



# The Virginia Chesapeake Bay Showcase Watershed:

## Smith Creek

### Overview

President Obama's Executive Order 13508 issued in May 2009 charges the Federal government with exercising greater leadership in restoring the Chesapeake Bay and its tributaries. A complete Bay cleanup is targeted for 2025 with activities broken into two-year milestones.

To support this effort, USDA Natural Resources Conservation Service (NRCS) and its partners are helping farmers voluntarily implement conservation practices to reduce nutrient and sediment runoff into the Bay. NRCS funding through the 2008 Farm Bill Chesapeake Bay Watershed Initiative (CBWI) provides \$72 million over the next three years to reduce pollution from agricultural lands.

NRCS is establishing three Showcase Watersheds — Smith Creek in Virginia, Upper Chester in Maryland, and the Conewago in Pennsylvania. These watersheds are designed to show what can be accomplished by bringing people and groups together to solve natural resource problems in a targeted area. Successful approaches learned here can be replicated in other watersheds.

### Why Smith Creek?

- Many public and private groups currently working in the watershed provide a broad base of support for collaborative conservation efforts.
- The variety of agricultural enterprises will enable NRCS to demonstrate a wide array of conservation systems.
- Focusing federal technical and financial assistance will help accelerate the Total Maximum Daily Load (TMDL) plan implementation already underway.

### *What is different or unique about the Showcase Watershed?*

- There will be 100 percent outreach to all agricultural landowners.
- Farmers will participate in developing approaches, selecting priority practices, and serving as conservation ambassadors.
- An NRCS coordinator will oversee planning, implementation, and evaluation activities.
- Funds from Federal, State and private sources will be pooled to increase landowner participation and cost-share rates.
- Innovative approaches, such as progressive planning, increased stream fencing options, and focused monitoring on impaired stream segments, will be employed.
- Partners are already providing significant staff and funding investments.

### Smith Creek Profile

The Smith Creek Watershed covers 67,335 acres and includes four subwatersheds:

- Dry Fork
- Smith Creek - Mountain Run
- Smith Creek - War Branch
- Smith Creek - Gap Creek

Seventy-five percent of the watershed is in Rockingham County and 25 percent is in Shenandoah County. Of 286.9 miles of streams, 52.54 miles are impaired (18 percent). Karst dominates the area with 329 sinkholes and 35 caves.

Thirty-three percent of the land is prime or important farmland. There are 32 permitted commercial poultry operations, 18 Grade A dairies (averaging 100 head), 30 beef feedlots, and many beef cattle operations (averaging 50 head) in the area.

From 1992 to 2001, almost 2,300 acres of agricultural land were converted to other uses.

### Conservation Programs

NRCS Cooperative Conservation Partnership Initiative (CCPI) provides funding for targeting resources on a watershed basis. CCPI emphasizes a "systems approach" to address water quality resource concerns.

Landowners are encouraged to implement multiple practices and management techniques that work together to address the nitrogen and phosphorous generated from agricultural runoff.



**Riparian Buffer**



**No-Till Farming Practice**

Other funds will be available from the Environmental Quality Incentives Program (EQIP), Conservation Innovation Grants, (CIG), Conservation Reserve Enhancement Program (CREP), the Environmental Protection Agency's (EPA) 319 Program, and the Virginia Water Quality Improvement Program. (See list of core and supporting practices at [www.va.nrcs.usda.gov/programs/](http://www.va.nrcs.usda.gov/programs/).)

## Project Implementation

NRCS will implement the Smith Creek Watershed project through the EQIP, CBWI, CCPI, CIG, and other programs, beginning in Fiscal Year 2010. Anticipated resources for implementing practices include:

- \$600,000 for **EQIP/CBWI/CCPI**
- \$800,000 in **National Fish and Wildlife Foundation (NFWF)** grants (\$150,000 has been set aside to increase cost sharing to 90 percent)
- \$500,000 in **Chesapeake Bay Funders Network** grants

Implementation of this project will reduce nitrogen, phosphorous, and sediment contributions from:

- Soil erosion
- Over application of nutrients
- Waste from confined livestock operations
- Poorly managed pastures
- Uncontrolled access to streams

Best management practices to address these resource concerns include riparian buffers, exclusion of livestock from streams, rotational grazing, alternative watering systems, waste storage facilities and nutrient management.

The State's TMDL implementation plan will address contamination from failing septic systems, domestic pets, and municipal sewage treatment plants.

This watershed contains cold springs that provide native trout habitat. Trout Unlimited is already working here to enhance and restore trout fisheries.

The project will also improve aquatic habitat by reducing sediment contributions. Best management practices to address sediment include cover crops, no-till, and riparian buffers.

## Outcome Measurements

The Smith Creek Watershed will include water quality monitoring to evaluate the environmental benefits and outcomes from our partnership efforts over the three-year project.

Success will be determined through landowner participation, adoption of conservation practices, collaboration with partners, and effective use of financial and technical resources on a watershed level.

**PS59 - Dry Fork**  
**PS60 - Smith Creek, Mountain Run**  
**PS61 - Smith Creek, War Branch**  
**PS62 - Smith Creek, Gap Creek**

## The Role of Partners

Partners provide guidance and direction for the project. They leverage monies with matching funds for cost sharing on best management practices.

They help establish goals and objectives and identify priority practices. They commit technical and financial resources to expand outreach efforts and increase program participation. Partners will:

- Provide information and conduct site visits.
- Serve on the Watershed Steering Committee and the Core Team.
- Submit proposals for CCPI and/or CIG funding.
- Target financial and technical resources toward the watershed.
- Assist with tracking, monitoring and evaluating progress in meeting water quality goals.

## Contact Information

Questions or concerns should be emailed to Richard Fitzgerald, Smith Creek Watershed Coordinator, at [richard.fitzgerald@va.usda.gov](mailto:richard.fitzgerald@va.usda.gov). Also visit the Shenandoah RC&D website at [www.shenandoahrcd.org/](http://www.shenandoahrcd.org/).

