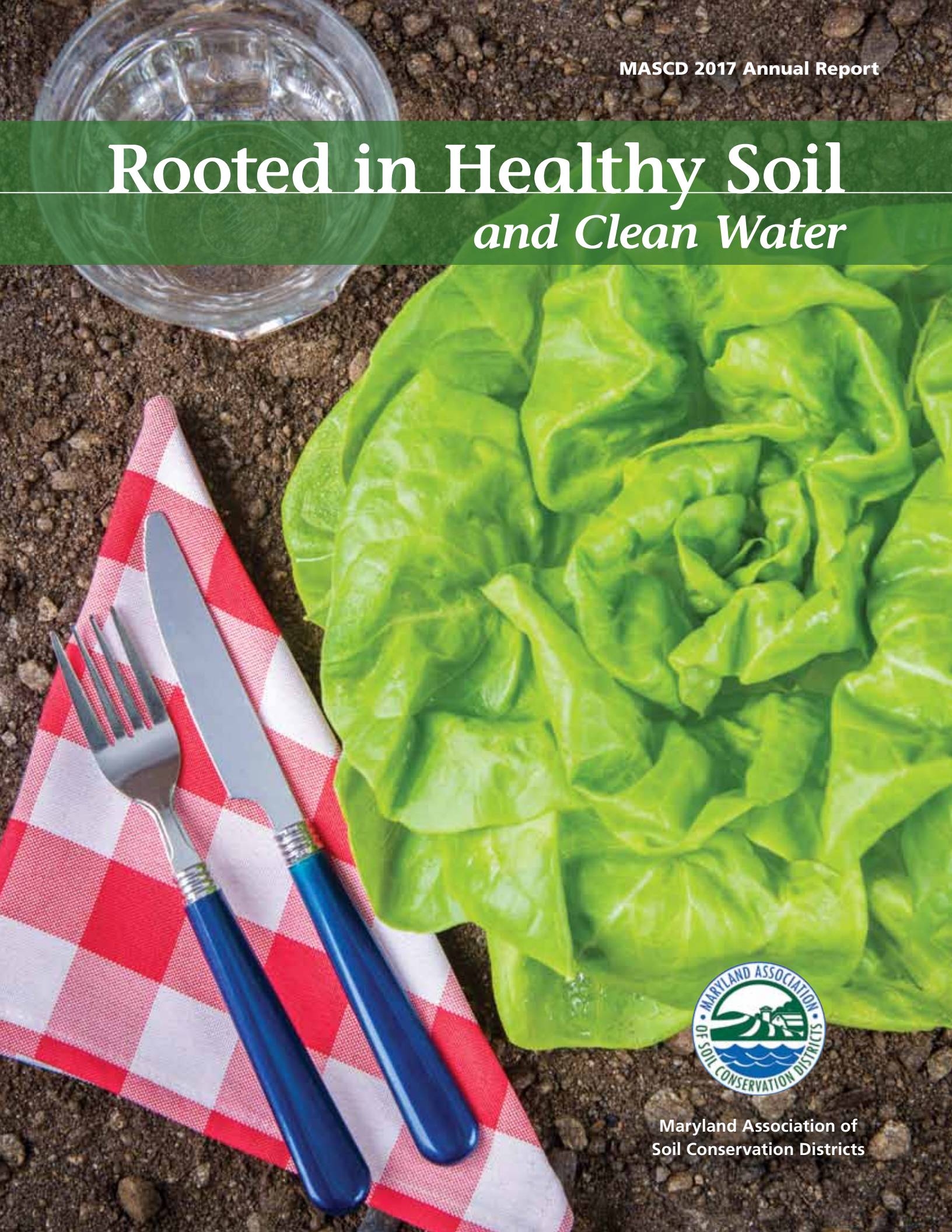


Rooted in Healthy Soil *and Clean Water*



Maryland Association of
Soil Conservation Districts



Message from the President and Executive Director

While we are encouraged to see increased interest in soil health by our federal, state, and local conservation partners, we can assure you that protecting and enhancing valuable soil resources is not new to soil conservation districts. For more than 75 years, Maryland's soil conservation districts have been helping farmers install best management practices on their farms that promote healthy soil and clean water—the foundation for healthy food production.

As we work to feed a growing population that is keenly interested in where their food comes from, how it is raised, the environmental impacts of production, and its health and nutritional aspects; it is more important than ever that we continue research and field demonstrations. To that end, we are pleased to report that the Maryland Department of Agriculture has secured a five-year, \$1 million Regional Conservation Partnership Program (RCP) grant from the US Department of Agriculture's Natural Resources Conservation Service to promote the latest technological advances in soil health. Under this grant, soil conservation districts in Caroline, Kent, Queen Anne's, and Talbot counties will provide technical assistance to farmers to test state-of-the-art practices such as variable rate nutrient application equipment and edge-of-field tools to reduce nutrient loss and improve soil health. We get pretty excited when it comes to promoting soil health. In fact, district supervisors in Talbot County are already experimenting with this new wave of promising soil health practices on their own farms.

Although soil health seems to have become the new buzzword, Maryland farmers have been implementing soil health practices for decades. Cover crops have long been the standard bearer for improving soil health and protecting waterways from erosion and nutrient runoff. Maryland farmers planted a record 560,000 acres of cover crops on their fields during the 2016-2017 planting season and once again exceeded Maryland's Chesapeake Bay cleanup goal for this practice.

Additionally, 2017 marked the halfway point to the 2025 deadline for restoring the Chesapeake Bay. Maryland agriculture, with the help of the state's 24 soil conservation districts, has met or exceeded all of its short-term Bay cleanup objectives and has practices in place to achieve the required 60 percent of its long-term pollution reduction goals.

When you make your living off the land, it's easy to see the connection between healthy soil and clean water. This conservation ethic carries over to our urban erosion and sediment control programs that continue to make a difference for local water quality in our towns and communities.

Please read on to learn more about our accomplishments in 2017. We urge elected officials who are responsible for district funding to support our soil and water conservation programs and to think about us when enjoying a homegrown meal with family and friends. With your continued support, all Marylanders can be assured that locally grown food is rooted in healthy soil and clean water.

Charles Rice, President

Lindsay Thompson, Executive Director

Maryland Association of Soil Conservation Districts

Mission Statement: *The Maryland Association of Soil Conservation Districts (MASCD) serves as the voice for Maryland's 24 soil conservation districts on statewide issues. Our mission is to promote practical and effective soil, water, and related natural resource programs to all citizens on a voluntary basis through leadership, education, cooperation, and local direction provided by soil conservation districts.*



2017

THE YEAR IN REVIEW



Lee McDaniel Honored

Lee McDaniel, a Harford County farmer and former MASCD president, received the 2017 MASCD President's Award for his stewardship ethic and his many years of service to the Harford Soil Conservation District, MASCD, and the National Association of Conservation Districts where he serves as the immediate past president.



Maryland Hosts National Envirothon Competition

Maryland was proud to host the 2017 National Envirothon, North America's largest high school environmental education competition. The week-long event was held at St. Mary's University in Emmitsburg and featured teams from 45 states and several provinces in Canada and China. Teens competed for top honors and \$30,000 in cash prizes. The Maryland team placed tenth overall.



Half a Million Acres and Growing

This year's cover crop planting broke another record with Maryland farmers planting more than 560,000 acres of small grains on their fields to recycle unused plant nutrients, control erosion, protect water quality, and improve soil health. Maryland leads the Bay states in acres of cover crops planted.



Celebrating 75 Years

The Dorchester, St. Mary's, Wicomico, and Worcester soil conservation districts all celebrated 75 years of helping Maryland farmers and land managers protect natural resources.



Farm Stewardship Program Expands to Every Maryland County

The Farm Stewardship Certification and Assessment Program (FSCAP) reached another milestone in 2017, boasting at least one certified farm in each of Maryland's 23 counties. This unique conservation recognition program certifies farmers who have demonstrated a superior level of stewardship. To date, the program has certified 152 conservation stewards who are protecting 60,241 acres statewide.

Soil Conservation Districts Protecting Chesapeake Bay



Soil conservation districts help farmers install best management practices on their farms that meet water quality milestone goals outlined in Maryland’s Watershed Implementation Plan to restore clean water in streams, rivers, and the Chesapeake Bay by 2025.

Maryland agriculture is making tremendous strides in protecting the Bay and its tributaries from sediment and nutrient runoff. Since the Environmental Protection Agency (EPA) established the Chesapeake Bay Total Maximum Daily Load (TMDL) in 2010, Maryland agriculture has met or exceeded all of its short-term “milestone” pollution reduction objectives. In 2017, the program’s halfway point, EPA is conducting a midpoint assessment to review progress and determine if jurisdictions have practices in place to achieve 60 percent of their pollution reduction goals.

Maryland agriculture has exceeded its midpoint assessment implementation goals through the stepped-up installation of best management practices including streamside buffers, livestock fencing, and manure storage structures. Best management practices installed with public funds are reported to EPA using the Maryland Department of Agriculture’s Conservation Tracker database management system. Soil conservation districts continue to work with farmers to verify practices installed with private funds so that they can be accounted for in the Bay Model that tracks progress.

| CHESAPEAKE BAY CLEAN-UP | | | |
|--|--|--|--|
| | | <i>Progress through June 2017*</i> | |
| ANNUAL MILESTONE | Annual Goal Due June 30, 2017 | Status As of June 30, 2017 | Percent of Annual Goal Achieved |
| Cover Crops | Plant 417,014 acres of cover crops each year | 561,344 acres planted during 2016–2017 planting season | 134% |
| Manure Transport | Annually transport 51,000 tons of excess poultry litter or livestock manure to farms or alternative use facilities that can use the manure safely and in accordance with nutrient management plans | 241,941 tons of manure transported in 2017 | 474% |
| Soil Conservation and Water Quality Plans | Develop plans for 1,026,413 acres | 923,896 acres planned | 90% |
| MIDPOINT MILESTONE | 2017 Midpoint Assessment Goal (Due June 30, 2017 / Covers Period Between 2009 and 2017) | Status As of June 30, 2017 | Percent of Midpoint Assessment Goal Achieved |
| Off-Stream Watering Without Fencing | Construct 4,809 acres of off-stream watering sources for livestock by 2017 | 20,085 acres protected | 418% |
| Retirement of Highly Erodible Land | Retire 2,554 acres of highly erodible land by 2017 | 9,606 acres retired and planted with protective vegetation | 376% |
| Streamside Forest Buffers | Plant 927 acres of forest buffers next to streams by 2017 | 1,697 acres planted | 183% |
| Streamside Grass Buffers | Plant 2,273 acres of grass buffers next to streams by 2017 | 5,139 acres planted | 226% |
| Waste Storage Structures/ Livestock | Construct 144 livestock waste storage structures by 2017 | 402 structures installed | 279% |
| Waste Storage Structures/ Poultry | Construct 31 poultry waste storage structures by 2017 | 149 structures installed | 481% |

*Progress includes practices installed with funds from the Maryland Agricultural Water Quality Cost-Share Program and USDA’s Natural Resources Conservation Service.

On Farms

HEALTHY SOIL STARTS HERE

Soil Conservation and Water Quality Plans also known as “farm plans” are at the root of our environmental conservation efforts. Unlike nutrient management plans that deal exclusively with fertilizer and manure resources, farm plans identify and prioritize natural resource concerns for the entire farm. They provide farmers with a blueprint for making environmental improvements as time, need, and money allow.

Farm plans are developed by a team of soil conservation professionals working in the local soil conservation district office. A typical farm plan includes land use maps, soils information, a complete inventory of natural resources, engineering notes and other supporting information. Because each farm is unique, no two farm plans are the same. Individual plans outline best management practices that can be installed by the farmer to control soil erosion, manage manure resources, protect water quality and enhance wildlife habitat on farmland. Cover crops and streamside buffers are often recommended to prevent nutrients from entering waterways. Structural practices such as heavy use areas and manure storage facilities help livestock



State-of-the-art poultry houses are bordered by a field of cover crops in Queen Anne’s County.

operations protect water quality and comply with environmental regulations. Farm plans are updated as farming operations and production objectives change.

Due to their importance in protecting water quality, farm plans are included in Maryland’s Chesapeake Bay milestone commitments. The Federal Food Security Act requires farm plans for all highly erodible lands enrolled in its conservation programs. The plans also are required on farmland enrolled in the Maryland Agricultural Land Preservation Program and on farmland located in the Chesapeake and Atlantic Coastal Bays Critical Area. In addition, the Maryland Department of the Environment requires certain livestock and poultry farmers to implement Soil Conservation and Water Quality Plans

as part of its permitting process.

In 2017, soil conservation specialists working in Maryland’s 24 soil conservation districts developed 1,201 farm plans for 60,104 acres of land. Another 775 plans were updated to protect an additional 49,623 acres. Together, these plans included 2,262 best management practices (excluding cover crops and manure transport) to control soil erosion, manage nutrients, and protect water quality.

HELPING CONSERVATION TAKE ROOT

It costs money to install best management practices. When profit margins are slim due to too much or too little rain, uninvited insect pests, poor seed quality, low commodity prices, or any number of unforeseeable circumstances, the question of how to pay for an environmental improvement becomes even more challenging. Soil conservation districts help farmers sort through the maze of local, state, and federal cost-share, grant, and loan programs available to help them install best management practices on their farms. In 2017, soil conservation districts helped Maryland farmers obtain approximately \$49 million in conservation grants through the following programs:

Maryland Department of Agriculture

Maryland Agricultural Water Quality Cost-Share Program (MACS)—Helped farmers secure \$33.9 million in grants to install 2,491 conservation projects on their farms to control

Soil conservation technician Nancy LaRoche surveys for best management practices on a farm in St. Mary’s County.



Meet Maryland's Soil Health Champions

Maryland is a small state geographically, but our farmers are big on promoting healthy soils. The National Association of Conservation Districts (NACD) has recognized four Maryland farmers as Soil Health Champions.

NACD created the Soil Health Champions Network in 2015 to promote soil health education and outreach among American farmers, ranchers, and forestland owners. Today, the Network includes more than 170 landowners and operators across the United States who are implementing conservation practices on their land and championing the benefits of soil health within their communities. NACD's goal is to have a champion from every state and U.S. territory.

Soil Health Champions have working relationships with their local soil conservation districts and USDA service centers. Many are community leaders and early adopters of conservation practices. Get to know Maryland's Soil Health Champions. Visit <http://www.nacdnet.org/soil-champs/northeast/>



Steven Darcey

Edgewood Farm, Prince George's County, Maryland
A 4th generation farmer and FSCAP-certified steward, Steve has planted grass buffers to protect all wetlands, streams, and ponds on his farm. He uses a no-till system to renovate his horse pastures and reduce soil erosion. Compost from his stable operation is used to improve the soil.



Keith Ohlinger

Heritage Hill Farm, Woodbine, Maryland
A FSCAP certified steward and associate supervisor for the Howard Soil Conservation District, Keith uses rotational grazing to improve pasture health for his herd of beef cattle. He manages his land without the use of commercial fertilizers and pesticides and uses compost generated by his animals' manure to improve the soil. "Soil health is really the key to everything," according to Keith.



Michael Heller

Manager, Clagett Farm, Upper Marlboro, Maryland
FSCAP certified steward, Michael Heller has managed Clagett Farm for the Chesapeake Bay Foundation for more than thirty years. Michael plants cover crops year-round to improve the soil and grows vegetables in alternate strips to prevent erosion. He uses prescribed grazing to improve soil health and composts the manure produced by the farm's cattle and sheep. Potted trees grown on the farm are planted throughout the watershed as stream buffers to prevent erosion.



Hank Suchting

Branchwater Farm, Reisterstown, Maryland
A supervisor for the Baltimore County Soil Conservation District, Hank has installed stream crossings, fencing, a watering facility, and a covered heavy use area at his beef cattle operation to reduce erosion, protect water quality, and improve soil health.

soil erosion, reduce nutrient runoff, and protect water quality. These projects are preventing an estimated 3.5 million pounds of nitrogen and 142,438 pounds of phosphorus from entering Maryland waterways. A record-setting cover crop planting of 561,344 acres is responsible for the bulk of the nitrogen and phosphorus savings.

USDA-Natural Resources Conservation Service

Environmental Quality Incentives Program (EQIP)—Helped farmers obtain \$10.3 million in federal cost-share grants to protect natural resources on 12,882 acres.

Regional Conservation Partnership Program (RCPP)—Helped farmers obtain \$3.3 million in financial assistance to increase the restoration and sustainable use of soil, water, wildlife, and related natural resources on 4,801 acres.

Agricultural Conservation Easement Program (ACEP)—Helped farmers obtain \$1.3 million in financial assistance to conserve working agricultural lands and wetlands on 141 acres.

Agricultural Management Assistance Program (AMA)—Helped farmers obtain \$273,220 to address water management resource concerns on 185 acres.

Conservation Stewardship Program (CSP)—Helped farmers obtain \$129,235 in financial assistance to maintain and improve existing conservation systems and adopt additional conservation activities to address priority resources concerns on 9,900 acres.



MASCD is a proud sponsor of Maryland

Public Television's locally produced show, **Maryland Farm & Harvest**. Now in its fifth season, the show takes viewers around the state to see and experience what it's like to run a 21st century farm – from technological advances and conservation challenges to age-old complications such as weather hardships. Watch online at mpt.org/farm.

In Cities and Towns



A bioretention stormwater management pond protects water quality in Talbot County.

SPREADING OUR ROOTS— CONTROLLING RUNOFF IN OUR TOWNS AND CITIES

Erosion and Sediment Control Plan Reviews

Farm fields are not the only areas vulnerable to soil erosion. Any time a bulldozer strikes the earth, a patch of forest is cleared to build a new house, or the soil is exposed and graded to expand a highway, the potential for sediment and nutrient runoff increases. Soil conservation districts work to ensure that these urban threats to water quality are addressed.

Stream restoration project at Antietam Creek in Washington County.



Since 1972, soil conservation districts have been authorized to review and approve erosion and sediment control plans for construction and land development projects in their counties. Reviews are performed by urban planners who work with builders, engineers, and zoning officials to make certain that safeguards are in place to minimize soil erosion and nutrient runoff. In 2017, soil conservation districts reviewed 12,479 erosion and sediment control plans for construction projects on 52,718 acres. Just under half of these plans were approved.

Urban Compliance Activities

Soil conservation districts in Allegany, Calvert, Caroline, Cecil, Frederick, St. Mary's, and Washington counties perform compliance activities for the Maryland Department of the Environment's Sediment, Stormwater and Dam Safety Program. This local oversight provides developers with easy access to compliance officials and faster project turnaround times. In 2017, districts performed 335 pre-construction meetings and 818 inspections to ensure that erosion and sediment control measures are installed properly and protecting water quality.



Educating youth on the importance of healthy soil, clean water, and nutritious food is a top priority.

Education Programs

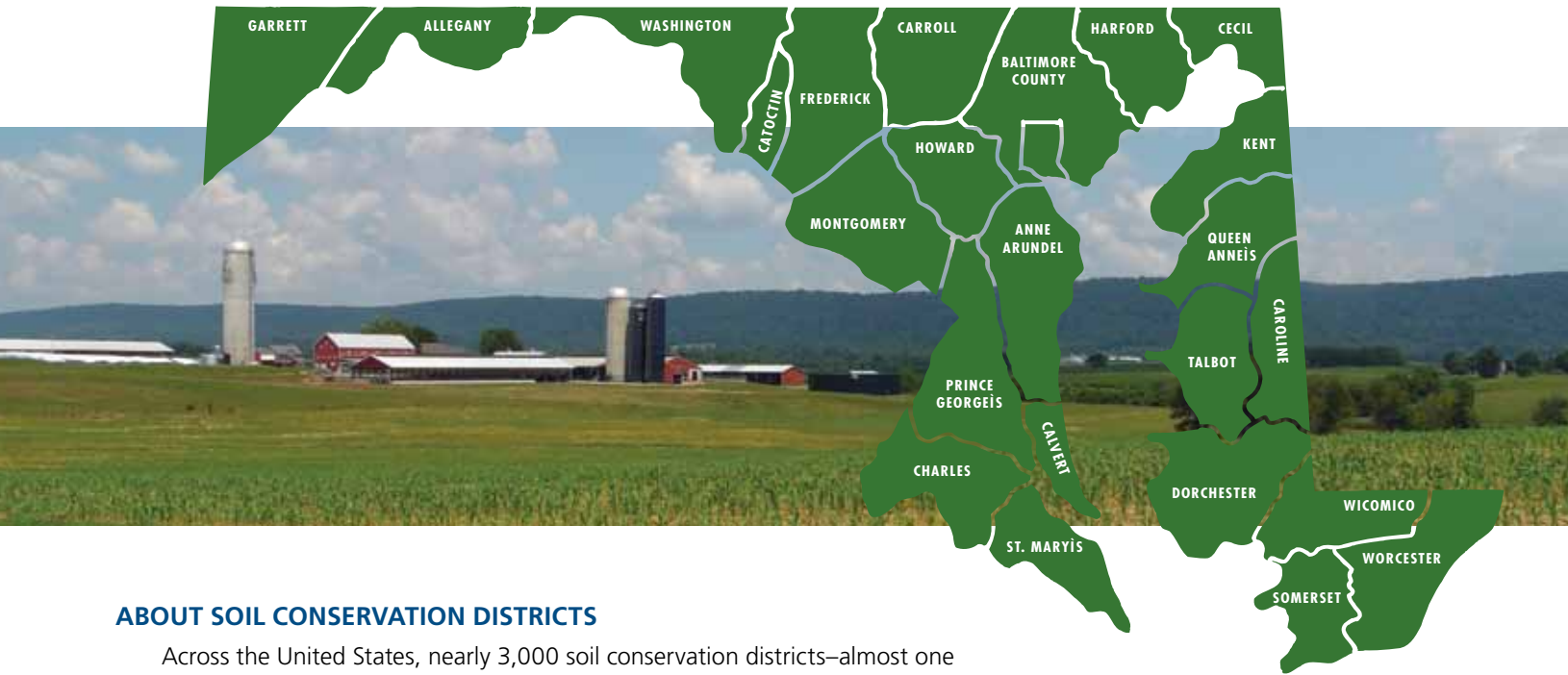
PLANTING THE SEEDS OF CONSERVATION

Educating farmers, homeowners, students, and their families on farming and lawn and garden practices that promote clean water, productive soil, and healthy food systems is a big part of what we do.

Over the course of the year, districts sponsored workshops, field days, and demonstration projects to educate farmers about new equipment, innovative best management practices, and the latest techniques in pasture management.

Districts also help local school districts comply with environmental education mandates. In 2017, staff responded to dozens of requests for classroom visits, career workshops, farm tours, and demonstrations at environmental education centers.

A highlight of our outreach efforts is the Maryland Envirothon, an outdoor natural resources competition for high school teens interested in learning more about Maryland's environment. Teens compete at the local, state and national levels. In 2017, Maryland hosted the National Envirothon competition featuring teams of high school students from 45 states and several Canadian and Chinese provinces. The week-long competition was held at St. Mary's University in Emmitsburg. Teens competed for top honors and \$30,000 in cash prizes. The Maryland team was among the top ten finishers.



ABOUT SOIL CONSERVATION DISTRICTS

Across the United States, nearly 3,000 soil conservation districts—almost one in every county—are helping landowners conserve land, water, forests, wildlife, and related natural resources on their properties.

Here in Maryland, more than 120 volunteers serve in appointed positions on the governing boards of soil conservation districts. They work directly with thousands of cooperating land managers across the state, and their efforts impact almost two million acres of private land. The staff of a typical soil conservation district office includes a district manager, district conservationist, engineers, agricultural planners, technicians, soil scientist, urban reviewers, and administrative staff. Staff and operating budgets are usually funded through a mix of federal, state, and county funding sources as well as grants.

Soil conservation districts carry out many federal and state mandates at the local level and serve as the agricultural representative on local, regional, and state-wide environmental task forces and committees charged with protecting natural resources and the Chesapeake Bay.

MARYLAND'S CONSERVATION PARTNERSHIP

Soil conservation districts are members of Maryland's Conservation Partnership, a coalition of federal, state, and local agriculture agencies dedicated to protecting and conserving natural resources and promoting Maryland agriculture.

- Maryland Association of Soil Conservation Districts
- Maryland Department of Agriculture
- State Soil Conservation Committee
- USDA Natural Resources Conservation Service
- USDA Farm Service Agency
- University of Maryland Extension

MARYLAND'S SOIL CONSERVATION DISTRICTS

| | |
|-------------------|----------------------|
| Allegany | 301-777-1747, ext. 3 |
| Anne Arundel | 410-571-6757 |
| Baltimore County | 410-527-5920, ext. 3 |
| Calvert | 410-535-1521, ext. 3 |
| Caroline | 410-479-1202, ext. 3 |
| Carroll | 410-848-8200, ext. 3 |
| Catoctin | 301-695-2803, ext. 3 |
| Cecil | 410-398-4411, ext. 3 |
| Charles | 301-638-3028 |
| Dorchester | 410-228-5640 ext. 3 |
| Frederick | 301-695-2803, ext. 3 |
| Garrett | 301-334-6950, ext. 3 |
| Harford | 410-638-4828 |
| Howard | 410-313-0680 |
| Kent | 410-778-5150, ext. 3 |
| Montgomery | 301-590-2855 |
| Prince George's | 301-574-5162, ext. 3 |
| Queen Anne's | 410-758-3136, ext. 3 |
| St. Mary's | 301-475-8402, ext. 3 |
| Somerset | 410-621-9310 |
| Talbot | 410-822-1577, ext. 5 |
| Washington County | 301-797-6821, ext. 3 |
| Wicomico | 410-546-4777, ext. 3 |
| Worcester | 410-632-5439, ext. 3 |



Maryland Association of Soil Conservation Districts

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