

**Shenandoah Resource Conservation and
Development (RC&D) Area
Completed Projects (2007 – 2011)**

The following is a synopsis of the completed projects. Shenandoah RC&D was designated in July 2003; full-time staff began and office opened in May 2004.

<i>Goal</i>	<i>Project</i>
GOAL 1: Promote managed growth and development, with an emphasis on protection of farm and forestland and open space.	<p>Community Financing for Local Land and Water Protection. This project involves working with partners and interested localities to come up with strategies and structures for long-term financing to achieve local natural resource protection goals. The project will offer continuing follow up assistance to interested cities and counties to ensure resource protection goals are met. The project will help localities build capacity for achieving desired results, using the following: traditional and non-traditional financing mechanisms; public and private sector initiatives; user fee structures; and, assistance to farmers for practices that enhance water quality. This project will create a model for other communities across the nation to use to finance protection goals. (<i>Area wide</i>)</p> <hr/> <p>Alternative Approach to Sustainable Agriculture. The Shenandoah RC&D Council provided funding and coordinate a visit to our RC&D Area by Todd Erling; we arranged appointments for Todd to meet (hosted by Shenandoah RC&D) with county officials, agricultural interests and others to explain the Hudson Valley approach, answer questions, and open discussions about using this cooperative, multi-county, approach to agricultural development (as opposed to each county ‘doing its own thing’).</p> <hr/> <p>North Fork CREP Workshop. Conducted an outreach event for the agricultural community in the North Fork of the Shenandoah Watershed that highlighted the NRCS-CREP and other conservation farming practices.</p> <hr/> <p>Crop Tree Release with Shiitake Mushrooms as a Management Opportunity for Forest Landowners. This is a demonstration project for forest landowners that don’t otherwise look to their forest land as a managed resource showing the potential for increasing income on forest lands using crop tree release coupled with shiitake mushroom production. The goal of this project is to perpetuate forestland conservation by showing landowners the potential of sustainable forest management with alternative forest land crops and specific management tools. The objective of this project is to teach landowners about crop tree release and growing shiitake mushrooms. Specific activities to be undertaken to meet the goals and objective are establish demonstration plots and coordinate accompanying field tours to those sites to show the management activities; produce publications outlining the economics of such an operation. (<i>Area wide</i>)</p> <hr/> <p>Invasive Species Workshop. Two workshops held in Harrisonburg and Woodstock to train volunteers and public recreation staff on invasive species management to help increase awareness.</p> <hr/> <p>Partnering Request: 2005 Stevens Amendment Act Fire Mitigation Work. This \$200,000 project has implemented fuel reduction activities on approximately 200 acres in the New River Highlands and Shenandoah RC&D regions. The fuel reduction activities are targeted to high risk communities and individual homes located within three miles of national forest service land. This project will help improve the fire safety of approximately 200 homes across these regions. (<i>Area-wide</i>)</p> <hr/> <p>Farm Transition Management III. This intensive five-week workshop on planning for passing on the family farm was organized by Virginia Cooperative Extension and funded largely by Shenandoah RC&D. Workshop topics included: goal and retirement planning; estate management, tax and insurance issues; power of attorney, advance medical directives and wills. Numerous area farm families participated. The goal at the end of these sessions was that a transition management plan should be in place for every farm family participating. (<i>Verona and Stanley</i>)</p> <hr/> <p>Mini-Grants to Promote Community Forestry. The goal of this project is to stimulate active management of community forestry by local governments. The project objectives are to generate specific forestry projects by local communities to manage invasive species through workshops, control and/or demonstration projects; to conduct street and public spaces tree inventories; to promote use of native plants and the ‘right tree, right place’; or to conduct training in proper pruning</p>

Goal**Project**

GOAL 1: Promote managed growth and development, with an emphasis on protection of farm and forestland and open space. (cont'd)

techniques or using chainsaws and related tools safely. Specific activities to be undertaken to meet the goals and objectives are a challenge grant request for proposals would be issued, soliciting project proposals consistent with the above objectives. A maximum of \$500 per community would be awarded based on a 50/50 matching basis (match can be in-kind or cash).

Rain Garden and Riparian Forest Workshops. The purpose of this project is to present two workshops in cooperation with the VA Department of Forestry and the Shenandoah County Parks and Recreation Department. These workshops are part of a series of events that Friends of the North Fork is undertaking to create awareness and encourage behavior change in citizens throughout the watershed. The goal of this project is to teach people about how to protect our waterways from pollution. Participants will learn about how rain gardens and riparian buffers can improve water quality in streams and the river. Participants will be able to take newly learned skills away from the programs and use them in their own backyards. One of the activities undertaken will be a demonstration rain garden at the US Forest Service office in Edinburg, VA. Participants will plant a small forest buffer along the North Fork in the Edinburg area.

Shenandoah Valley Agriculture Research and Extension Center (SVAREC) Demonstration Forest. The goals for this project are to establish baseline inventory data at SVAREC from which management prescriptions can be made for the forestland there, and management options demonstrated to landowners through field days and workshops. The objective is to create various forest management demonstrations for private forest landowners, which will encourage more land to remain under forest cover with all its associated benefits, including environmental quality and community viability. The Specific activities to be undertaken to meet goals/objectives are to hire an intern to perform detailed forest inventory and purchase supplies to be used in the inventory, for long term monitoring, and landowner workshops. (*Area-wide*)

Promoting Local Wood Products. Capitalizing on the Buy Fresh, Buy Local movement across the Shenandoah Valley, this project seeks to promote local woods products in the Shenandoah Valley by creating an online directory. The products directory can be accessed from the Shenandoah RC&D website.

Shenandoah Valley Food, Farm and Community. This project will initiate a Buy Fresh, Buy Local chapter in the Shenandoah Valley; will maintain a database of local food contacts to include farmers, chefs, institutions, restaurants, grocers, farmers' markets, distributors, and chefs and a website presence about local foods in the Shenandoah Valley which will build on and augment the RC&D's Local Flavor Guide; will initiate a Shenandoah Valley Food, Farm and Community work group to continue to promote a stronger, more diverse, and self-reliant community food systems; and organize and sponsor a Shenandoah Valley Local Food and Community Forum on March 27 in cooperation with the Blue Ridge Community College and other interested community partners that will focus on the importance of local foods, nutritional health, community planning, and the specifics of institutional buying and local sourcing. (*Area-wide*)

Cultivating Sustainability and Strategic Directions for Scaling up the Shenandoah Valley's Regional Food System. The project and effort to cultivate sustainability in the Shenandoah Valley is ongoing—a long-term endeavor, since many small and mid-sized farmers continue to struggle to survive financially. The strategic planning session with Larry Yee and Ron Doetch and concurrent conference will help achieve the following goals: 1) help more Virginia farmers and food system practitioners gain knowledge in the work of the 3 Agriculture of the Middle Task Force and their effort to help small and mid-sized farms remain economically viable and develop equitable and sustainable value chains; 2) develop strategic directions for scaling up the Shenandoah Valley's local and regional food systems; 3) create and strengthen value chains and supply with area institutions for more opportunities for local producers; 4) address local procurement policies and adopt favorable procurement policy language that can be used in contractual agreements; 5) expand opportunities for farmers to work with the health community; 6) develop long-term strategies for making local foods a more common part of institutional cafeterias and food businesses.

Easements and Agriculture. This project explores specific, technical ways to make conservation easements work for counties with strong agricultural zoning and smaller, more intensive farms. The objective is to convene local and national experts to sort out issues and make recommendations

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	to improve agricultural easements in the Valley while maintaining high quality conservation standards. Some specific activities undertaken by this project include convening a working group of experts for a day-long session on agricultural easements, exploring issues related to water quality impacts, size of buildings, farmstead envelopes, IRS requirements, local program solutions, trends, and applications for Valley counties. Public sessions were hosted as well as smaller gatherings with local land conservation program managers featuring representatives from Lancaster Farmland Trust and/or Lancaster Farmland Preserve Board. <i>(Area-wide)</i>
GOAL 2: Promote a sustainable agricultural sector.	Shenandoah County Agriculture Task Force. Shenandoah County appointed an Agriculture Task Force to develop a strategic plan to be submitted to the County Board of Supervisors with specific recommendations for strengthening the ability to sustain agriculture in the County. A small grant was given to make funds available to the task force to educate itself on key areas related to agricultural sustainability. The final report and recommendations were completed in December 2006. <i>(Shenandoah County)</i>
GOAL 2: Promote a sustainable agricultural sector. (cont'd)	Farm Safety Day. This was a workshop held to promote safety on farms including learning about tractor safety, manure and silo gases, and respiratory health.
	On-Farm and Rural Production of Biodiesel. This project will provide some basic information and education about biodiesel use and production on-farm and for rural landowners. This project's goal is to increase biodiesel use in the Valley to help reduce air emissions and reduce dependence on foreign oil. A goal is to have a one-day workshop for farmers and interested rural landowners from the Shenandoah RC&D area to cover the basics of small-scale biodiesel use and production, important safe usage and production information, and case study experiences with making and using biodiesel. <i>(Area wide)</i>
	Waste Solutions Forum – Intern. This project supports funding to hire an intern to assist with administrative Waste Solutions Forum work and outreach. <i>(Area wide)</i>
	Biodiesel for Municipal and County Fleets. This project will provide some basic information and education about biodiesel use for local transportation fleets. This project's goal is to increase biodiesel use in the Valley to help reduce air emissions and reduce dependence on foreign oil. A goal is to have one workshop that targets local transportation officials, school administrators, and fleet operators to discuss biodiesel use in fleets. <i>(Area wide)</i>
	Forum for Rural Innovation. The purpose of the <i>Forum for Rural Innovation</i> is to showcase replicable innovative ideas, projects or programs that enhance farm or rural business profitability, conserve farm land or natural resources, or develop new approaches to rural prosperity that are viable in an expensive farmland-upscale consumer market environment. The Forum for Rural Innovation is a cooperative educational effort by the Offices of Agricultural Economic Development and Cooperative Extension in Clarke, Fauquier, Frederick and Loudoun Counties, Virginia; Berkeley and Jefferson Counties, West Virginia; Potomac Headwaters and Shenandoah RC&D; Virginia Cooperative Extension, and WVU Extension. An annual Forum has been offered in March for the past three years and tours highlighting innovative practices have also been offered. These funds represent a sponsorship for the Forum held this past year in March 2007.
	Farming Fridays. Changes in landownership in the Shenandoah Valley have resulted in significant growth in the number of people interested in small-scale agriculture. These landowners represent a growing constituency of enthusiasts and entrepreneurs that will dramatically affect how the resources of the Shenandoah Watershed are managed. The curriculum is designed to guide aspiring landowners on how best to evaluate and manage their land, capital, and labor resources to achieve their goals while protecting the resource base. Another goal is to ensure owners of small farms develop and maintain their land in an environmentally and economically sustainable manner while conducting the farming activities of their choice, whether these activities are a vocation or avocation. <i>(Area-wide)</i>
	2008 Women in Ag Conference. In partnership with Virginia Cooperative Extension, help sponsor

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	<p>the 2008 Women in Ag Conference on April 9, 2008 at Blue Ridge Community College for 175 Virginia women. Highlight local foods and provide women with the opportunity to see how they can reap economic benefits for their farming operation from regional food systems. (<i>Area-wide</i>)</p>
	<p>Waynesboro Farmers Market - I. A group of citizens is trying to restart the Waynesboro Farmers' Market. This project supports their efforts to hire a market manager to recruit vendors and distribute information about the Market to vendors and the public. (<i>Waynesboro</i>)</p>
	<p>Steele's Tavern Research Farm. This is a three-year project of a replicated plot design that will evaluate different fertilizer sources at different application rates on cool season grass hay and pasture. Poultry litter has been added as a source to plot design at rates that would mirror N-based and P-based at application rates in Nutrient Management plans. Yield and forage samples will be affected throughout the growing season. Results of this project will be disseminated to producers and stakeholders to promote positive changes in cropping systems that increase soil quality while enhancing economic sustainability. (<i>Augusta County – Steele's Tavern</i>)</p>
<p>GOAL 2: Promote a sustainable agricultural sector. (cont'd)</p>	<p>Friendly City Food Co-op. The Shenandoah RC&D Council will help defray costs associated with a Market Feasibility Study to support the Co-op's initiative to provide additional regional markets for locally grown food. This is contingent upon having all but proprietary information be made publicly available to other groups in the Valley that are working on local foods initiative to increase markets for local foods. Co-op leaders will also assist other efforts. (<i>Harrisonburg</i>)</p>
	<p>Biological Control: Invasive Species Land Reclamation and Management. This demonstration project at the Frontier Culture Museum in Staunton uses South African Boer Bok goats to manage many of the worst invasive species in the Shenandoah Valley. This project helped develop a business for managing invasives that can ultimately help on pasture, woodlands and even idle commercial property. Simultaneously, this project also encourages goat farming operations in the Valley utilizing invasive species as their primary forage base. (<i>Staunton/Augusta County</i>)</p>
<p>GOAL 3: Promote community development and diverse rural economies.</p>	<p>Poultry House Lighting Audit: This project will conduct research and develop associated outreach materials for poultry growers that provide information on the energy savings, economic payback characteristics, and environmental benefits of dimmable compact fluorescent lighting systems. These materials will provide growers with the information that they need to make decisions about investments in energy efficient lighting equipment, which in turn will save money in farm operating expenses and mitigate air pollution and greenhouse gases associated with electricity consumption. A farm in Augusta County has been identified and two poultry houses will provide side by side comparisons. (<i>Augusta County with Area-wide implications</i>)</p>
	<p>Farmer's Market Workshop. In collaboration with Virginia Cooperative Extension, the RC&D held a workshop entitled "Strengthening Valley Farmer's Markets" on December 4, 2007. The purpose was to help strengthen existing farmers markets in its region and help those who want to start up farmer's markets in the Area. Over 60 people attended including market managers, vendors, and board of director's members. (<i>Area-wide</i>)</p>
	<p>Crossing Creeks. Crossing Creeks is a supportive, therapeutic community where persons with persistent mental illness can live and work with others. The goal of this project is to expand the scope, capacity, and diversity of a small farm based on sustainable agriculture principles. For examples, project funds will be used to acquire small livestock, convert the current poultry operation to a free range model, and provide resources on perma-culture and organic farming. (<i>Rockingham County</i>)</p>
	<p>Growing Power! and The Urban Farm Project - I. Will assist low-income families grow their own food in their neighborhoods and improve their nutrition. <i>The Urban Farm Project</i> will employ low-income and homeless individuals in the production of organic produce at an urban sustainable living site in Harrisonburg, VA. This is for one growing season starting in January '08 until October '08. The Urban Farm Project is designed to be primarily self-funded after its first year through</p>

Goal	Project
	building community shares and market sales. (<i>Harrisonburg</i>)
	<p>Waste Solutions Forum Phase II. The purpose of the original project, completed in FY 05, was to engage farmers, policy makers, researchers, industry representatives and government officials in a facilitated, outcome based planning forum to come up with specific options and comprehensive solutions for utilizing excess animal waste in the Valley. Phase II objectives include finding funds to implement the top strategies identified in the Waste Solutions Final Report. Shenandoah RC&D is subcontracting from Virginia Tech on a \$1 million National Fish and Wildlife Foundation grant to house a Council employee at the RC&D office to be a “Market Maker.” In November 2006, the Council hired a full-time, organic by-products manager to aggressively market and facilitate proper use of excess animal manures and other nutrient-rich byproducts produced in the Shenandoah Valley. (<i>Area-wide</i>)</p>
	<p>Waynesboro Farmers Market - II. A group of citizens restarted the Waynesboro Farmers’ Market in 2008. This project supports their efforts to pay a market manager. The market manager will also recruit more vendors and do some public relations work. In order to supplement the grant the WFM Committee will solicit donations from local business in the Waynesboro area. (<i>Waynesboro</i>)</p>
<p>GOAL 3: Promote community development and diverse rural economies. (cont’d)</p>	<p>Harrisonburg Farmers Market. The Harrisonburg Farmers’ Market (HFM) is looking to increase support for area producers and provide more high-quality, locally produced food to the community. It is looking to expand operations by recruiting new vendors and becoming a more integral part of downtown Harrisonburg growth by seeking to build a permanent pavilion. The permanent pavilion, will shelter current and future farmers’ market vendors and be available for use for other community events. In order to support these efforts, the HFM has hired a new market manager to bring new life and growth to the market. These funds have allowed the HFM to increase the market manager’s seasonal salary by \$2,600 and dedicated \$2,400 for promotional materials to advertise the market’s expansion and promote the market’s growth and the new pavilion. (<i>Rockingham County</i>)</p>
	<p>New Community Project II. This was the second season for the Muddy Bike Urban Garden Project, an organic market garden which trained and employed five people in a homeless or transitional situation. A new form of payment was created this past season to better facilitate wise financial stewardship of workers who struggle with addictions and alcohol. 75% of payment went to a housing fund, while 25% went directly to the garden worker. This helped several garden workers gain control of pending debts and gain access to housing. The garden expanded this year to selling at three local restaurants as well as part-time sales at the Harrisonburg Farmers Market. The second component of this project was an expansion of community gardens in Harrisonburg at local trailer courts and churches. These helped low-income and transient populations have access to fresh vegetables, as well as allowing some produce to be donated to a local food bank. (<i>Harrisonburg</i>)</p>
	<p>JMU Community and Student-Run Farm and RMH. This project will provide a “hands-on” experience for anyone who wishes to learn about sustainable agriculture at JMU. It will also sell produce to JMU, RMH and community members to aid them in healthier eating and living. It will be a place of learning and community, where students, families and patients alike can come together to learn. (<i>Harrisonburg</i>)</p>
<p>GOAL 4: Promote the conservation of natural resources, with an emphasis on improvement and protection of water and air quality.</p>	<p>Rolling and Crimping as a Low Input Tool for Managing Cover Crops in the Shenandoah Valley. This project conducts a first phase of on-farm research to demonstrate the effectiveness of a valley cover crop roller crimper. The objectives of this project are to: 1) determine the optimum timing and frequency of rolling/crimping for effective control of small grain, legume and small grain plus legume cover crops; 2) quantify the effects of rolling/crimping small grain, legume and small grain plus legume cover crops on soil moisture, soil temperature and soil nutrient cycling; 3)</p>

Goal**Project**

determine the effects of rolling/crimping on cash crop growth and performance following cover crop management. Cover crop management reduces tillage, inputs and builds and enhances soil quality. (*Area wide*)

Demonstration and Evaluating Cover Crop Roller-Crimper.

- **No-Till Field Day in the Northern Shenandoah Valley.** Northern Shenandoah Farmers are unfamiliar with many innovative crop production technologies including the use of the roller-crimper, verifying yields for nutrient management planning, soil nitrate testing, and other innovative technologies. A goal for this project is to enhance farm profitability and increase the use of environmentally-sound farming practices by educating farmers about innovative technologies. The objectives of this project are to introduce Northern Shenandoah Valley farmers to: use of the roller/crimper for no-till corn production; verifying yields for nutrient management planning; the pros and cons of applying foliar fertilizer to soybeans; the benefits of soil nitrate testing; and other innovative farming technologies. (*Northern Shenandoah Valley*)

Field Crop Summer Intern II. A summer intern will assist with multiple extension education programs related to environmentally-sound and economical field crop production in the northern Shenandoah Valley for a second summer. S/he will increase soil nitrate testing, scout for orchardgrass pests, collect data on soybean pests, and refine corn weed control programs. This summer intern will enable the area to enhance farm profitability and facilitate environmentally-sound agronomic practices. (*Shenandoah County*)

GOAL 4: Promote the conservation of natural resources, with an emphasis on improvement and protection of water and air quality. (cont'd)

Treating Corn Fodder with Anhydrous Ammonia or Liquid Supplement for Winter Feeding of Livestock. A demonstration ammoniating corn fodder for the purposes of extending/increasing winter feed supplies for cattle. This process will be compared to the use of liquid supplement (molasses) to enhance corn fodder. The participating farmer or farmers would pay the normal production expenses associated with ammoniating fodder (baling corn stalks, transporting, plastic, anhydrous ammonia etc.). These funds would be used to offset some of the abnormal expenses associated with this demonstration. (*Shenandoah County*)

Carbon Trading for Farm Income and Environmental Sustainability. To educate farmers and other relevant parties about carbon trading as a potential income opportunity for Virginia farmers. A day-long educational meeting on carbon trading will be conducted on February 5, 2008 in Tom's Brook. Two focus group meetings with people interested in a specific aspect of carbon trading will be conducted. (*Area-wide*)

Easements and Agriculture. This project will explore specific, technical ways to make easements work for these and similar counties with strong agricultural zoning and smaller, more intensive farms. The goal of this project is to ensure owners of farmlands with significant conservation values are able to access conservation easements while protecting water and land conservation values even if they have smaller (less than 100 acre) parcels. The objective is to convene local and national experts to sort out issues and make recommendations to improve agricultural easements while maintaining high quality conservation standards for smaller and more intensively farmed land parcels. Some specific activities to be undertaken by this project is to convene a working group of experts for a day-long session on agricultural easements, exploring issues related to water quality impacts, size of buildings, farmstead envelopes, IRS requirements, local program solutions, trends, and applications for Valley counties. Host a public session as well as smaller gatherings with local land conservation program managers featuring representatives from Lancaster Farmland Trust and/or Lancaster Farmland

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Preserve Board.

Rapid Watershed Assessment North Fork. Rapid Watershed Assessments (RWAs) provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. These assessments help landowners and local leaders set priorities and determine the best actions to achieve their goals. This project asks for technical assistance in putting together a RWA for the North Fork of the Shenandoah River Watershed, specifically for coordinator and interested Council members to assist with distilling public comment related to watershed issues. (*Area-wide*)

Dairy Parlor Wastewater Innovative Demonstration Project. This project will improve use of a geo-textile fabric and polymer at a farm in Rockingham County, to reduce the N-P-K, BOD, suspended solids and fecal coliform from typical dairy parlor waste. This project will fund testing of untreated and treated effluent and the purchase of geo-tubes along with miscellaneous plumbing supplies. (*Rockingham County*)

Rapid Watershed Assessment Main Stem. Rapid Watershed Assessments (RWAs) provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. This project provided technical assistance in putting together a RWA for the Main Stem of the Shenandoah River Watershed, assisting with distilling public comment related to watershed issues. The RWA has just been completed. (*Area-wide*)

Energy Savings on-Farm: Outreach and Education. The goal of this project is broad-based education and outreach to provide farmers with specific detailed information that will allow them to save on on-farm energy costs. This project included a workshop at James Madison University on saving energy on farm as well as a pilot energy audit program that assisted producers with free energy audits. The objective is to assist area farmers in economic sustainability by saving energy costs on farm, which will also help protect farmland and working farms, and reduce energy use. (*Area-wide*)

GOAL 5: Strengthen Council Operations

Shenandoah RC&D Projects Tour. To put together and implement an RC&D projects tour that highlights the work of the Shenandoah RC&D that will educate federal legislators, their staff, potential RC&D supporters, and the Office of Management and Budget on the importance of the RC&D program nationwide with examples from Virginia. (National)