



**CHESAPEAKE BAY  
FOUNDATION**  
Saving a National Treasure

# Virginia 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 Virginia'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: **stream fencing**, **streamside buffers**, **animal waste management systems**, and **urban infiltration practices**. Practices were deemed **"on track"**, **"slightly off track"**, or **"off track"** to meet 2017 goals.

EPA recently evaluated Virginia'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.

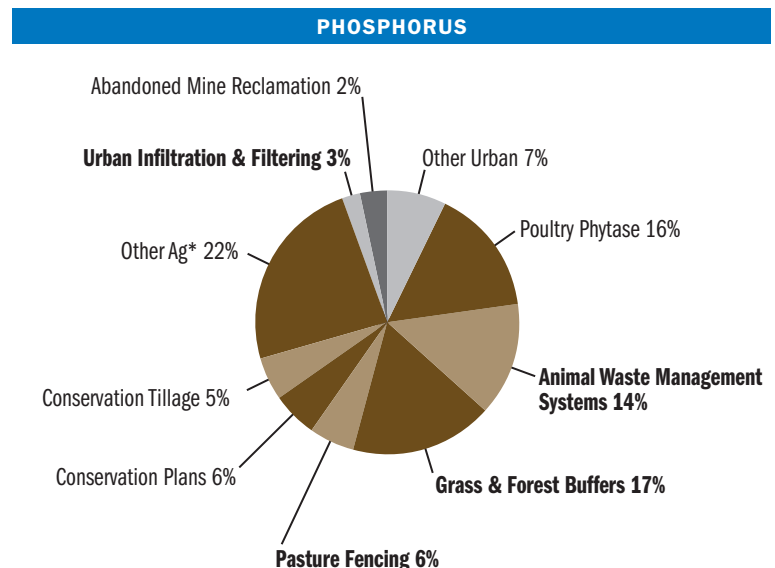
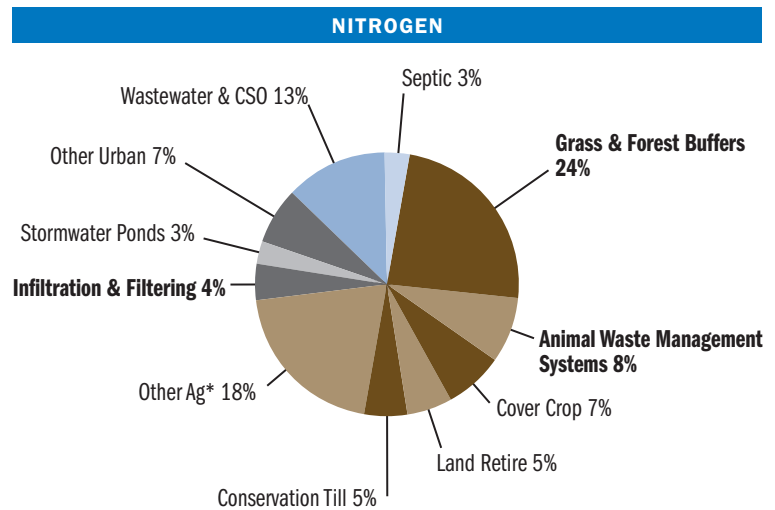
SOURCE	NITROGEN	PHOSPHORUS	SEDIMENT
AGRICULTURE	ON TRACK FOR 2017 TARGET	ON TRACK FOR 2017 TARGET	WITHIN 10% OF BEING ON TRACK FOR 2017 TARGET
URBAN RUNOFF	MORE THAN 10% OFF TRACK FOR 2017 TARGET	WITHIN 10% OF BEING ON TRACK FOR 2017 TARGET	MORE THAN 10% OFF TRACK FOR 2017 TARGET
WASTEWATER & CSO	ON TRACK FOR 2017 TARGET	ON TRACK FOR 2017 TARGET	ON TRACK FOR 2017 TARGET
SEPTIC	MORE THAN 10% OFF TRACK FOR 2017 TARGET	N/A*	N/A*
<b>ALL SOURCES</b>	ON TRACK FOR 2017 TARGET	ON TRACK FOR 2017 TARGET	WITHIN 10% OF BEING ON TRACK FOR 2017 TARGET

■ ON TRACK FOR 2017 TARGET  
■ WITHIN 10% OF BEING ON TRACK FOR 2017 TARGET  
■ MORE THAN 10% OFF TRACK FOR 2017 TARGET  
 \*NO CONTRIBUTION FROM THIS SOURCE SECTOR

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)

### Virginia 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 Virginia's pollution-reduction goals for nitrogen and phosphorus.



■ WASTEWATER TREATMENT PLANT   
 ■ URBAN   
 ■ AGRICULTURE

**BOLD = EVALUATED PRACTICES**

\* 'Other Ag' includes practices such as conservation plans, tree planting, and manure transport that individually account for less than 5% of nutrient reductions.

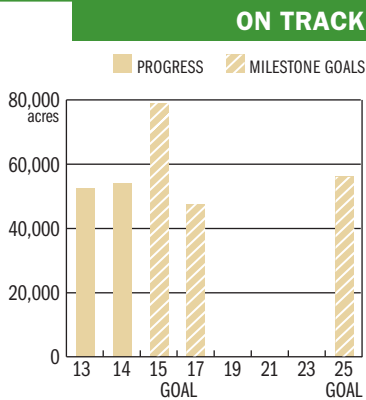
Source: [www.chesapeakebay.net/.../sweeney\\_bmp-source\\_wiprelativeinfluence\\_041113.pdf](http://www.chesapeakebay.net/.../sweeney_bmp-source_wiprelativeinfluence_041113.pdf)

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

## Stream Fencing

On the surface, it appears Virginia has already exceeded its 2017 target. But now for the rest of the story: The number of Virginia streams needing livestock fencing has been significantly underestimated. In addition, the Commonwealth currently has a backlog of farmers interested in using cost-share programs to implement stream fencing on their operations. That's good news for the Bay, local waters across the state, and farmers because preventing livestock access improves herd health, protects streambanks, and keeps manure and sediment out of streams.

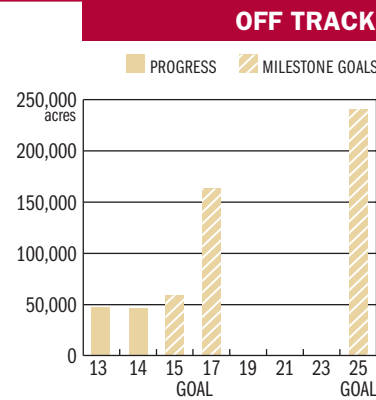
**Action needed:** Virginia must fully fund the "backlog" of needs for stream fencing and ensure regulatory programs prevent stream access.



## Streamside Buffers

Buffers provide many habitat and water-quality benefits for local streams and the Chesapeake Bay. Unfortunately, Virginia's implementation of these important conservation practices is losing steam and must be accelerated in order to reach both the 2015 and 2017 implementation goals. This is especially true for grassed buffers that are commonly implemented on agricultural lands. Although the news is better for forested buffers, where the state has reached approximately 40 percent of its 2015 goal, implementation must be increased dramatically in order to meet the 2017 goals.

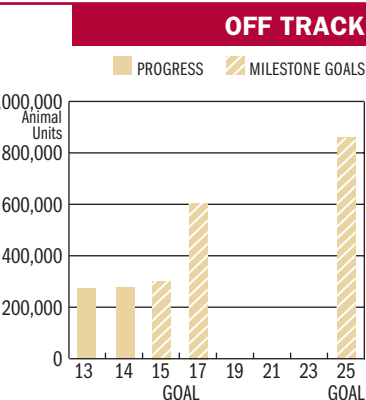
**Action needed:** Virginia should ensure that limited agriculture cost-share dollars are focused on the most cost-effective practices, particularly forest and grass buffers.



## Animal Waste Management Systems

Over one million livestock live in Virginia's portion of the Chesapeake Bay watershed, and the Commonwealth's poultry industry is growing. With a lot of animals naturally comes a lot of manure and litter. Proper storage and handling of livestock manure is achieved through the implementation of animal waste management systems (AWMS). To date, however, Virginia has only reached 14 percent of what was needed from 2013 to 2015 to reach the 2015 milestone target and is also off-track for 2017. This pace, coupled with an increase in poultry houses in the Shenandoah Valley and Virginia's Eastern Shore in the past two years, demands Virginia's attention.

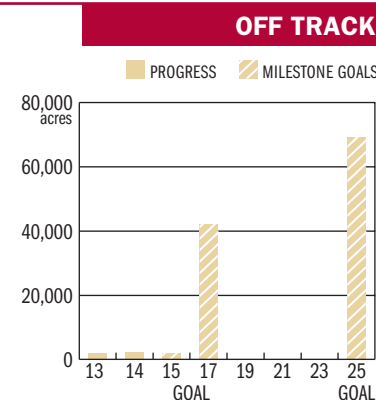
**Action needed:** Virginia should identify long-term, stable sources of revenue for agriculture cost-share practices.



## Urban Infiltration Practices

Stormwater is the only major source of pollution to the Chesapeake Bay that is increasing. Infiltration practices that allow polluted runoff to soak back into the ground, as opposed to running off, are critical to nitrogen and phosphorus reductions by cities and residential areas because they are among the most effective at reducing pollution. Virginia has achieved its 2015 milestone goal, unfortunately, this pace is woefully inadequate to achieve their 2017 goal. Important state programs like the Stormwater Local Assistance Fund provide an opportunity for Virginia to incentivize the urban sector to implement infiltration practices.

**Action needed:** Virginia should accelerate completion of the final six Municipal Separate Storm Sewer System (MS4) permits for localities in Hampton Roads and fully fund local government cost-share needs through the Stormwater Local Assistance Fund.



Note: Virginia's 2017 goals are calculated as 2009 implementation plus 60 percent of the difference between 2009 implementation and the 2025 implementation goal.

## Conclusions

Virginia has made sound investments in its pollution-reduction activities that are leading to water-quality improvements throughout the state. These investments include hundreds of millions of dollars to upgrade wastewater treatment plants, funding for urban pollution-reduction strategies, and an increase in farm conservation practices. These activities have laid a solid foundation for the state to build on past success and to now focus on those pollution-reduction strategies that require higher implementation rates in order to ensure success.

Our review of the 2014-2015 milestones clearly shows that Virginia has opportunities to speed the pace of implementation and ensure the state remains on track for 2025. Once again, Virginia's emphasis on stream fencing shows how a focused and funded strategy can be successful. However, both the number of streams still without fencing and the interest by the agricultural community indicate that opportunities abound for further implementation of this practice.

This milestone review also highlights the need to increase the pace of pollution reduction in the urban landscape. As often mentioned, this is the only significant source of pollution still increasing. Virginia has recently established a Stormwater Local Assistance Fund in order to assist localities in implementing urban practices to improve water quality. In addition, many localities have adopted stormwater utilities to help fund practices that are so important to local water quality.

Although Virginia is currently on track to meet many of the 2017 pollution reduction goals, this milestone review clearly indicates numerous opportunities exist to increase practice implementation and improve water quality. With continued growth in both agriculture and the urban landscape, every opportunity for implementation of pollution-reduction strategies must be identified. These opportunities must be seized or else the solid foundation that Virginia has worked hard to build may begin to erode.

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