



Loudoun Soil and Water Conservation District ANNUAL REPORT 2008

Letter from the Chairman....

On behalf of the Directors and staff of the Loudoun Soil and Water Conservation District, I am pleased to present our Annual Report. The following pages provide an overview of our programs as well as a summary of our efforts during the past year.

One of our most important programs in 2008 was the Virginia Agricultural Best Management Practices (BMPs) Cost-Share Program. Although only part of a much larger cooperative effort of local, state, and federal agencies to clean up the Chesapeake Bay, the program does much to help agricultural operators and landowners to implement BMPs specifically designed to improve water quality and keep the soil on the land. I encourage you to review pages 2-5 for more information about this opportunity as well as other rural and urban programs and activities.

Educational outreach including classroom presentations, field trips, exhibits, workshops, and mini-grants to educators is always a very important part of the District's mission. 2008 highlights included our Rain Barrel Projects and our involvement with the Loudoun Environmental Stewardship Alliance (LESA). If, after reading our report, you find that you would like to schedule a special program/activity for a class, a group, or even a neighborhood, please call our office for information.

I want to take this opportunity to publicly welcome our new Directors, Peter Rush (Leesburg) and Chris Simmons (Ashburn). Each was elected in the November 2007 general election for a four year term of office beginning January 1, 2008.

In closing, I wish to thank the Virginia Department of Conservation and Recreation, USDA-Natural Resources Conservation Service, USDA-Farm Service Agency, Virginia Cooperative Extension Service, Virginia Department of Forestry, County of Loudoun, and the many individuals who worked with us during the past year. By working together, we have the best opportunity to achieve a cleaner, healthier environment for all.

Sincerely,


James B. Christian
Chairman

Who we are

Soil and water conservation districts are an important part of the nationwide partnership of federal, state, and local agencies working together to conserve natural resources and improve water quality. The Loudoun District is one of 47 districts in Virginia. The districts, which are political subdivisions of the Commonwealth of Virginia, are alike in many ways, but each one has unique aspects.

The Loudoun District works with Federal, State, and local authorities and the private sector to address Loudoun's soil and water conservation needs. It promotes educational and technical programs in the field of natural resources conservation, provides advice on the handling of conservation issues to governmental entities and private citizens, and administers programs aimed at specific goals.

District operations are directed by a Board of five Directors (three elected in the general election process, two appointed by the Virginia Soil and Water Conservation Board) and carried out by professional staff. Conservation efforts are further enhanced by the District's Associate Directors and the programs of cooperating agencies.

State and local appropriations, grants, and proceeds from District special programs account for the District's income. The District is professionally audited on a regular basis.

District Directors, staff, and representatives of cooperating agencies meet the first Wednesday of each month. The public is welcome to attend. Board work sessions and standing committee meetings are held as needed.

Mission Statement: The Loudoun Soil and Water Conservation District is responsible for the conservation work within its boundaries (Loudoun County)*. The mission of the District is to provide leadership in recognizing and addressing soil and water conservation issues and problems, both existing and potential, and to promote and develop education and technical programs which will meet the agricultural and urban conservation needs of our District.

*Soil and Water Conservation Law, Code of Virginia, Title 10.1.500

Vision Statement: The Loudoun Soil and Water Conservation District will be the medium through which individuals, organizations, and agencies promote and support a conservation ethic for land, water, and other natural resources to preserve the environment, aesthetics, and community assets of Loudoun County.



Conservation Programs and Technical Assistance: Rural

The rural and urban conservation programs of the Loudoun Soil and Water Conservation District are specifically designed to help protect and enhance natural resources. Principal concerns are water quality and quantity of surface and ground water and the control of point source and nonpoint source pollution, soil conservation and prevention of erosion, and the wise use of forests and the preservation of tree cover. FY08 efforts included the following:

Ag BMP Programs

The Virginia Agricultural BMP (Best Management Practices) Cost-Share and Tax Credit Program administered by the District, is the largest program of its type in Loudoun County. In FY08, \$273,324.41, including \$42,492.00 related to the 319/Catocin TMDL Program and \$20,478.75 related to the USDA Conservation Reserve Enhancement Program (CREP), was paid in cost-share to farmers and landowners for implementation of BMPs which reduce the levels of nonpoint source pollution and protect Loudoun's streams and land. In addition, these practices, which reduce levels of nitrogen, phosphorus, sediment and bacteria in the waterways of the Potomac watershed, help Virginia meet the goals of the Potomac Tributary Strategy, the Catocin TMDL Implementation Plan, and CREP.

Summary of Practices Cost-Shared 07/01/07-06/30/08		
VA AG BMP Cost-Share		
SL-1 Permanent Grass	100.6 acres planted	\$ 19,832.53
SL-6 Water Systems	21 systems installed; 4.2 miles of fencing	\$127,574.13
SL-8B Cover Crop	250.1 acres planted	\$ 9,524.00
SL-8H CovCrop Harvestable	889.9 acres planted	\$ 17,798.00
SL-11 Critical Area Stab.	3.0 acres planted	\$ 6,300.00
WP-2 Stream Protection	3,098 ft. fencing	\$ 9,525.00
WP-4 Animal Waste Composting Facility	1 facility	\$ 18,750.00
FR-1 Reforestation	6.0 acres planted	\$ 1,050.00
		\$210,353.66
CREP Cost-Share		
CR-FR-3 CREP Buffer	36.0 acres planted	\$ 9,538.00
CP-22 Rental	36.0 acres	\$ 2,700.00
CP-22B Bonus: Riparian Buffer of 100' and wider	36.0 acres planted	\$ 3,600.00
SL-6 Water System	1 system installed	\$ 4,640.75
		\$ 20,478.75
TMDL C-S PAYMENTS	(See Page 4)	\$ 42,492.00
TOTAL PAYMENTS		\$ 273,324.41

In FY08, 32 land users/owners who implemented certain BMPs also qualified for a Virginia tax credit. The tax credit rate is 25% of the total eligible cost, not to exceed \$17,500. Only the portion of the total cost of the BMP that the land user/owner contributed is used to determine the tax credit. Anyone interested in learning more about this option should contact District Agronomist Patricia McIlvaine at (703) 777-2075, ext. 104.

Other programs available to Loudoun farmers and landowners through the USDA-Natural Resources Conservation Service (NRCS) included USDA's Conservation Reserve Program, Conservation Reserve Enhancement Program, Farm and Ranchland Protection Program, Environmental Quality Incentive Program, Grassland Reserve Program, Wetlands Reserve Program, and Wildlife Habitat Incentive Program. The Leesburg NRCS Field Office is co-located with the Loudoun District; for information about these federal programs, contact NRCS District Conservationist Larry Wilkinson at (703) 777-2075, ext. 102.

Conservation Farm Plans

In FY08 USDA-NRCS and District staff assisted local farmers and others in the preparation and implementation of 291*conservation plans for approximately 8,227* acres of land. These plans are an excellent land management tool and help owners meet requirements for participation in various state and federal ag-related programs as well as in the agricultural or horticultural options of the County's Land Use Tax (LUT) Assessment Program and Ag and Forestal Districts.

In order to better coordinate with Loudoun County government about land in LUT, Ag/Forestal district renewals, and applications for barn permits, District staff created a special database in 2006-2007. Updated routinely, it is proving very useful. It currently has 5,232 entries, including the 184 plans completed and approved in FY08.

Older farm plans are being updated to include new GIS maps that provide soils, floodplain, mountainside, and topographic information.

*107 plans for 5,847 acres entered in USDA-NRCS Toolkit; 184 plans for 2,380 acres in District database.

Technical Assistance

Rural: Designing BMPs, working with the farmer or landowner during the implementation, following up to make sure a practice is "performing" as it should, or making field visits on request to talk about changes or modifications to a farmer/land owner operation are all a part of technical assistance. This interaction between the land user and District and NRCS technical staff typically results in the implementation of the best BMPs to protect the environment and water quality. During the past year, approximately 3,000 contacts were made. Other sources of technical assistance included the Virginia Department of Conservation and Recreation, Virginia Department of Forestry, the Virginia Cooperative Extension Service, and the County Office of Agricultural Development within the County Department of Economic Development.

Urban/Suburban: District Directors and staff worked with units of government and agencies (federal, state, and local), homeowners, homeowner associations, and groups and organizations involved in conservation and environmentally-oriented special projects. Highlights included the following programs and activities:

- District Liaison Peter Holden continued to serve on the County Department of Building and Development's Environmental Review Team which meets to review development plans and makes field visits if needed.

- District staff provided technical assistance to individual homeowners and HOAs, most common problems being erosion and drainage, improper lawn care, and, in the case of HOAs, maintenance of open space.

- District Agronomist Patricia McIlvaine continued her work with Wancopin Watershed Neighbors, the Town of Middleburg, The Hill School, Middleburg Elementary School and other groups and individuals to do stream monitoring, plant riparian buffers, provide educational opportunities and conduct the 7th annual Middleburg Arbor Day Celebration in the Wancopin Watershed.

- Directors and staff continued to partner with the Town of Leesburg to further the storm drain marking project with groups throughout Leesburg and especially Leesburg elementary schools. Classroom presentations of the Enviroscape Watershed Model were used to educate students about the effects of pollution on our local watershed.

- The District sponsored the Loudoun Arbor Day Poster Contest, set up exhibits, conducted a tree planting activity and provided free tree seedlings for about 500 participants at the 20th Annual Loudoun Arbor Day Celebration.



Loudoun County teachers participate in an outdoor environmental education activity at the teacher workshop held at Banshee Reeks in June.

- The District organized and provided 4 rain barrel workshops at a variety of locations throughout the County (Heritage Farm Museum, Sterling; Tuscarora Creek Park, Leesburg; Banshee Reeks Nature Preserve, Leesburg; and a homeowners group, Round Hill); 132 people participated, "building" approximately 240 rain barrels; each workshop included a presentation on rainfall data, watersheds, and the value of rain barrels (among the advantages: they can help to conserve water and reduce runoff) and instructions on how to convert a "regular" barrel to a rain barrel; the workshop registration fee generated additional funds for District environmental education projects; additional workshops are planned for the new year.



Purcellville resident Nancy Cocroft (left) listens as District Liaison Peter Holden explains the benefits of rain barrels at a rain barrel workshop held in June at the Purcellville Town office.

- Public Information/Education Specialist Suzanne Brown served as a member of the steering committee for the new Loudoun Environmental Stewardship Alliance (LESA) and attended monthly meetings; she also co-chaired with Odette Scovel, Science Supervisor, Loudoun County Public Schools, the LESA event and planning subcommittee; the first environmental education training workshop for teachers was held in June.

In addition to the above referenced programs and activities, Directors and staff continued to serve on a variety of Boards and Committees concerned with environmental issues including the County Water Resource Technical Advisory Committee, County Strategic Watershed Management Steering Committee, the County Ag and Forestal Districts Advisory Committee, the Goose Creek Scenic River Advisory Committee, the Potomac Council, and the Potomac Watershed Roundtable; Directors and staff were also actively involved in projects and activities of the Virginia Association of Conservation District Employees Association, the Virginia Association of Soil and Water Conservation Districts, and the Rural Economic Development Council and Regional Agriculture Working Group.



WHAT IS TMDL?

What does TMDL Mean to Loudoun County?

Total Maximum Daily Load (TMDL) is the specific pollutant that a water body can receive and still maintain water quality standards. Section 303(d) of the 1972 Clean Water Act enhanced the TMDL process for identifying and restoring the quality of impaired waters.

In Virginia, TMDL is a three-step process: the first step identifies impairment sources and calculates the daily load; the second step is the development of an implementation plan that addresses allocation of allowable pollutant loads so the water body will meet the water quality standard, and the third step is implementation of the plan.

According to Virginia's 1998 303(d) list of impaired waters*, Loudoun County's water quality was impacted by nine stream segments which exceeded acceptable levels of fecal coliform and one stream segment with benthic (aquatic life) impairment. Fecal contamination of water bodies is from point and nonpoint source contributions. Nonpoint sources of fecal contamination include human, livestock, and wildlife. DEQ listed 3 segments in the Catoctin Creek watershed exceeding fecal coliform water quality standards; one segment in the Goose Creek watershed for benthic life impairment and 5 segments for fecal coliform; and in Piney Run watershed, DEQ listed one segment for fecal coliform impairment. The TMDL development for these impaired segments in Loudoun County was completed in 2004.

In Virginia, the Departments of Environmental Quality (DEQ) and Conservation and Recreation (DCR) are the lead agencies working in partnership with EPA, local and state governments, private consultants and local stakeholders to develop all listed TMDLs.

● For more recent studies, please visit the Virginia Department of Environmental Quality (DEQ) website www.deq.virginia.gov.

Catoctin Creek TMDL Implementation Plan

The Catoctin Creek TMDL Agricultural Program is now in its fourth year of existence and continues to focus on decreasing the level of fecal coliform bacteria and sediment in Catoctin Creek. The creek and its tributaries are located in the northwest portion of Loudoun County roughly encompassing the area from Paenonian Springs, Hamilton, and Purcellville, north to Hillsboro and Lovettsville.

The TMDL program encourages farmers to install Best Management Practices such as stream fencing, alternative water sources, cover crops, and tree plantings. Cost-share funding of up to 75 percent is available for these measures as part of the TMDL program. Restricting livestock access to streams limits the amount of bacteria from animal waste entering the water and protects stream banks from damage. Watering livestock from a well or spring-fed trough also leads to improved health compared to those that drink from a pond or stream. Cover crops secure soil during the winter months on land that otherwise might be fallow. Certain cover crops can also fix nutrients in the soil making them available for use by the next year's planting.

SUMMARY OF PRACTICES COST-SHARED 07/01/07 -- 06/30/08

SL-6 Water System	4 systems, 940' of fence	\$12,690.00
WP-2 T Stream Protection	7,248' of fence	\$24,768.00
SL-8B Cover Crop	18 acres planted	\$ 630.00
SL-8H Cover Crop Harvestable	220.2 acres planted	\$ 4,404.00
TOTAL		\$42,492.00



Catoctin Creek residents installed an alternative watering system after excluding horses from the creek.

Over \$109,000 in cost-share funds have been distributed to farmers as part of the Catoctin TMDL Agricultural Project and funds are still available for interested landowners in the watershed. To find out more, watch for flyers at local agricultural businesses or call Chris Van Vlack, TMDL Agricultural Specialist, at 703/777-2075, ext.107 or by email: chris.vanvlack@va.nacdn.net.

During FY08, the outreach activities of the TMDL Ag Specialist involved hosting a Twilight Farm Dinner in Hamilton, a mailing to promote the Catoctin TMDL project to all watershed residents, a presentation on cover crops to local vegetable producers, and a reconvening of the Catoctin TMDL Steering Committee.

Outreach

Conservation Awards

On November 15, 2007 the Loudoun District hosted a special awards dinner for the 2007 award winners. Oliver Iselin (Forestry), Carl Lindgren (Conservation Cooperator of the Year), Wagenburg Farm (Bay Friendly/Clean Water Farm Award), and Mary Young-Lutz (Teacher of the Year) were recognized for their efforts in natural resources conservation.



District Chairman Jim Christian (left) presents the Conservation Teacher of the Year Award to Mary Young-Lutz (center), Environmental Exploration and Biology Teacher, Dominion High School joined by her principal, Dr. John Brewer.



Arlene Janney and her son John (center holding the 2007 Grand Winner for the Potomac River Basin sign) received recognition from Jack Frye, DCR Division of Soil & Water, Division Director (left) and District Chairman Jim Christian (right) at the 2008 Area II Spring Meeting for the riparian forest buffer conservation projects installed on their farm that protect the water quality of over 2.5 miles of streams that drain to the Chesapeake Bay.

Statewide Educational Outreach

Public Information/Education Specialist Suzanne Brown served on the Virginia Association of Soil and Water Conservation Districts Education Committee and chaired the Environmental Education Exchange Subcommittee. The final workshop (in a series of 6) was held in October 2007 at the Maymont Nature Center in Richmond. The theme for the workshops was "Bringing the Outdoors to a Classroom Near You". The workshops were interactive and provided educators many new activities to take with them for use in the classroom. The presenters included staff from the VASWCD, local SWCDs, Virginia Department of Forestry, Virginia Department of Environmental Quality, and the Local Litter Councils.



The Environmental Education Exchange sponsored by the Virginia Association of Soil and Water Conservation District's Education Committee was well attended by teachers from across the state of Virginia.

PI/ES Suzanne Brown served as a member of the Virginia Association of Conservation District Employees Committee which planned training opportunities for District employees at the 2007 NACD SE Regional Meeting in Williamsburg. She provided an environmental education presentation related to Jamestown and assisted in the recycling session. In December 2007, she presented a concurrent session on "classroom management" at the VASWCD Annual Meeting.

District Liaison Peter Holden assisted the VASWCD Educational Foundation in procuring auction items for the fund-raising activities held at the Annual Meeting in Williamsburg.

The District contributed to the education fund of Farm Bureau's "Ag In The Classroom". Peter Holden serves on the AITC Technical Advisory Board.

The District contributed to the scholarship fund of the Virginia Department of Forestry's 2008 Holiday Lake Forestry Camp.



Directors and staff of the Loudoun Soil and Water Conservation District recognize that education is one of the keys to success in natural resources conservation and protection and enhancement of the environment. For this reason, every effort is made to provide informative and useful programs for people of all ages so that they will have the knowledge and skills needed to make meaningful contributions. FY08 programs and activities included school programs, exhibits, field trips, support and/or sponsorship of special events, mini-grants to educators, and the District newsletter.

In FY08 the District provided 30 school programs for grades pre-K through 5th grade, reaching approximately 900 students.

On June 20th, LESA hosted its first Environmental Educator Training Workshop at Banshee Reeks Nature Preserve. The workshop provided hands-on learning activities and resource materials to participants. Sessions were presented by LESA members: Loudoun Soil and Water Conservation District, Claude Moore Park, Loudoun Water, Adventure Links, Audubon Naturalist Society, and VDOF - Project Learning Tree. Participants received a LESA bag with environmental resource materials they could take back and use to implement activities in their classroom. The bags and the materials were provided by funds received from a National Oceanic and Atmospheric Administration (NOAA) Bay Watershed Education Training (B-WET) grant, Improving Student Achievement and C2K Meaningful Watershed Educational Experience (MWEE) Implementation in Virginia within Loudoun County Public Schools.

The District participated in the 4-H Agricultural Field Days for 4th and 5th graders at Temple Hall Farm; the event was organized by the Loudoun Cooperative Extension office. Approximately 500 elementary school children attended.

The District organized and conducted the FFA Forestry Competition at the Dennis Farm for Loudoun County High School, C. S. Monroe Technology Center, and Loudoun Valley High School students.

The District participated in activities in the Lucketts area priority watersheds including the Lucketts Elementary River Fair, Evans Pond common area riparian buffer tree planting, and a karst educational workshop. We also distributed 1,600 free seedlings at the Rust Sanctuary Eco Fair.

The District participated in the Family Stream Day event, organized by Loudoun Watershed Watch, at Seneca Ridge Middle School.

District staff assisted Trout Unlimited with a stream stabilization and riparian buffer planting at Big Springs Creek, noted by Virginia Department of Game and Inland Fisheries for being the only stream in Northern Virginia supporting a reproducing trout population. Staff also assisted at the annual Trout Unlimited Fishing Show where the watershed education exhibit provided hands-on educational opportunities and information promoting the benefits of riparian buffers and best management practices.

The District sponsored three awards for environmental projects at the Loudoun County Regional Science and Engineering Fair (see back page for listing of award winners) and staff members participated in the judging.

The District provided 5,393 educational publications to local schools to celebrate Soil and Water Stewardship Week; the theme for this year was "Water Is Life."

The District contributed 3,650 seedlings to schools, riparian projects, and for various Loudoun County Arbor Day programs.

The District sponsored the 20th Annual Loudoun Arbor Day Poster Contest for kindergarten through 12th grade; the Arbor Day Committee selected the top 50 winners from over 454 entries. The Arbor Day Celebration was held at Banshee Reeks Nature Preserve and attracted approximately 500 people.

The District awarded five mini-grants (each \$500) to teachers for environmental projects at Middleburg, Lucketts, and Potowmack Elementary Schools, and The Hill School.

Staff participated in the Area II Envirothon competition sponsored by the Virginia Association of Soil and Water Conservation Districts.

The District provided scholarships to two Loudoun County students to attend VASWCD's Youth Conservation Camp.

The District published an Annual Report and one issue of the District newsletter, each of which was distributed to more than 3,500 cooperators and other interested individuals.

The 2008 Seedling Program generated approximately \$7,000 for District educational programs and activities.

LOUDOUN SOIL AND WATER CONSERVATION DISTRICT

DIRECTORS

James B. Christian, Chairman
Christopher S. Simmons, Vice-Chairman
C. Corey Childs, Director
Peter C. Rush, Director
James K. Wylie, Director

ASSOCIATE DIRECTORS

Marian A. Czarnecki	Former Director
Gary W. Hornbaker	Former Director
Kenneth H. Lowery	Former Director
Dr. Joseph M. Rogers	Former Director

DISTRICT STAFF

Suzanne M. Brown	Public Information/Education Specialist
Anne B. Burgess	Administrative Assistant
Jay B. Frankenfield	Conservation Technician/Assistant
Peter R. Holden	District Liaison
Patricia J. McIlvaine	Agronomist
Chris Van Vlack	TMDL Ag Specialist

COOPERATING AGENCIES / ENTITIES

County of Loudoun, Board of Supervisors
County of Loudoun Government
Loudoun Cooperative Extension Service
Metropolitan Washington Council of Governments
Northern Virginia Planning District Commission
Towns of Leesburg, Purcellville, Hillsboro, Hamilton, and Round Hill
USDA-Farm Service Agency
USDA-Natural Resources Conservation Service
Virginia Department of Conservation and Recreation
Virginia Department of Forestry
Virginia Department of Transportation

All programs and services are offered on a nondiscriminatory basis without regard to race, color, religion, national origin, gender, age, disability, political beliefs, sexual orientation, marital or family status.

SOURCE OF FUNDS

County of Loudoun
Virginia Agricultural Best Management Practices Program
Virginia Department of Conservation and Recreation
Water Quality Improvement Fund
Chesapeake Bay Restoration Fund
District Tree Seedling Program
District Rain Barrel Project

The Commonwealth of Virginia supports the Loudoun Soil and Water Conservation District through financial and administrative assistance provided by the Department of Conservation and Recreation.

The Loudoun County Board of Supervisors supports the Loudoun Soil and Water Conservation District through an annual grant and provides administrative assistance through the Department of Management and Financial Services, Division of Payroll and Benefits, to administer payroll and benefit matters.

LSWCD AWARDS PROGRAM 2008

COUNTY SCIENCE AND ENGINEERING FAIR

James M. Rowley Award: best project related to water quality:

Kathryn Fowler, Briar Woods High School

"The Relationship between Soil Type and Radon Levels"

Leslie W. King Award: best project related to natural resources conservation:

Laura Hovatter, Freedom High School

"The Relationship between the Source of Nitrogen and Orchard Grass Yield"

**Jack Brown Award: best project related to conservation/environmental concerns
judged by staff to be "best of fair:"**

Adam Murray, Loudoun County High School

"Manure from Grain Fed versus Grass Fed Cattle as a Fertilizer"

SCHOLARSHIP

Youth Conservation Camp

Laura Hovatter, Freedom High School

Lynne Lynch, Harmony Intermediate School

Loudoun Soil and Water Conservation District

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