



January 31, 2014

Revised Two-Year TMDL Milestones: Progress and Proposed 2015 Milestones Talbot County Maryland

1. **BMP location and quantity inventory**—Coordinate with the State, Talbot County Departments, municipalities and private landowners to develop an inventory of potential sites for BMP installation. Produce a list of such sites and assess their availability and viability.

Progress:

- a. Staff has attended regional and State level meetings to receive briefings on current status of State TMDL efforts.
- b. Staff has worked with and secured State funding for Trappe, St. Michaels, Oxford and Easton to develop municipal level Watershed Implementation Plans. Towns account for 22 percent of County's nitrogen load.
- c. Staff has participated in MDE's Accounting for Growth Workgroup to develop program to implement offsets and nutrient trading to meet the TMDLs.
- d. Staff has become familiar with the Natural Resources and Conservation Service's (NCRS) web-based Best Management Practices locator tool.

2015 Milestone:

- a. Use NRCS Best Management Practices locator tool to identify specific sites to implement the practices used in the MAST model to achieve the TMDL nitrogen reduction requirement. Test to determine if sufficient sites exist to implement the County's TMDL achievement scenario.

2. **Funding**—Continue to seek funding for, and facilitate the installation of, denitrification on-site septic systems. Assess local funding needs and options.

Progress:

- a. Received \$1.2 million in funding from the Bay Restoration Fund for conversion of septic systems to denitrification and connection to Enhanced Nutrient Reduction (ENR) systems.

2015 Milestone:

- a. Continue grantsmanship efforts to secure demonstration and implementation project funding
- b. Explore local financing requirement scenarios
 - i. Budget cost of required BMPs
 - ii. Provide local funding options to meet estimated BMP cost

iii. Determine local funding approach and implement by 2015

3. **Determine State and federal funding for BMP installation.**

Progress:

- a. Attended MDE meetings about, and have kept informed of, current status of grant opportunities. Funding has not significantly increased at the State or federal level for local Watershed Implementation Plan implementation. Prospects for State and federal funding of urban stormwater BMPs are not favorable. Septic goal may be at least partially achieved through the freeing up of Bay Restoration Funds in 2017. This could occur after all major wastewater treatment plants are upgraded to ENR standards by the Bay Restoration Fund.

2015 Milestone—See Milestone # 2 above

4. **Explore the efficacy of improving management of roadside ditches:**

- a. Determine the opportunity for converting roadside ditches to bioswales
- b. Determine the opportunity for converting roadside ditches to wetlands

Progress:

- a. Staff has explored innovative technologies and completed the installation of a demonstration project in the Tred Avon Watershed and stormwater retention pond in the Tanyard Branch. A floating wetland has been funded and installed in the ponds at 215 Bay Street, Easton, Maryland and \$50,000 of local funds has been allocated for Best Management Practices to be added to the Glebe Road project.

2015 Milestone—Continue to provide demonstration projects and assess their efficacy with the implementation of Milestone #1 above and delete this item as a separate milestone.

5. **Surface Water Management Utility**—Propose and seek adoption of a surface water management utility to develop a sustainable funding mechanism. Consider this approach through the work of Milestone # 2 above and delete this item as a separate milestone.

6. **MAST Land Cover Data Review**—Review land cover location and amount by type.

Progress: Staff assessed MAST land cover data and it is not mapped, so confirming site specific land cover is not possible. This milestone is complete.

7. **New BMPs Accepted by Bay Model**—Review MAST TMDL strategy as new Best Management Practices (BMPs) are added. Amend Talbot County strategy as appropriate.

Progress:

- a. Staff is keeping informed of MAST amendments.

2015 Milestone—Update Talbot County TMDL implementation scenario with appropriate, cost-effective BMPs as they become accepted for the Bay Model and MAST.

8. **Understand BMP Installation, Maintenance and Performance**

Characteristics—Gain detailed understanding of the MAST BMPs and their installation requirements.

Progress:

- a. Staff has monitored the performance of the demonstration projects installed in Talbot County (bag filters, ditch enhancement projects, bioretention and tree planting).
- b. The Center for Watershed Protection has analyzed and produced nitrogen reduction efficiencies for the bag filters installed in Talbot County.
- c. Staff has attended meetings and field demonstrations of innovative Best Management Practices.

2015 Milestone—Continue work to understand the details of BMPs available to include in the implementation strategy. Consider cost effectiveness and pursue the most cost effective mitigation measures to meet the TMDL targets.

9. **Develop Septic Utility**—Pursue implementation of a septic utility for inspection and pump out of on-site septic systems.

Progress: Proposal submitted to County Council for their consideration. Include this approach for consideration within Milestone #2 above.

10. **Septic Connection Priority System**—Establish a water and sewer plan policy giving priority to the connection of existing on-site septic systems with an order of location precedence for connection. This policy would set priorities to achieve the maximum pollution reduction from such efforts.

Progress: A joint workgroup of the Planning Commission and the Public Works Advisory Board has prepared a recommendation for growth and sewer extension policies which will address this milestone.

2015 Milestone—Formally establish the policy and identify through the water and sewer plan specific potential locations for future sewer system extensions.

11. **Hyde Park, Martingham, Oxford and Tilghman Sewerage**—Connect the Hyde Park Community to the Easton Utilities Sewer System; Connect the Martingham sewerage to the Region II System.

Progress: Completed.

2015 Milestone—Connect the Martingham wastewater system to the Region II System. Monitor Oxford's progress to upgrade to an Enhanced Nutrient Reduction plant. Explore performance enhancements for the Tilghman Wastewater Treatment Plant

12. **Tree Canopy Increase**—Work with the municipalities to increase tree canopy cover requirements in urban and rural areas.

Progress: Urban tree canopy has been accepted as a viable Best Management Practice.

2015 Milestone—Continue to pursue increased tree canopy and in cooperation with the municipalities, seek funding through the Chesapeake Bay Green Streets-Green Jobs-Green Towns Grant Program and other sources as they become available. Direct the Planning Commission to enforce zoning code landscaping

and street tree requirements unless truly special circumstances exist making such plantings impractical or a hazard.

13. **Urban Nutrient Management Planning**—Develop a mechanism for urban nutrient management planning and implementation. Implement plans and policies for the municipalities and villages.
Progress: Chesapeake Bay Program completed *Recommendations of the Expert Panel to Define Removal Rates for Urban Nutrient Management* (Schuler and Lane 2013). This document provides the current thinking on the components of urban nutrient management and its results.
2015 Milestone—Implement urban nutrient management planning per the implementation strategy. Work with the State or locally fund the acquisition of a high visibility billboard to increase public information outreach of urban nutrient management program.
14. **BMP Tracking**—Develop tracking mechanism for installed BMPs and track assumed pollution reductions.
Progress: Staff worked with MDE and several non-profit organizations to produce an effective Best Management Practice tracking mechanism.
2015 Milestone—Finalize and implement formal BMP tracking system.
15. **2017 TMDL Goals**—Devise interim strategy to achieve 2017 TMDL goals implementing low cost/no cost BMPs to achieve pollution reductions.
Progress: Action deferred until path to 2025 final TMDL becomes clear. The County takes note that the State’s funded wastewater system upgrades will meet the 2017 statewide interim goal for nitrogen reduction. The County will continue its local efforts to install demonstration and cost effective BMPs to meet its TMDL targets.
16. **Local Funding Requirements**—Determine local funding requirements and develop method for obtaining funds.
Progress: Staff has worked with MDE’s nutrient trading work group to ensure jurisdictions can participate in trading program as this would result in the most cost effective approach. Incorporate this milestone into Milestone #2 above.
17. **Local Coordination**—Develop and implement institutional arrangements to achieve local TMDL through coordination with local stakeholders and especially with municipalities and the State.
Progress: See #1 above and #20 below for work accomplished and future local coordination. This milestone will be incorporated into Milestone #20.
18. **Region II Wastewater Performance**—The Region II Wastewater Treatment Plant, an ENR upgraded facility, will discharge 4,000 pounds or less of Total Nitrogen (TN) for 2012, 2013 and 2014 and will discharge 400 pounds of Total Phosphorus (TP) or less during the same period. This will provide a surplus of 4,040 pounds or more of TN for

2012, 2013 and 2014. As for TP, the surplus will be 203 pounds or more for each year from 2012 through the end of 2014.

Progress: These plants continue to operate below the nutrient caps. This variance can be used to help Talbot County meet its TMDL obligations.

2015 Milestone—Continue to operate the plant at this high level of efficiency.

19. **County to lead by example for land and facility management (new milestone)**—County maintenance and property development work should set the example for other jurisdictions and the private sector on TMDL achievement.

Progress: New milestone for 2015

2015 Milestone:

- a. County lawn areas are not to be fertilized
- b. Increase tree canopy cover on County properties
- c. Provide maximum feasible BMPs in the County's Oxford Park development plan
- d. Require best management practices for County land rented for agricultural use
- e. Install promising best management demonstration projects on County property (County Government Building on Bay Street, Talbot County Community Center and other County facilities.
- f. Develop inventory of County properties with list of applicable BMPs, produce budget for each property, set priorities for implementation and install BMPs as funding permits.

20. **Municipal TMDL Progress (new milestone)**—Work with and facilitate the County's municipalities to achieve their fair share of the nutrient reduction load. Finalize town mini Watershed Implementation Plans and work with the towns to implement them.
21. Explore legal authority for County to require and/or to provide incentives for nutrient reductions for all land use sectors (Urban, Septic, Processed Water, Agriculture and Forest sectors).

Best Management Practices Installed During the Period of 2011 Through 2013

Unless otherwise noted, these projects were undertaken by the Talbot County Department of Public Works.

1. Connections to ENR Treatment Plants—53 properties with septics and 241 properties at Hyde Park; Thorneton Road sewer line extension completed, resulting over time in abandonment of 53 septic systems and connection to ENR wastewater treatment facility.
2. Septic Denitrification Unit Installed—59 septics upgraded to denitrification units.
3. Bag Filters—Installation of three stormwater bag filters in the Town of Easton treating 274.5 acres; Installation of one stormwater bag filter in the Town of Oxford treating 42 acres.
4. Bioretention—Installation of bioretention and vegetative swale stormwater treatment systems for 83 acres of roadside ditch drainage in the Tred Avon Watershed.
5. Stormwater Treatment Pond—Construction of a 1.8 acre stormwater treatment pond for a 75 acre Tanyard Branch watershed in the Town of Easton.
6. Riparian Buffers—Secured \$179,582 in grant funding from the Governor’s Stream Restoration Challenge Program to plant 13.4 acres of riparian tree buffers at four sites in Talbot County, the Town of Easton and the Town of St. Michaels. Midshore Riverkeeper Conservancy secured \$25,304 in grant funding from the Governor’s Stream Restoration Challenge Program to plant 2.5 acres of riparian tree buffers in the Lewistown Road Community Park.
7. Urban Nutrient Management—Talbot County Extension completed soil tests and developed 110 urban nutrient management plans for residential properties in the Tred Avon Watershed.
8. Rain Gardens—Talbot County Extension installed rain gardens at the Oxford Community Center and their office complex in Easton to treat stormwater. In addition to County efforts, local non-governmental organizations have been working to assist the County in meeting its TMDL targets. For example, the Midshore Riverkeeper Conservancy has undertaken, or is in the process of undertaking, the following projects:
 1. Agricultural Innovation: Obtained grant funds and have successfully designed and constructed innovative woodchip bio-reactors and groundwater interceptors on two Midshore farms. Bioreactors require a small footprint, cost relatively little, require no maintenance, can last 20 to 30 years, and can reduce nitrogen in groundwater by up to 40%. Seven additional sites are in the design phase to be implemented in 2014.
 2. Stream Restoration: \$72,000 grant received for stream restoration and tree plantings on over seven acres of tributary buffer previously in row crop agriculture; additional grant funding has been applied for.
 3. Lawn Fertilizer Campaign: Educational campaign to increase understanding of lawn fertilizer’s pollution affect and to encourage reduction/elimination of its application for

- residential lawns. A billboard message on Route 50 this summer (2014), and community service announcements, will spread the message to Talbot and Queen Anne's Counties.
4. Urban Stormwater Retrofits: Grant received to install 50 innovative filters in the stormwater intake sewers in Easton to remove stormwater borne phosphorus, hydrocarbons, and solid sediments.
 5. RTC Park Wetland: Working with County and municipal personnel to identify and implement strategic pollution-reduction initiatives, Grant funding has been received for a wetland restoration design and construction at the Park.
 6. CIG Grant Proposal: Working to develop shovel-ready projects, with landowner consents in hand, for inclusion in the Talbot County Capital Improvement Grant Proposal and other grant programs as they become available.