



**CHESAPEAKE BAY  
FOUNDATION**  
Saving a National Treasure

# Delaware Milestones

## 2014-15 INTERIM PROGRESS

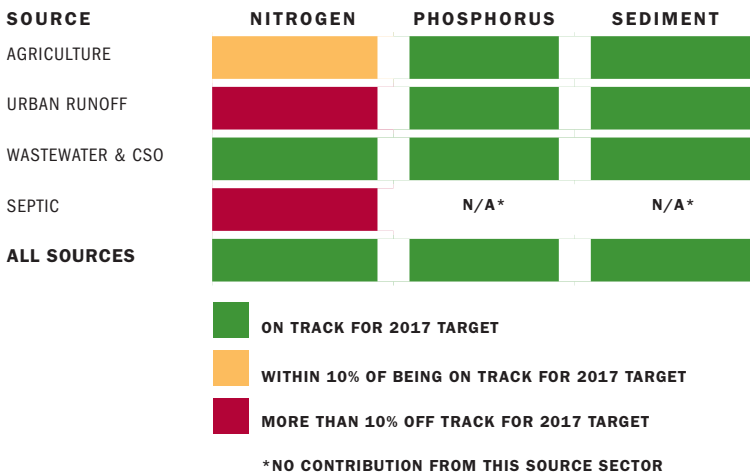


**Choose  
Clean  
Water**  
COALITION

In 2010, the Environmental Protection Agency (EPA), using its authority under the Clean Water Act, established science-based limits for nitrogen, phosphorus, and sediment for the Chesapeake Bay watershed at levels needed to restore the Bay and its tidal rivers to health. To achieve these limits, the six Bay watershed states and the District of Columbia developed, and are implementing, state-specific clean-up plans, with the goal of having practices and programs in place to achieve 60 percent of the needed pollution reductions by 2017, and 100 percent by 2025. In addition, the Bay jurisdictions have adopted milestones that describe the practices and programs they commit to implement every two years on the path to achieve the pollution limits. These two-year milestones are critical components to restoration efforts because they provide the mechanism to hold government accountable for short-term progress toward long-term pollution-reduction goals. This year is the halfway point for the 2014-2015 milestones.

For this report, the Chesapeake Bay Foundation (CBF) and the Choose Clean Water Coalition (CCWC) have taken a closer look at some of the most important pollution-reduction practices to determine whether Delaware's progress with regard to these practices is sufficient to allow the state to achieve its 2014-2015 milestone commitments and, more importantly, to achieve 60 percent implementation by 2017. Specifically, we have evaluated implementation progress for four practices: **erosion and sediment control**, **animal waste management systems**, **grass buffers**, and **tree planting**. Practices were deemed "on track", "slightly off track", or "off track" to meet 2017 goals.

EPA recently evaluated Delaware's progress to date, their findings are summarized below. While EPA's report indicates the state is mostly on track, our analysis of some of the most important practices suggests more will need to be done to meet 2017 goals.

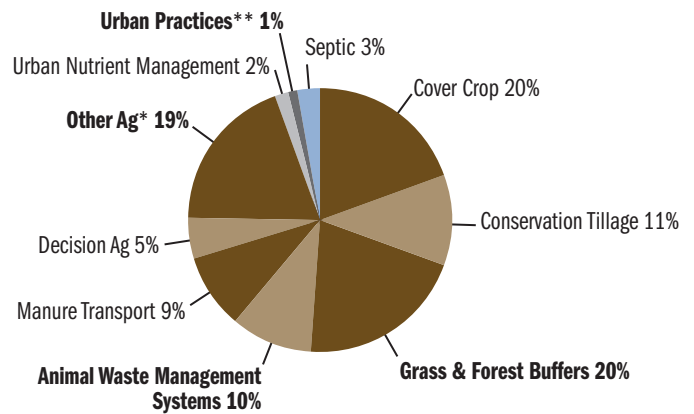


Source: [www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/RestorationUnderway.html](http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/RestorationUnderway.html)  
 Chart based on data from the Chesapeake Bay Program's 2014 Reducing Pollution Indicator:  
[www.chesapeakebay.net/indicators/indicator/reducing\\_nitrogen\\_pollution](http://www.chesapeakebay.net/indicators/indicator/reducing_nitrogen_pollution)

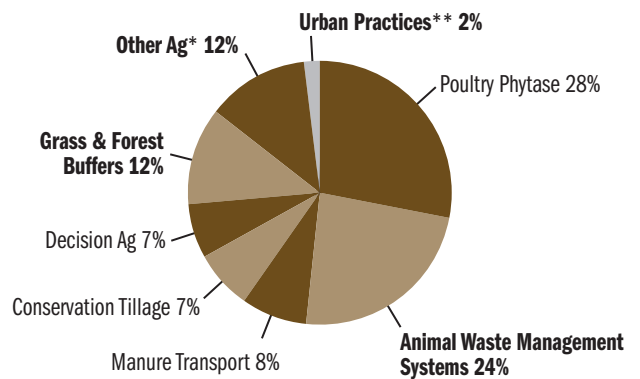
### Delaware Relative Nutrient Load Reduction

The pie charts below show the relative importance of the various best management practices in terms of pollution reductions needed by 2025. That is, the bigger the slice of pie, the more important the practice is in terms of achieving Delaware's pollution-reduction goals for nitrogen and phosphorus.

#### NITROGEN



#### PHOSPHORUS



**BOLD = EVALUATED PRACTICES**

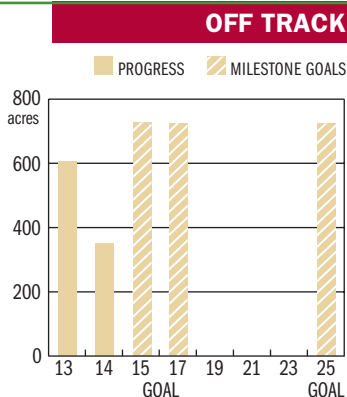
\* 'Other Ag' includes practices such as conservation plans, wetland restoration, barnyard runoff control practices, and **tree planting** that individually account for less than 5% of nutrient reductions.

\*\* 'Urban Practices' includes stormwater ponds, urban infiltration practices, and **erosion and sediment control**.  
 Source: [www.chesapeakebay.net/.../sweeney\\_bmp-source\\_wiprelativeinfluence\\_041113.pdf](http://www.chesapeakebay.net/.../sweeney_bmp-source_wiprelativeinfluence_041113.pdf)

# Assessment of Delaware's Progress on Selected Pollution-Reduction Practices

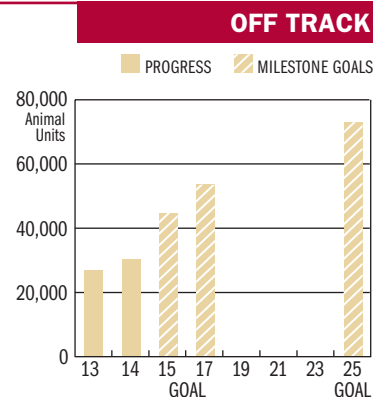
## Erosion and Sediment Control

This practice refers to controls used on construction sites for new development that are designed to minimize erosion and polluted runoff. Delaware has put in place just under half of the erosion and sediment controls it needs to reach its 2017 goal. Part of this shortfall is due to a slower rate of new development than Delaware had anticipated when it set its goal. Delaware's new Erosion and Sediment regulations went into effect in 2014. These new regulations, along with an expected rise in development, should increase implementation of this practice. However, the new regulations grandfather in many developments that would be exempt from meeting these new regulatory requirements if they are built prior to 2020. Even though these projects might be exempt under the current regulations, Delaware should encourage all new development to adopt erosion and sediment controls to reduce their impact on local streams during construction.



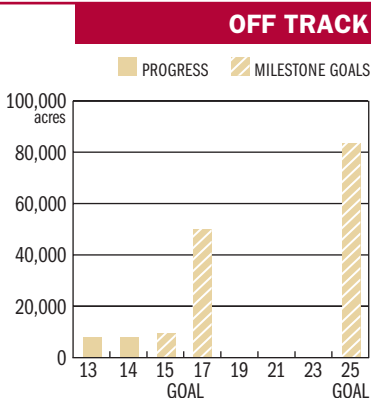
## Animal Waste Management Systems

This practice refers to proper storage and handling of manure and chicken litter. Delaware has put in place just under half of the animal waste management systems necessary to meet its 2017 goal. Part of the shortfall is due to reporting—the state believes many of the existing animal waste management systems are not being tracked because they were implemented voluntarily. The state is also grappling with identifying locations to implement these animal waste management systems and must resolve this issue in order to meet its 2017 goals.



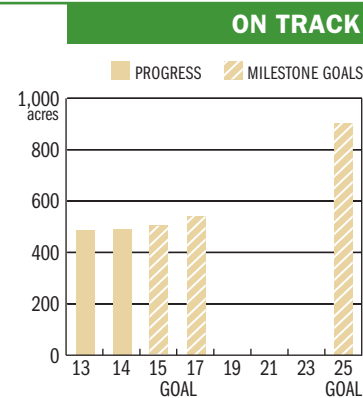
## Grass Buffers

Grass buffers are densely vegetated areas of grass on farms along streams that promote filtration, infiltration, and settling to remove pollutants before they reach nearby waterways. Delaware has implemented 2 percent of the grass buffers necessary to meet its 2017 goal. This slow pace of implementation of buffers is a region-wide problem. Part of the reason is insufficient financial incentives for farmers to take land out of production. Increased outreach and education about buffer benefits, with sufficient technical assistance are also needed. Better tracking and reporting may help Delaware close some of the implementation gap, but if the state remains off track, the state should consider alternative pollution-reduction practices.



## Tree Planting

Tree planting provides significant pollution-reduction benefits when used in an agricultural setting. Delaware has currently implemented 90 percent of its 2017 goal. Delaware has planted more than 500 acres of trees since 2009. This success can be attributed to programs like the Delaware Forest Service's "Partnership Tree Planting Grant," which awarded eight \$1,000 matching grants to nonprofit groups who own property within the Chesapeake Bay Watershed and outreach programs like their Arbor Day school poster contest "Trees are Terrific."



## Conclusions

While Delaware continues to make progress towards their pollution reductions in the Chesapeake, it faces significant hurdles to meet its 2017 goals. Improved verification protocols will help Delaware get a better picture of all the pollution controls on the ground and implementing new regulations can reduce runoff, but Delaware will need to face tough issues like how to improve and/or verify participation in voluntary agricultural pollution-control programs as we approach 2017. Further dedication of resources including staff, data gathering, and cost sharing programs will assist Delaware in meeting its 2017 goals.

