNERSHIPS**

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To accommodate concerns of lease holders of MDOT SHA property, the Tree Planting Program has reviewed leases and worked with lessees to avoid impacts. Trees will not be installed where they would interfere with the activities of lease holders, and MDOT SHA leases will continue to allow private use of right of way.

## **OFF-SITE PARTNERSHIPS**

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To improve community acceptance and further reduce conflicts with adjoining farms and businesses, the Tree Planting Program



continues to plant outside the MDOT SHA right of way on properties owned by partner state and local entities. MDOT SHA has purchased off-site land for sale by private owners to plant trees.

## **COMMUNICATION**

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Adjoining property owners are contacted by MDOT SHA several times before trees are installed. MDOT SHA seeks early and frequent contact with adjoining property owners and wants to work through your concerns.

## **TREE ESTABLISHMENT & CARE**

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The Tree Planting Program provides follow-up care for all newly planted trees to ensure they thrive. Mowing is performed annually to provide a naturalized landscape that supports native plants and pollinators. To preserve the full benefit of the tree planting and meadow, adjacent property owners are welcome to maintain a clean edge along their property boundary but are discouraged from activities within planting sites that may harm the trees.

## **THE PATH AHEAD**

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The MDOT SHA Tree Planting Program is currently winding down in response to fewer planting opportunities. As of April 2018, the last four active tree planting contracts are active on the upper eastern shore and in Baltimore, Harford, Carroll, Frederick and Howard counties. No tree planting projects are planned on MDOT SHA rights of way after these contracts are completed in 2019.

In lieu of planting on MDOT SHA rights of way, several tree management projects are underway to maintain existing tree sites, and new planting sites will only be established on property of the Maryland Department of Natural Resources sites in fall 2018. MDOT SHA will continue to pursue tree planting opportunities on purchased land that is not within rights of ways, and MDOT SHA will continue other strategies to improve stormwater quality in our effort to restore the Chesapeake Bay.

