



10/4/06

# Loudoun Soil and Water Conservation District ANNUAL REPORT 2006

## 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 2006 Annual Report. The following pages provide an overview of our programs as well as a summary of our efforts during the past year. We hope you will find the information useful.

2006 marks the 35<sup>th</sup> anniversary of the Loudoun Soil and Water Conservation District as a single County District. Prior to 1971, Loudoun County, along with Fairfax and Prince William Counties, was a part of the Northern Virginia Soil and Water Conservation District which was established in 1945. Although the Loudoun County of today is very different from the mostly rural area of that earlier time, a constant factor has been the District's dedication to the protection and enhancement of the environment. To help us in our mission, we have had the invaluable support of our conservation partners: the Virginia Department of Conservation and Recreation, the USDA-Natural Resources Conservation Service, the USDA-Farm Service Agency, the Virginia Cooperative Extension Service, the Virginia Department of Forestry, the County of Loudoun, and our citizens. Thank you.

We hope that our Report will encourage your interest and participation in our endeavors. By working together, all of us and the environment will benefit. We look forward to hearing from you.

Sincerely,

  
Chairman

**35th  
Anniversary**

## 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 environmental effects of the ongoing residential, commercial, and industrial development in Loudoun County, along with the associated growth in population and motor vehicle traffic, are significant—not only in eastern Loudoun, but increasingly so in traditionally rural western Loudoun. The need for environmental awareness on the part of all who live and work in the County, along with the implementation of practical and effective best management practices, is critical to the protection and enhancement of our natural resources and quality of life.

In Loudoun County there are a number of federal, state, and local agencies and entities which address environmental concerns/issues through a variety of programs and activities for the agricultural sector, rural and suburban communities, and business and industry. The rural and urban conservation programs of the Loudoun Soil and Water Conservation District are specifically designed to help protect and enhance natural resources and to improve water quality. FY06 efforts included the following:

### Ag BMP Programs

The Virginia Agricultural BMP (Best Management Practices) Cost-Share and Tax Credit Program is the largest program of its type in Loudoun County and is administered by the District. In FY06, \$253,763.33, including \$1,650 related to the Conservation Reserve Enhancement Program (CREP) and \$38,162.93 related to the 319/TMDL Program, was paid in cost-share to farmers and landowners for implementation of BMPs (see table) 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 and the Catoclin TMDL Implementation Plan.

Summary of Practices Cost-Shared 07/01/05-06/30/06		
SL-1 Permanent Grass	164 acres planted	\$ 22,357.48
SL-6 Water Systems	systems installed	\$ 161,996.62
SL-8B Cover Crop	242 acres planted	\$ 6,295.00
WP-2 Stream Protection	3.6 miles fence	\$ 23,301.30
<b>AG BMP C-S PAYMENTS</b>		<b>\$ 213,950.40</b>
CRFR-3 Wooded Buffer	6 acres	\$ 1200.00
CP-22	6 acres	\$ 450.00
<b>CREP C-S PAYMENTS</b>		<b>\$ 1,650.00</b>
<b>TMDL C-S PAYMENTS</b> (See Page #4)		<b>\$ 38,162.93</b>
<b>TOTAL PAYMENTS</b>		<b>\$ 253,763.33</b>

In FY06 23 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 703/771-8395, extension 104.

Other programs available to Loudoun farmers and landowners through 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 Soil and Water Conservation District; for information about these federal programs, contact NRCS District Conservationist Larry Wilkinson at (703) 777-2075, extension 102.

### Conservation Farm Plans

In FY06 USDA-NRCS and District staff assisted local farmers and others in the preparation and implementation of 77 conservation plans for approximately 2,640 acres of land. These plans are an excellent land management tool and help owners to meet requirements for participation in certain state and federal ag-related programs as well as in the agricultural or horticultural options of the County's Land Use Tax Assessment Program.

A new database is being created for District cooperators. The database will allow staff to better coordinate with Loudoun County government about land in Land Use Tax, applying for Barn permits, and those up for Ag District renewal. Older farm plans are now being updated to include the new GIS maps that provide soils, floodplain, mountainside, and topographic maps.

### 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, 6500 contacts were made. Other sources of technical assistance included the Virginia Department of Conservation and Recreation, Virginia Department of Forestry, the Virginia Cooperative Extension, and the County Office of Agricultural Development within the County Department of Economic Development.



**Urban/Suburban:** During the past year District Directors and staff worked with units of government and agencies (federal, state, and local), homeowners, homeowners 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 weekly 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 (2006: Seneca Ridge Homeowners Association; Greenway Farms Homeowners Association) 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 fourth Annual Middleburg Arbor Day Celebration in the Wancopin Watershed.
- Directors and staff continued in partnership with the Town of Leesburg and Loudoun Country Day School to attach markers to 100 storm drain inlets in Leesburg; participants distributed educational packets on water quality and nonpoint source pollution to approximately 600 homeowners.
- 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 18<sup>th</sup> Annual Loudoun Arbor Day Celebration.

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, the Goose Creek Scenic River Advisory Committee, the Potomac Council, the Potomac Roundtable, Virginia Association of Conservation District Employees Association Committee, and the Virginia Association of Soil and Water Conservation Districts Education Committee.

## News Notes

### **CLEREMONT FARM RECEIVES AWARD Potomac River Basin Clean Water/Bay Friendly Farm**



*L to R: Tony Horkan, Ann Marie Horkan and Carl Lindgren*

The Clean Water/Bay Friendly Farm Award for the Potomac River Basin was presented to Cleremont Farm at the 4/27/06 VASWCD Area II Spring Meeting in Culpeper, Virginia. Cleremont Farm is a commercial Angus cattle farm located in southwest Loudoun County, on Trappe Road. The 1,650 acre farm stretches from the slopes of the Blue Ridge to the gently rolling pastures of the Piedmont. Cleremont is owned and operated by the Horkan-Lindgren family. Mrs. Ann Marie Lindgren Horkan and her sons, Carl Lindgren and Tony Horkan, manage the farm in a manner that honors the stewardship ethics of the late George Horkan, Jr., Attorney.

The farm is comprised of 640 acres of pastureland and 1,010 acres of hardwood forest. Unique in Loudoun County is the forested acreage. Cleremont manages the largest flatland timber stand in the county, approximately 400 acres, in addition to 600 acres of mountain forestland. Both forests have miles of trails used for hiking and horseback riding. 35 acres of wildlife corridors provide excellent habitat for a diversity of species including eight Bald Eagles that often visit one of the 4 ponds on the farm. Miles of fencing protect most of the forest, stream, and ponds and allow for a rotational grazing system of the pastureland for 200 brood cows to efficiently utilize the forages and produce high quality Angus beef. Through sound land stewardship ethics, outstanding farm management skills and hard work the Horkan-Lindgren family operates a top of the line commercial beef operation with a very high caliber of environmental stewardship.



## Special Water Quality Initiatives

### Catoctin Creek TMDL Implementation Plan

The Catoctin Creek TMDL Agricultural Program is entering its second year with its continuing focus on reducing the level of fecal coliform bacteria in Catoctin Creek. The creek and its tributaries are located in the northwest portion of Loudoun County including northern Hamilton and Purcellville, southern Lovettsville, along with Waterford, Hillsboro, Taylorstown, and Paeonian Springs.

A large part of the TMDL program involves gaining farmer and landowner participation in the Virginia Best Management Practices Cost-Share Program. In the Catoctin Watershed this includes BMPs such as cover crops, livestock stream fencing, tree plantings, and water systems. The advantages for the environment include less animal waste and sediment entering the water. The benefits for farmers and livestock include keeping animals from wet areas which can lead to hoof diseases and providing clean healthy sources of drinking water.

Currently, the cost-share opportunities mean that up to 75 percent of the cost of a water trough and stream fencing system could be covered under the Catoctin Creek TMDL Program.

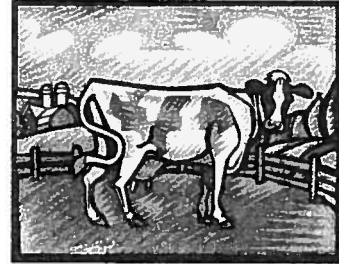


*Jerry Sollinger talks with Chris Van Vlack about Catoctin Creek TMDL Project cost-share funding.*

Over \$47,000 has already been dispersed to landowners in the watershed for cost-share programs, with a number of other practices under construction. Farms with all sorts of livestock from horses and cattle, to sheep and llamas have been included in the program so far.

As part of the effort to spread the word about the program, presentations have been given to two local horse organizations, the Loudoun Cattlemen's Association, and the Loudoun Valley Sheep Producers. Along with presentations, flyers are regularly posted at local businesses such as Southern States and Loudoun

Milling, and displays have been set up at fairs and other community gatherings. If you are interested in getting more information about the Catoctin Creek TMDL Program, contact Chris Van Vlack, TMDL Agricultural Specialist, at 703/777-2075, extension 107 or by email: [chris.vanvlack@va.nacdn.net](mailto:chris.vanvlack@va.nacdn.net).



### SUMMARY OF PRACTICES COST-SHARED 07/01/05 – 06/30/06

SL-6 Water System	3 systems	\$14,464.43
WP-2 T Stream Protection	6539 feet of fence	\$23,698.50
<b>TOTAL</b>		<b>\$38,162.93</b>

### 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.

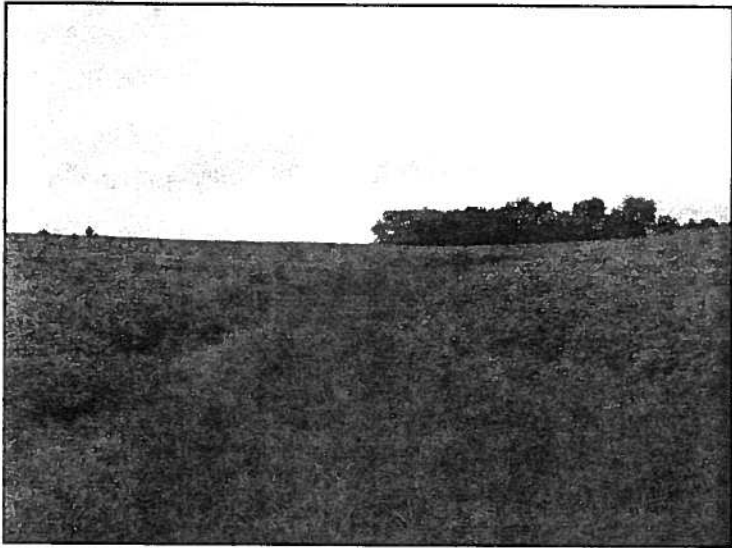
In Virginia, TMDL is a three-step process: the first step identifies impairment sources and calculates the daily load; the second step is the development of an implementation plan that addresses allocation of allowable pollutant loads so the water body will meet the water quality standard, and the third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

Loudoun County's water quality is impacted by nine stream segments listed on Virginia's 1998 303(d) list as exceeding 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 lists 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 lists one segment for fecal coliform impairment. The TMDL development for 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.

## **Water Quality Monitoring**

The District's TMDL (Total Maximum Daily Load) stream monitoring program, begun in 1999, collects data on water quality parameters of stream segments impaired for fecal coliform bacteria. Stream samples are collected for fecal coliform bacteria, nitrate, phosphate, dissolved oxygen, water temperature, and pH. Aquatic insect surveys also help to provide data for use in determining water quality conditions and trends. The stream monitoring information is available to the public on the District's website at: (<http://www.loudoun.vaswcd.org/>).

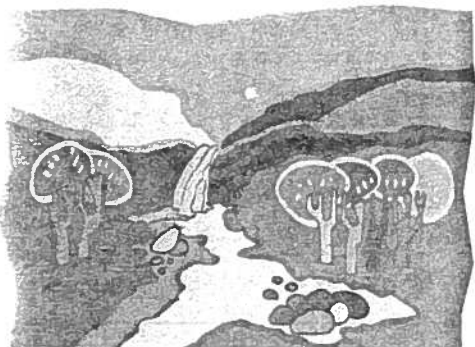


*A well maintained grass waterway helps prevent erosion in cropland.*

## **Outreach**

TMDL Ag Specialist led a tree planting with students from Loudoun Valley High School at a farm in Hillsboro that had also participated in BMP cost-share for stream fencing.

TMDL Ag Specialist participated in a tree planting at a new county park in Hamilton, creating a forested riparian buffer. The planting was done in cooperation with Loudoun Watershed Watch and the Loudoun Wildlife Conservancy with a great deal of help from an enthusiastic group of girl scouts.



## **Statewide Educational Outreach**

Public Information and 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 goal of the committee is to sponsor 3 environmental education workshops across the state. In partnership with the VASWCD the District organized and sponsored the first Northern Virginia Environmental Educator Workshop in May at Banshee Reeks Nature Preserve. There were 26 people in attendance, including teachers, staff of the Virginia Department of Forestry, Loudoun Cooperative Extension, and the District. The theme for the workshop was "Bringing the Outdoors to a Classroom Near You". The workshop was interactive and provided educators many new activities to take with them for use in the classroom.



*Peter Holden, District Liaison and Stacey Bradshaw, Chowan Basin SWCD participate in an environmental education activity at the Education Exchange at Banshee Reeks Nature Preserve in May.*

District Liaison Peter Holden served as a member of the Virginia Association of Conservation District Employees Committee planning training opportunities for District employees at Graves Mountain Lodge in August. He also assisted the VASWCD Environmental Education Foundation in procuring auction items for the fund-raising activities held at the Annual Meeting held in Williamsburg.

The District contributed to the education fund of Farm Bureau's "Ag In The Classroom".

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



Directors and staff of the Loudoun Soil and Water Conservation District recognize that one of the keys to success in natural resources conservation and protection and enhancement of the environment is education. 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. FY06 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 FY06 the District provided 18 school programs for grades pre-K through 5<sup>th</sup> grade.

Soil tunnel and watershed education exhibits were displayed at the Loudoun County Fair, Loudoun Arbor Day, Forrest Grove Elementary School and the Middleburg Community Center.

The District partnered with the Town of Leesburg and Loudoun Country Day School to mark 100 storm drains in the Greenway Farms subdivision; this project also included an educational component: 600 "You and Your Land" booklets and door hangers with information about nonpoint source pollution were distributed in the subdivision.

Through grant funding of \$2,775 from the Chesapeake Bay Restoration Fund the District provided educational programs, exhibits and materials promoting the importance of trees and the benefits of riparian buffers at the Loudoun County and Town of Middleburg Arbor Day events and at the Loudoun County Fair. In addition, over 950 trees and shrubs were planted at five sites creating over 5 ½ acres of riparian buffer. Grant funds offset the cost for tools and materials to conduct the five riparian tree planting projects: 2 acres planted around a pond and along a stream at Banshee Reeks Nature Preserve by Arbor Day participants, 1 acre along a stream at Spencer's Farm by Scout Troop #969, 1 acre along a stream at Mount Beulah Farm by Monroe Technology Center's Horticulture students and Smarts Mill Middle School Ecology Club students, ½ acre along a stream on Creamer Lane Farm by Loudoun Valley High School students and 1 acre around a pond and wetland on the Wancopin Community Trail by the Hill School 6<sup>th</sup> grade class. Agency staff from NRCS, VDGIF, and LSWCD helped with the planning, logistics, and site preparation for the plantings.

Assisted Trout Unlimited with 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. Assistance was also provided at the annual Trout Unlimited Fishing Show where the watershed education exhibit provided hands-on educational opportunity 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 4,246 educational publications to 13 schools to celebrate Soil and Water Stewardship Week; the theme for this year was "Water Wise".

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

The District sponsored the 18<sup>th</sup> Annual Loudoun Arbor Day Poster Contest for kindergarten through 12<sup>th</sup> grade; the Arbor Day Committee selected the top 50 winners from over 300 entries.

The District awarded 2 mini-grants, approximately \$800 to teachers for environmental projects at Potowmack Elementary and Lovettsville Elementary School.

The District assisted Virginia Cooperative Extension with the Loudoun Forestry and Wildlife Bus Tour. The District Agronomist and District Conservationist provided help with planning and logistics and spoke on pond management, warm season grasses and native plant species.

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

The District provided a scholarship to a Loudoun Valley High School student 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 2,500 cooperators and other interested individuals.

The 2006 Seedling Program generated approximately \$5,800 for District educational programs and activities.



# LOUDOUN SOIL & WATER CONSERVATION DISTRICT

## DIRECTORS

James B. Christian	Chairman
Michael A. Megeath	Vice-Chairman
Steve W. Cawthron	Director
C. Corey Childs	Director
James K. Wylie	Director

## ASSOCIATE DIRECTORS

Alex Blackburn	Soil Scientist
Marian Czarnecki	Former Director
George Franklin	Farmer
Vicki Jo Holstead	Secondary School Dean
Gary Hornbaker	Former Director
Kenneth Lowery	Former Director
Dr. Joseph Rogers	Former Director

## DISTRICT STAFF

Suzanne M. Brown	Public Information/Education Specialist
Anne B. Burgess	Administrative 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  
Chesapeake Bay Mini-Education Grants  
District Tree Seedling Sale

*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 Financial Services, Division of Payroll and Benefits, to administer payroll and benefit matters.*

# LSWCD AWARDS PROGRAM 2006

## COUNTY SCIENCE AND ENGINEERING FAIR

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

Nathan Latka, Loudoun County High School

*"The Effects Wetlands Have on a Waterway's Flooding Frequency"*

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

Kaitlin Spurlock, Loudoun Valley High School

*"Selenium Levels in Horses from Loudoun County"*

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

Brittany Bading, Loudoun County High School

*"The Effectiveness of Aerobic vs. Anaerobic Decomposition in Septic Tanks"*

## SCHOLARSHIP

**Youth Conservation Camp:** Felicia Brower, Loudoun Valley High School

### **Loudoun Soil and Water Conservation District**

30 Catocin Circle, SE, Suite H  
Leesburg, VA 20175

Phone: 703/771-8395 Fax: 703/443-0187

[www.loudoun.vaswcd.org](http://www.loudoun.vaswcd.org)

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