

# Lehigh Valley Greenways Case Study

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November 3, 2009

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## Introduction

Pennsylvania Department of Conservation and Natural Resources' (DCNR or the Department) Lehigh Valley Greenways (LVG) initiative represents a focused, proactive approach to regional landscape conservation that combines the coordination of the internal bureaus of DCNR with the engagement of a broad range of external partners. The Lehigh Valley is among the fastest growing parts of the state, with many communities feeling overwhelmed by "sprawl." In working in the Lehigh Valley, DCNR's main priority is to help communities deal with growth pressure rather than finding ways to translate its own assets into tangible value for communities experiencing economic decline. DCNR's strategies include providing grants for preserving open space and important natural resources, as well as the more challenging task of working with local governments to strengthen resource protection through land use planning and regulation. Another important aspect of the work in the Lehigh Valley is the presence of major urban centers, which involves creating trail and greenway connections to give urban and suburban communities better access to outdoor opportunities.

DCNR's work in the Lehigh Valley is an instructive case, not only because the region has long been a focus of the Department's grant investments and community engagement, but also because it has served as a prototype for what is now known as the Conservation Landscape Initiatives (CLIs). While DCNR is not a major land manager in the Lehigh Valley, the Department has played a significant role in the region as a grantmaker through such programs as Rivers Conservation, Greenways, and the Heritage Parks – all of which predate the current administration. Moreover, Jacobsburg Environmental Education Center, one of the region's two state parks, has for years been active in working collaboratively with local communities and conservation organizations. The partnerships created by DCNR's grantmaking and the activities of its park staff created a firm foundation on which a regional initiative could be built. In fact, after visiting the area in 2004 and witnessing the collaborative efforts stimulated by DCNR's work, DCNR Secretary Michael DiBerardinis directed staff to develop a "Regional Approaches" work plan, which, two years later, became the basis for the new CLI concept.

Lehigh Valley Greenways is thus a model for engaging communities and organizations in a growing urban and suburban area, using DCNR's grant resources and the expertise of its staff to guide development, protect natural resources, and improve quality of life for residents.

## About Lehigh Valley Greenways

Lehigh Valley Greenways encompasses Lehigh and Northampton counties in northeast Pennsylvania. Pennsylvania's third largest urban area, with about 630,000 people, the Lehigh Valley consists of three cities – Allentown, Bethlehem and Easton – and a total 62 municipalities. It is one of the state's fastest growing regions, with a population increase of 8.7 percent between 2000 and 2007, largely as a result of an influx of new residents from nearby New Jersey and New York.

The Lehigh Valley has traditionally been identified as a distinct region. And Lehigh and Northampton counties have a history of working collaboratively, as evidenced by the fact that the two counties have jointly supported a regional planning commission since 1961. The Lehigh Valley Planning Commission (LVPC), an important partner in LVG, prepares regional comprehensive plans and provides guidance to local municipalities in land use management.

Unlike most of the other CLI regions, the Lehigh Valley includes little DCNR land. There are only two state parks: Jacobsburg Environmental Education Center (EEC), a 1,168-acre park in central Northampton County, and Delaware Canal State Park, a 60-mile linear park following a former tow-path along the Delaware River between Easton, Northampton County, and Bristol, Bucks County.

While Jacobsburg EEC has played a key role in LVG, Delaware Canal State Park is mostly in Bucks County and has not figured prominently in the initiative. The region includes no state forest land.



The work in the Lehigh Valley focuses primarily on greenways, trail development, and land preservation in five sub-landscapes. These include:

- The **Two Rivers Area** in central Northampton County – a north-south corridor following the Bushkill Creek and its tributaries in the north and the Delaware River south to the county line, including the city of Easton. Jacobsburg EEC lies in the heart of the corridor.
- The **Martins-Jacoby Watershed** in northeastern Northampton County – including the drainages of the Martins and Jacoby Creeks and several smaller streams. Within this watershed is the Greater Minsi Lake Corridor, an area of forests and wetlands that includes one of the largest collections of vernal pools in Pennsylvania.
- The **Lehigh Valley Highlands** – encompassing South Mountain, a ridge of hills that parallels the southeastern boundaries of Lehigh and Northampton counties and includes the southern portions of Allentown, Bethlehem, and Easton. This is part of a federally designated landscape stretching from Connecticut through New York and New Jersey into southeastern Pennsylvania. The four-state Highlands region is the focus of an interstate conservation effort begun in 1990 and coordinated by the USDA Forest Service.
- The **Jordan Creek Greenway** – a corridor running through central Lehigh County encompassing the Jordan Creek watershed, from Kittatinny Ridge to the city of Allentown. It includes the Trexler Nature Preserve, a county-owned park.
- The **Blue Mountain/Kittatinny Ridge** – Known locally as the Blue Mountain, Kittatinny Ridge is a long mountain ridge that begins in northern New Jersey, crosses the Delaware River at the Delaware Water Gap, and runs southwest for 185 miles to the Maryland line. It forms the northwestern border of Lehigh and Northampton counties. A major migration flyway for raptors and other birds, Kittatinny Ridge is the focus of an inter-organizational conservation project led by Audubon Pennsylvania. The Appalachian Trail follows the crest of the ridge as it traverses eastern Pennsylvania.

LVG describes its vision and goals as follows:

**Vision:** By 2015, greenways and trails connect natural and cultural resources across the Lehigh Valley linking urban areas to outdoor experiences, protecting watersheds, and retaining the character of the landscape, the region’s heritage, and the community.

**Goals:**

- **Land Conservation & Restoration:** Conserve and connect at least 25 percent of the natural areas with high conservation value to preserve the Lehigh Valley’s remaining unprotected significant natural areas and watersheds.
- **Outdoor Recreation & Trail Connections:** Create greenways and trail connections that connect people and outdoor recreation experiences in core communities to valued natural, recreational, and cultural resources.
- **Community Revitalization:** Revitalize core communities of Allentown, Bethlehem, and Easton by integrating green infrastructure into riverfront development, greenways and trails, and neighborhood revitalization projects.
- **Local Education & Outreach:** Increase the understanding and use of smart growth land use practices to create more livable and sustainable communities and protect the quality of life.

## Development of the Lehigh Valley Greenways Initiative

With the population forecast to more than double during the next several decades, preservation of open space, farmland, and natural resources has been a major focus of Lehigh Valley’s planners and local governments. This emphasis is clearly expressed in the Lehigh Valley Planning Commission’s Comprehensive Plan, updated in 2005, which includes an inventory of natural resources and a system

for ranking preservation priorities. The counties and several local governments in Northampton County have money available for open space preservation. And voters in the region have strongly supported state, county, and local referenda to fund parks and the protection of natural resources and farmland.

### *Early Planning Work Funded by DCNR Set the Stage*

For years, DCNR's Bureau of Recreation and Conservation (BRC) has provided grant support for conservation efforts in the region. In the late 1990s and early 2000s, for example, the Rivers Conservation Program funded the Wildlands Conservancy to prepare several watershed plans in the Lehigh Valley, including plans for the Jordan Creek, the Monocacy Creek, and the entire Lehigh River watershed. The program also supported the Two Rivers Area Council of Governments to produce a Rivers Conservation Plan for the Bushkill Creek and adjacent sub-watersheds.

The latter provided the basis for the subsequent Two Rivers Area Greenway Plan, which was prepared in 2003-2005 with funding from DCNR, Northampton County, and participating municipal governments. The plan lays out a vision for riparian restoration, a connected greenway, and a trail leading from Easton north to Kittatinny Ridge. The Bushkill Stream Conservancy, a local watershed organization, served on the steering committee for the Two Rivers Area Greenway Plan, and since its completion has focused its energies on implementing the plan.

### *Local DCNR Staff Played an Early Role in Community Planning Efforts*

Dale Prinkey, former Park Manager of Jacobsburg EEC, and his environmental educator Bill Sweeney, emerged as important partners in conservation activities in the Bushkill area. Realizing that encroaching development was threatening to convert the park into an ecological island, Prinkey and Sweeney took an active role in the development of the Two Rivers Area Greenway Plan and began working closely with the Bushkill Stream Conservancy as well as nearby municipalities to promote stream conservation and resource protection. Responding to an invitation from the Bushkill Stream Conservancy, the Doylestown-based Heritage Conservancy also began working in the area and designated it as one of its "Lasting Landscapes" – an area of focused land preservation activity.

### *DCNR Leadership Seized the Opportunity to Put a Regional Approach on the Ground*

The energy and enthusiasm surrounding the Two Rivers Area Greenway Plan and its implementation was the initial inspiration for LVG. Participants trace the genesis of the initiative to July 2004, when Secretary DiBerardinis visited Jacobsburg EEC and was impressed by the community involvement of the park staff and by the extent to which the various groups and municipalities were collaborating. The Secretary felt there were opportunities to build upon and extend DCNR's efforts in the region. He saw it as a good place to put into practice ideas that had repeatedly surfaced during the planning process initiated at the start of his tenure – that DCNR should coordinate its activities to focus on selected regions and that the Department should "take what it knows to where people live."

The Secretary charged Diane Kripas, Chief of BRC's Greenways and Conservation Partnerships Division, with the task of developing a regional approach to work in the area, one that would coordinate the work of DCNR's various bureaus and would involve other state and federal agencies as well as private organizations. The Secretary viewed the regional approach in the Lehigh Valley as a potential model for similar coordinated efforts in other parts of the state. In fact, he designated it as a priority item to push forward implementation of the DCNR Blueprint for Action, the product of the Department's year-long planning process. As noted earlier, the resulting Regional Approaches work plan, together with ongoing efforts in the Pennsylvania Wilds, later became the prototype for the Conservation Landscape Initiative concept.

A meeting convened in September 2004 brought together groups and leaders who were already involved in watershed planning and conservation initiatives in the Bushkill Creek area, including representatives from county and local governments as well as private conservation and heritage organizations. The meeting was the basis for creating the team of external stakeholders that provides guidance for the initiative in partnership with DCNR staff.

### *A Local Lead Identified*

Although Diane Kripas provided strong internal leadership for DCNR and made frequent trips to the region from Harrisburg, it soon became clear that there was also a need for a coordinator based in the region who could work closely with external partners. The Delaware and Lehigh National Heritage Corridor (D&L), a nonprofit organization that manages a federal- and state-designated heritage area, was chosen to host this position because it was perceived as a neutral and well-respected entity. A longtime partner of DCNR, D&L focuses on completing the Delaware and Lehigh Trail, which runs through the Lehigh Valley, and on revitalizing communities within the corridor. Sherry Acevedo, Resource Conservation Specialist at D&L, was hired as LVG's regional lead in August 2005. D&L also receives an annual block grant of approximately \$300,000, which it distributes to other organizations and communities in the form of small grants.

### *Defining the Boundaries Brought in New Partners and Helped Shape the Current Work*

An important question as the initiative was being developed was how to define the boundaries of the region. At first the focus was exclusively on the Two Rivers Area Greenway Plan and the Bushkill Creek area, encompassing 17 municipalities in central Northampton County, including the city of Easton. The initial round of block grant funding targeted only this area, providing support for early implementation projects identified in the greenway plan. However, the DCNR work team felt this geography was too narrow to constitute a meaningful region, and Secretary DiBerardinis wanted the boundaries to be drawn broadly enough to include the cities of Allentown and Bethlehem in addition to Easton. Despite resistance from some members of the external work team who felt that engaging both counties and all three cities would make the process too complex, the decision was made to include all of Northampton and Lehigh counties.

Fortunately, prior DCNR activities in the broader Lehigh Valley region had laid a firm foundation for an expanded initiative. The various watershed and greenways plans mentioned earlier helped set priorities for land protection and watershed restoration. In addition, the Lehigh Valley Planning Commission's regional comprehensive plan, completed in 2005, included a natural resources element; and LVPC was also in the process of completing a greenways plan for the entire Lehigh Valley (with DCNR). These two regional plans provided a basis for defining the five sub-landscapes described on page 4. The sub-landscapes extend across both counties, include most of the region's sensitive resource areas, and provide ample linkages to all three urban areas. In early 2007, the steering committee expanded to reflect the initiative's broader scope, and lead organizations and committees were designated for each of the sub-landscapes.

## **Organizational Overview**

Lehigh Valley Greenways is led by an internal team composed of representatives from three of DCNR's bureaus: Forestry (Tim Dugan, Assistant District Forester), Recreation and Conservation (Diane Kripas, Lorne Possinger, and Dennis DeMara), and Parks (Mike Jones, Park Manager at Jacobsburg EEC).

The leadership team meets quarterly with a steering committee comprised of various stakeholders, including local nonprofits, conservancies, and community partners. The steering committee made a conscious decision not to send an open invitation to local officials to keep the committee from

becoming too large. The leadership team provides oversight and guidance to the local lead partners and assists them in developing work plans.

The local lead, Sherry Acevedo at D&L, solicits proposals for DCNR-funded mini-grants and coordinates a grant review committee, which includes DCNR staff and representatives from the Department of Environmental Protection and local organizations. Grant decisions are made through a consensus-based process and are sent to the internal team leads for approval. D&L then serves as the local contact for the grantees. To date, 62 projects<sup>1</sup> have been funded through the mini-grant process (including projects that have been completed, initiated, or are currently advancing). D&L also acts as an information and networking clearinghouse for organizations seeking partnerships, consultants, and assistance. D&L hosts the quarterly steering committee meetings, where the five sub-landscape committees provide a status update on their work and progress. In addition to the steering committee, D&L also convenes an “Ecology Team” to coordinate land protection and restoration activities.

#### *Spotlight: Local Networking in Action*

Quarterly meetings of the steering committee at D&L provide a time for local organizations to network and update each other on their work. In one case, the Martins-Jacoby Watershed Association, an organization based in Northampton County, was having difficulty finding a consultant who could help the organization implement a cost-effective approach to stream bank restoration. Cost was a vital concern because the Association hoped the project would serve as a model that could be widely replicated. However, it was discouraged by initial proposals putting the cost of two projects at \$100,000. Rebecca Kennedy, a watershed specialist working with the Lehigh County Conservation District, suggested that the Pennsylvania Fish and Boat Commission might be able to provide low-cost design and construction services. She put the Association in touch with her contact at Fish and Boat and worked with the Association to fill out permitting applications and other paperwork.

Thanks to networking opportunities created by Lehigh Valley Greenways, a Lehigh County agency provided assistance to an organization in Northampton County and enlisted the help of a state agency. This interagency and cross-county partnership saved the Association \$3,000 in consulting fees. However, the real savings came in the project build-out phase. Fish and Boat was able to design and complete both projects for \$20,000 – \$80,000 less than initial proposals. The low cost makes the project much more attractive and viable as a model for future riparian or stream bank restoration projects.

## LVG Partners and Their Activities

### DCNR Bureaus and Offices

BRC and other DCNR bureaus and offices<sup>2</sup> have played significant roles in LVG, providing technical and organizational assistance and contributing to local program implementation.

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<sup>1</sup> Block grants have been disbursed through five grant rounds. Rounds 1 and 2 were combined, with a grant award of \$441,500 and a projected local match of \$391,500. Round 3 had a grant award of \$285,000, with a projected match of \$279,000. Round 4 had a grant award of \$300,000, with a projected match of \$267,000. Round 5 had a grant award of \$300,000, with a projected match of \$267,000.

<sup>2</sup> The work of other bureaus includes: the Bureau of Topographic and Geographic Survey has provided technical assistance for map and GIS trainings; The Bureau of Facility Design and Construction has contributed design assistance on projects such as the pedestrian bridge on the PPL Trail and design plans for Bushkill Township, and is providing design support for the Jacobsburg EEC and the Delaware Canal reconstruction project; the Office of Conservation Science has provided technical assistance and organized

- **The Bureau of Recreation and Conservation** serves as the CLI internal lead, allocates grant money to the CLI through the Community Conservation Partnerships Program (C2P2)<sup>3</sup> process, aligns DCNR grants with the CLI's strategic goals, and serves as a liaison with other state agencies on strategic grantmaking. The Bureau also provides technical assistance to local parks, recreation, and trail projects.
- **The Bureau of State Parks** has two parks located in the Lehigh Valley: Jacobsburg Environmental Education Center (EEC) and the Delaware Canal State Park. Jacobsburg has been active in providing conservation recommendations and educational programs. A building to house Jacobsburg's environmental education activities is under construction. Delaware Canal State Park has suffered flood damage and has not played an important role in the CLI to date.
- **The Bureau of Forestry** has two forest districts that together encompass LVG but has no state forest in the region. Forestry staff assist with block grant-funded urban forestry initiatives in Easton and Bethlehem, work with the TreeVitalize program in partnership with the county departments of community and economic development, and play an active role in the Jordan Creek sub-landscape.

### *Valuable Role as a Grantmaker*

DCNR's Bureau of Recreation and Conservation plays a particularly important role in the Lehigh Valley as a grantmaker. The grants are distributed primarily through the block grant to D&L and directly from DCNR's central office in Harrisburg through the C2P2 process.

Of the grants made in the Lehigh Valley, 52 totaling \$10.58 million have been used to meet the strategic objectives of the CLI. Since this funding requires a one-to-one match, an additional \$10 million, at least, has been leveraged. In addition to the money distributed directly through DCNR and the matches, funding from other state agencies flows into the Lehigh Valley. The Department of Environmental Protection and the Redevelopment Capital Assistance Program (RCAP) through the Pennsylvania Office of the Budget are two major sources of support to the region. For example, RCAP provided a \$9 million community development grant to the city of Easton to fund the Bushkill Creek Initiative to redevelop Bushkill Creek and for various community development projects.

The following chart details the number and size of C2P2 grants specific to the initiative from 2003 to 2008 and relates them to the strategic goals of LVG.

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a sustainable community parks conference with a local planning committee; and the Office of Education, Communications and Partnerships assists with public relations and communications as needed.

<sup>3</sup> The C2P2 process allocates funding gathered from a variety of sources, including Growing Greener I and II and Keystone funding. All of DCNR's funding sources are combined into one annual application cycle (generally early spring), and there is a single application format and process with one grant manual (except for the Heritage Parks program). DCNR's Bureau of Recreation and Conservation provides a single point of contact for communities and nonprofit conservation agencies seeking state assistance through the C2P2 program.

<b>Grantee Type</b>	<b>C2P2 Grantees</b>	<b>Grant Purpose</b>	<b>Number of Grants</b>	<b>Total Grant Value</b>	<b>Average Grant Size</b>
<b>Cities</b>	Allentown City, Bethlehem City, Easton City	Planning, Feasibility Studies, Parks, Trail Work, Skatepark, Swimming Pool	13	\$2,880,000	\$222,000
<b>Municipalities</b>	Allen Township, Bushkill Township, Fountain Hill Borough, Freemansburg Borough, Lower Saucon Township, Moore Township, Palmer Township, Pen Argyl Borough, Salisbury Township, South Whitehall Township	Acquisition, Planning, Trail Work, Bike Paths	10	\$1,772,100	\$177,000
<b>Counties</b>	Lehigh County, Northampton County	Land Acquisition, Planning, Parks, TreeVitalize	8	\$2,734,000	\$342,000
<b>Land Trusts</b>	Heritage Conservancy, Natural Lands Trust, Inc., The Nature Conservancy, Wildlands Conservancy, Inc.	Acquisition, Easements, Trail Study	13	\$1,592,600	\$123,000
<b>Organizations</b>	Delaware & Lehigh National Heritage Corridor, Inc Lehigh Valley Planning Commission Martins-Jacoby Watershed Association Nazareth Area Council of Governments	Planning, Partnerships, CLI Block Grants	8	\$1,603,000	\$200,000
<b>Total</b>			52	\$10,581,700	\$203,000

### *Spotlight: Jacobsburg Environmental Education Center*

Jacobsburg EEC is DCNR's primary park in the Lehigh Valley, and from the beginning it has played a central role in Lehigh Valley Greenways. As noted earlier, it was a meeting at Jacobsburg in July 2004, when Secretary DiBerardinis learned about collaborative activities surrounding the park, that inspired the development of a local DCNR-partnership and a Regional Approaches work plan that was a precursor of the CLI concept. Jacobsburg staff were engaged with the community before LVG was launched, working closely with Bushkill Township and the Bushkill Stream Conservancy and taking a lead role in the Two Rivers Area Greenway Plan. And their community activities have only increased since then. Jacobsburg staff, consisting of a park manager and two salaried educators, conduct outdoor recreational programming activities, including hiking, kayaking, and visits to protected conservation areas outside the park. They work with partners to provide technical assistance in riparian restoration projects and trail projects. They operate a demonstration site on warm season grasses, which are important in controlling invasive species, and assist partners with landscape management. In addition, they collaborate with the Wildlands Conservancy in conducting DCNR-sponsored Adventure Camps, which are five-day summer educational programs for youth from Allentown and Bethlehem.

A major challenge for Jacobsburg EEC has been the absence of a building to accommodate meetings and programming activities. The EEC is one of four Bureau of State Parks environmental education centers and the only one without a building. For meeting space, staff have often had to rely on outdoor pavilions or offsite locations such as schools or municipal buildings. Significant progress has been made toward developing a new Resource Conservation Center for Jacobsburg. Designs for a \$4 million LEED-certified Resource Conservation Center have been completed and construction is underway.

## Partnerships with Other State Agencies Coordinate and Extend Resources

DCNR has actively sought to partner with other state agencies, and has played an important role in promoting interagency cooperation in the Lehigh Valley by participating in the Commonwealth's Land Use, Transportation, and Economic Development (LUTED) program. Created to help state agencies better coordinate their investment decisions, LUTED divided the state into ten regions and assembled steering committees to develop Regional Action Plans. These plans outline ways for agencies to integrate their policies, avoid conflicts, and make more efficient use of resources. DCNR worked with LVPC and other partners to have the Lehigh Valley defined as one of the regions and provided grant funding to support the local LUTED process. Diane Kripas served as the lead for the Lehigh Valley steering committee, which also included representatives from the departments of Agriculture, Community and Economic Development, Environmental Protection, and Transportation. Lehigh Valley's Action Plan, published in February 2008, described three specific projects, one for each city, that provide good opportunities for coordinated investment:

- **Allentown:** Mixed-use development along Allentown's waterfront.
- **Bethlehem:** Redevelopment and transportation improvements in South Bethlehem, including the DCNR-supported South Bethlehem Greenway project.
- **Easton:** Redevelopment of the Bushkill Creek corridor, including the creation of a trail and related recreational facilities.

LVG has also involved other partnerships with state agencies:

- **The Department of Community and Economic Development (DCED)** is the newest state partnership for DCNR in this CLI. This partnership began in 2008, when Cindy Campbell, DCED Local Government Policy Specialist, was part of the review cycle for Phase 5 of the block grant application review. DCED specifically weighed in on issues involving the Kittatinny Ridge.
- **The Department of Environmental Protection (DEP)** has contributed to several water resource projects, including petitioning for an Exceptional Value upgrade for Sobers Run in Bushkill Township, expediting permits on riparian restoration projects, and collaborating with DCNR in supporting the Saucon Creek and Martins-Jacoby Watershed plans. DCNR and DEP also partnered on brownfield reclamation work in Easton. Bob Pitcavage, Environmental Community Relations Specialist in DEP's regional office in Wilkes-Barre, has served as a key liaison with DEP.
- **The Pennsylvania Fish and Boat Commission** is a relatively new partner in LVG. Fish and Boat has been active in water resource conservation projects, such as riparian and stream bank restoration in the Martins-Jacoby Watershed. The Commission has also completed work on stream habitat structures and assisted Conservation Districts in acquiring permits through DEP.
- **The Pennsylvania Game Commission** has worked with DCNR on acquiring land for a section of trail on Kittatinny Ridge. In addition, the Game Commission has provided surveying assistance on land that was acquired by the Wildlands Conservancy and will be turned over to local municipalities.
- **The Pennsylvania Department of Transportation (PennDOT)** and the **Pennsylvania Department of Agriculture** have not as yet been active partners in the CLI, though there may be opportunities for collaboration with both agencies. DCNR sees advantages in working with PennDOT on trail projects, particularly where street crossings are involved. Like DCNR, the Department of Agriculture funds land preservation in the Lehigh Valley, but its farmland preservation program does not provide for public access or trails. Nevertheless, many farmland parcels include streams and riparian areas, and DCNR staff feel that it would be fruitful to collaborate with the Department of Agriculture.

### *Spotlight: A More Integrated Approach to Watershed Planning*

Since the 1990s, DCNR and DEP have both been major supporters of watershed planning in Pennsylvania. DCNR's Rivers Conservation Program was initiated in 1995 using the Keystone Recreation, Park and Conservation Fund Act of 1993, which derives revenue from a real estate transfer tax. DEP's watershed planning program was created in 1999 using Growing Greener funds. While the two programs differ in emphasis – DCNR's includes planning for recreation and river access while DEP's focuses on controlling non-point source pollution – both have been used to fund comprehensive watershed planning. Despite their similar purposes, the programs have operated largely in isolation from each other and have sometimes produced incompatible plans for the same areas. In fact, when LVG leaders reviewed completed watershed plans for the Lehigh Valley, they found inconsistencies between the two sorts of plans that reduced their usefulness in setting conservation priorities.

To avoid this problem in the future, Diane Kripas and Sherry Acevedo met with Bob Pitcavage of DEP's regional office to discuss opportunities for coordinating the two programs. The meeting led to a decision to combine resources from both agencies to support a watershed plan for the Saucon Creek. Produced by the Lehigh County Conservation District with assistance from the Northampton County Conservation District, the Saucon Creek Watershed Association, and the Wildlands Conservancy, the Saucon Creek plan is now complete. It is regarded as a high-quality study and is serving as a model for another jointly funded watershed plan for the Martins-Jacoby Watershed, which is being produced by the Martins-Jacoby Watershed Association in cooperation with Upper Mount Bethel Township.

## Land Conservancies Are Helping to Lead the Efforts

Land conservancies play an active role in LVG, serving on the steering committee, as partners on projects, and as recipients of major DCNR grants. There are four large conservancies working in the region: Wildlands Conservancy, Heritage Conservancy, Natural Lands Trust, and The Nature Conservancy. The land conservancies use the steering committee and Ecology Team meetings as opportunities to update each other on their conservation efforts.

- **Wildlands Conservancy** leads the Jordan Creek and Highlands sub-landscapes and has completed the Jordan Creek Greenway Plan, which serves as an implementation plan for the area. Wildlands is also working closely with Lehigh County in developing the Trexler Nature Preserve. In the Highlands sub-landscape, Wildlands has worked with the Highlands Coalition to provide environmental needs assessments for municipalities. It has also created the "Hike the Highlands" map series and conducted preliminary planning for a regional trail system in Highland communities. In addition, Wildlands partners with Jacobsburg EEC to conduct the Adventure Camp for urban youth.
- **Heritage Conservancy**, based in Doylestown, was invited to the area by the Bushkill Stream Conservancy to assist with implementation of the Two Rivers Area Greenway Plan. The Bushkill Creek watershed has been designated a "Lasting Landscape," an area where the Conservancy works with local communities to conduct a comprehensive approach to open space protection and historic preservation. Heritage Conservancy is also working in the Martins-Jacoby Watershed. In addition to assisting with land acquisition, Heritage Conservancy helps communities develop and implement open space plans. With block grant funding from DCNR, Heritage Conservancy has produced *Leaders in the Fields*, a report describing seven successful open space referendums in Northampton County. This document serves as a resource for other municipalities interested in launching open space initiatives.
- **Natural Lands Trust** works primarily on land protection in the Northampton Highlands and Kittatinny Ridge and on municipal planning across the Lehigh Valley. It plays an important

role in educating Lehigh Valley municipalities on conservation-oriented development techniques through its program entitled “Growing Greener: Conservation by Design.”

- **The Nature Conservancy**, a leading national land trust focusing on biodiversity conservation, has focused its work in the Lehigh Valley in the Greater Minsi Lake Corridor, part of the Martins-Jacoby Watershed and an area important for its numerous vernal pools. A strong partnership between Northampton County and The Nature Conservancy predates the formation of LVG.

*Spotlight: The Greater Minsi Lake Corridor*

The Greater Minsi Lake Corridor is an area of about 2,000 acres between Minsi Lake, which is protected as part of Northampton County’s 300-acre Minsi Lake Wilderness Area, and Kittatinny Ridge. In addition to being an important recreational resource, the corridor contains hundreds of vernal pools that fill with water in the spring and serve as important habitat for amphibians and other species. Because of its ecological value, The Nature Conservancy identified the area as a priority about ten years ago. Since then the organization has worked closely with the Northampton Parks and Recreation Division as well as with Wildlands Conservancy, Heritage Conservancy, Martins-Jacoby Watershed Association, Upper Mount Bethel Township, and DCNR.

During the past decade, The Nature Conservancy and Northampton County have protected nearly 800 acres in the Greater Minsi Lake Corridor, adding to conservation lands that were already held by the county. Two important parcels, acquired with support of DCNR funding, were Totts Gap (431 acres) and the Wolf Property (107 acres). Both are now owned by Northampton County. While work on these acquisitions was initiated prior to the formation of Lehigh Valley Greenways, they represent important steps toward the CLI’s land conservation goals.

Lehigh Valley Greenways has helped engage the local municipality, Upper Mount Bethel Township, as an active partner in conservation efforts. For example, the township has worked with Heritage Conservancy to produce an open space plan. It is also collaborating with Martins-Jacoby Watershed Association on a joint DEP/DCNR watershed plan. These activities complement land preservation efforts in the Upper Minsi Lake Corridor.

## Other Local Nonprofit Partners Provide Programming and Conservation Work

Smaller nonprofit partners, such as the Bushkill Stream Conservancy, the Martins-Jacoby Watershed Association, and the Lehigh Gap Nature Center, play an important role at the local level, conducting programming and ground-level conservation work. As noted earlier, the Bushkill Stream Conservancy, a volunteer organization, was active in the development of the Two Rivers Area Greenway Plan and actively promotes implementation of that plan. Working with D&L, it serves as the lead for the Two Rivers Area.

The Martins-Jacoby Watershed Association is another volunteer organization with a strong track record of generating matching funds. Its primary goal is to use education to help landowners and municipalities protect the area’s streams and develop fish habitat.

Through native-plant restoration, outreach, and education, the Lehigh Gap Nature Center is working to restore an area whose ecology was devastated by a former zinc smelting operation near the gap where the Lehigh River cuts through Kittatinny Ridge. DCNR assisted with a \$250,000 grant for land acquisition and with subsequent grants for planning and development. D&L played a major role in this project, assisting with land acquisition, master plan development, and re-vegetation on the ridge.

In 2006, the U.S. Department of the Interior recognized these efforts by granting Lehigh Gap Nature Center and D&L a Cooperative Conservation Award.

*Spotlight: Planning and Implementation in the Two Rivers Area*

Prior to the creation of Lehigh Valley Greenways, much of DCNR's support for conservation activities in the Lehigh Valley and elsewhere took the form of grants to support planning for watershed restoration or greenway development. The resulting plans were often lengthy, highly descriptive documents that were expensive to produce. Some criticized the Department for placing too much emphasis on the plan and too little on implementation. Working through LVG, while DCNR still recognizes the importance of planning as a way to define priorities and coordinate activities, there has been a shift in focus from planning to implementation and from long documents to more concise action plans.

The Two Rivers Area Greenway Plan is a case in point. Initiated as a project of the Twin Rivers Council of Governments and the Bushkill Stream Conservancy in 2003, before the creation of Lehigh Valley Greenways, the greenway plan was a comprehensive undertaking. The final document is 194 pages, and contains a great deal of information on history, demography, land use, zoning, natural resources, cultural resources, and other features of the area. However, the most useful portion of document has proven to be a relatively brief action plan that lays out a series of early implementation items. Before the plan was completed, LVG adopted these early implementation items as the basis for its first round of block grant funding. Even though LVG has since expanded to cover the entire Lehigh Valley, implementation of the Two Rivers Area Greenway Plan continues to be a major focus of the initiative. Without the CLI and its resulting partnerships, implementation would have been left largely to the Bushkill Stream Conservancy, a small volunteer organization with limited resources, and it is likely that the plan would have done little more than sit on a shelf.

To provide further impetus for implementation, DCNR and the PPL Corporation jointly funded the Two Rivers Area Greenway Trail Implementation Study, completed in early 2009. This document provides in-depth guidance for filling gaps in the trail system. As Sherry Acevedo puts it, it contains "no fluff"; it focuses on what LVG partners need to know to move forward with trail development. As such, it exemplifies DCNR's emerging approach to action-oriented planning.

## County and Local Governments Participate in Various Ways, from Education to Land Use Planning

County governments are involved through county departments of community and economic development (DCEDs). These agencies distribute TreeVitalize money – a DCNR program that began in southeastern Pennsylvania and was extended to the Lehigh Valley to complement LVG activities – to local municipalities and coordinate with municipal Environmental Advisory Committees (EACs). EACs are small groups of appointed citizens who advise the municipal planning commission, park and recreation board, and elected officials on the protection and management of natural resources. County DCEDs also take the lead on a number of local educational programs. A particularly successful example was Lehigh County DCED's coordination of a training event on "Better Models for Development" conducted by Ed McMahon, a noted expert in conservation-oriented development.

Another example is that Lehigh County has partnered with DCNR, as well as with the Trexler Trust, the Wildlands Conservancy, the Game Commission, and other agencies, to develop and improve the Trexler Nature Preserve, a 1,100-acre county-owned property in the Jordan Creek watershed.

County conservation districts (which are not arms of county government, but typically receive funding from counties as well as state and federal agencies) also participate as partners with DCNR and local organizations. The Northampton County and Lehigh County Conservation Districts are both active participants, providing watershed specialists who offer technical assistance to nonprofits and local municipalities.

*Spotlight: The Trexler Nature Preserve*

Located about ten miles northwest of Allentown, Trexler Nature Preserve was originally a private zoo donated to Lehigh County in the 1930s and operated as a refuge for formerly endangered species such as elk and bison. In 2004, partly in response to legal action by the Trexler Trust, the county decided to open the entire property to the public and operate it as park and environmental education center.

Lehigh Valley Greenways has adopted the redevelopment of Trexler Nature Preserve as one of its signature projects. Lehigh County lacks a state park, and the preserve can help fill that gap even though it will continue to be operated by the county. In fact, LVG leaders regard the Trexler Nature Preserve as a potential “sister” to Jacobsburg EEC and are using the Northampton County park as a model.

The redevelopment efforts include construction of an environmental education building, which is scheduled to be completed by the end of 2009. The building will include office space for a service forester and other Bureau of Forestry staff and will serve as a satellite office of the William Penn State Forest District, giving DCNR a physical presence in Lehigh County for the first time. The building will also include space for community and educational meetings, much like the facility that is currently being built at Jacobsburg.

Plans include 18 miles of trails, of which about 12 miles have been opened. The Bureau of Forestry is working with the Wildlands Conservancy on trail construction, invasive species removal, and reforestation projects. Another partner in the effort is the Game Commission, which is assisting with vegetation management and patrolling of the property’s north range, which will be open to hunting.

Lehigh Valley Planning Commission, which is governed jointly by Lehigh and Northampton counties, plays a major role in regional land use and conservation planning. In addition to preparing regional plans, LVPC serves as a resource and technical assistance provider for local governments. LVPC’s regional open space and greenway plans and its natural resource inventory have been valuable resources for LVG and have, in large part, defined the region-wide vision for the initiative.

LVPC has served as an important liaison between DCNR and local municipalities, which control land use regulation. For example, LVPC received a DCNR grant of \$20,000 grant to develop model conservation ordinances and is now actively working with municipalities to encourage their adoption. In addition, LVPC has advocated for the formation of municipal EACs and works with those local advisory bodies to educate municipal decision-makers.

DCNR also works directly with municipalities – including the cities of Allentown, Bethlehem, and Easton – providing money for land acquisition, trail and greenway development, tree planting, and other purposes. For example, Allentown, Bethlehem, and several surrounding municipalities are mobilizing volunteers and planting street trees through TreeVitalize. Easton and Bethlehem have developed urban forestry programs and have received block grant funding to help hire qualified personnel. Allentown is studying the feasibility of a trail network system around the city, Bethlehem is developing much-needed green space in its south side neighborhood through the South Bethlehem

Greenway project, and Easton is constructing a three-mile trail along Bushkill Creek that will be part of the Two Rivers Area trail system.

## LVG Accomplishments

As discussed earlier in this report, LVG describes its purposes in terms for four broad goals: land conservation and restoration, outdoor recreation and trail connections, community revitalization, and local education and outreach. Overall, LVG has made important positive strides under each of these goals. Major accomplishments to date in each of these areas are summarized below. Few specific targets were set but, where possible, progress toward a target has been described.

### Goal 1: Land Conservation and Restoration

As the table below shows, LVG can claim at least partial credit for protecting 1,299 acres of conservation land. This figure includes two fee simple acquisitions in the Greater Minsi Lake corridor (Totts Gap and Wolf Property) that were initiated prior to creation of LVG. (See the spotlight on p. 12.) Other large acquisitions include the Horth easement, a Wildlands Conservancy acquisition that protects a property listed as a high priority in several open space plans, and the Charron property on Kittatinny Ridge, an important link connecting the Bushkill Creek/Two Rivers corridor with the Appalachian Trail. The latter has been acquired by the Wildlands Conservancy but will be transferred to the Game Commission for permanent ownership.

Project Name	Applicant	Location	Type of Acquisition	Acres Protected
Totts Gap	The Nature Conservancy	Greater Minsi Lake Corridor	Fee simple acquisition	431
Horth	Wildlands Conservancy	Two Rivers Area, Highlands, Williams Twp	Conservation easement	215
Charron	Wildlands Conservancy	Kittatinny Ridge	Fee simple acquisition	119
Wolf Property	The Nature Conservancy	Greater Minsi Lake Corridor	Fee simple acquisition	107
Dravec	Lower Saucon Twp	Lower Saucon Twp, Highlands	Both acquisition & easement	72
Salisbury School Authority	Salisbury Twp	Salisbury Twp, Highlands	Fee simple acquisition	48
Wentzell	Heritage Conservancy	Two Rivers Area, Bushkill Twp	Conservation easement	48
Lower	Allen Township	D&L Two Rivers Trail	Fee simple acquisition	45
McBrien	Natural Lands Trust	Two Rivers Area, Highlands, Williams Twp	Conservation easement	35
South Bethlehem Greenway	City of Bethlehem	Bethlehem, Hill to Hill Bridge to Saucon Park	Fee simple acquisition	28
Whitetail Bowman	Heritage Conservancy	Lower Saucon Twp, Highlands	Conservation easement	27
Heyer Grist Mill	Heritage Conservancy	Two Rivers Area, Bushkill Twp	Conservation easement	23

Seifert-Ray	Heritage Conservancy	Lower Saucon Twp, Highlands	Conservation easement	19
PPL Two Rivers Trail	Bushkill Township	Two Rivers Area, Bushkill Twp	Fee simple - land donation	16
Mebus	Nature Lands Trust	Two Rivers Area, Highlands, Williams Twp	Fee simple-land donation	12
Rissmiller	Wildlands Conservancy	Bushkill Twp, Kittatinny Ridge	Fee simple acquisition	12
Hersh	Wildlands Conservancy	Upper Saucon Twp, Highlands	Fee simple acquisition	11
D&L Two Rivers Trail - Lehigh Co	Wildlands Conservancy	D&L Two Rivers Area	Conservation easement	10
Garfalo	The Nature Conservancy	Greater Minsi Lake Corridor	Fee simple acquisition	6
Miller/Kies	The Nature Conservancy	Greater Minsi Lake Corridor	Fee simple acquisition	6
Mara	The Nature Conservancy	Greater Minsi Lake Corridor	Fee simple - land donation	6
Dodson Street	Fountain Hill Boro	Fountain Hill Boro	Fee simple acquisition	3
<b>TOTAL ACREAGE:</b>				<b>1299</b>

These and other LVG land conservation projects represent significant steps toward protecting critical habitat, open space, and trail corridors in a region undergoing rapid development. But the total preserved acreage falls short of the Ecology Team’s original target of protecting 1,000 acres per year. (See the section entitled “Land Preservation Challenges in the Lehigh Valley” for a discussion of these challenges and the responses to them.)

Also relevant to this goal is the completion of seven riparian restoration projects: four in the Bushkill Creek watershed (Easton, Palmer Township, Wind Gap Borough and Forks Township), two in the Martins-Jacoby Watershed along Martins Creek, and one at Sand Island along the Lehigh River in Bethlehem. While the acreage involved is not great, these projects entail considerable effort and involve collaboration with various parties. In addition to restoring habitat and improving water quality, they serve as demonstration projects, helping to educate municipalities and landowners on the value of riparian restoration and available techniques. D&L staff estimate that more than 3,200 native plants – including trees, shrubs, perennials, and native grasses – were used in the seven restoration projections.

## Goal 2: Expanded Outdoor Recreation and Trail Connections

By the end of 2008, LVG was responsible for, or contributed to, the creation of 16 miles of new trails. This includes about 12 miles of trails that were opened at the Trexler Nature Preserve.

Considerable progress has been made toward development of the Two Rivers Area Greenway Trail, designated as LVG’s number one signature project. The recently completed Two Rivers Area Greenway Trail Implementation Study lays out a plan for a major spine trail nearly 18 miles in length, running from the Delaware River in Easton to the Appalachian Trail. Another 9-mile trail between

Stockertown and the Appalachian Trail will create a “loop” trail connecting to the main spine. The study area includes an additional 24 miles of trails that exist or are proposed or planned for the future. More than 50 miles of trails are envisioned for the area, and of this amount 26 miles already exist and another 10 miles are proposed and in various stages of development. Included among the proposed trails is a 6-mile section donated by PPL Corporation to Bushkill Township in 2008.

Another important trail accomplishment is the 2008 acquisition of a nearly 3-mile, 30-acre stretch of former Norfolk Southern Railway property that will form part of the South Bethlehem Greenway. Located in Bethlehem’s urban core, an area with little green space, the South Bethlehem Greenway will create linkages to existing parks and to the Lehigh University Campus. It is also expected to contribute to local economic development and neighborhood revitalization.

### Goal 3: Community Revitalization

DCNR’s action plan completed in 2004 includes the goal of “building and maintaining attractive and sustainable communities,” not just in rural areas where DCNR’s influence has traditionally been strongest, but also in urban communities. Thanks to Secretary DiBerardinis’ insistence that LVG be expanded to include the three cities of the Lehigh Valley, Allentown, Bethlehem, and Easton have all been involved in the initiative and have benefited from its assistance. A good example is DCNR’s leadership in the Lehigh Valley LUTED process, which, as noted earlier, identified specific projects for coordinated, interagency investments in each of the three cities. DCNR is now playing a lead role in implementing those projects through its investments in the South Bethlehem Greenway and the Bushkill Creek corridor project in Easton.

Another important vehicle for promoting sustainable, attractive communities has been TreeVitalize. The program has resulted in the planting of more than 1,000 trees in Lehigh Valley communities, including all three cities as well as many townships and boroughs. In addition, DCNR funds have helped support new urban foresters in the cities of Easton and Bethlehem. (Allentown already had an urban forester.)

Also contributing to community revitalization are LVG’s investments in municipal park acquisition and development. D&L staff list 11 such projects in eight different Lehigh Valley communities.

### Goal 4: Local Education and Outreach

In an effort to educate local government officials and engage them in conservation efforts, LVG partners have encouraged the formation of municipal Environmental Advisory Committees, and DCNR has provided support to the Pennsylvania Environmental Council to help communities establish these bodies. Nine municipalities have adopted new EACs since LVG was established, and another three have recently passed EAC ordinances and are in the process creating EACs. Currently, 24 of the Lehigh Valley’s 62 municipalities have EACs or EAC ordinances.

Other accomplishments related to educating local government officials include:

- The development of four model conservation ordinances by the Lehigh Valley Planning Commission (for steep slopes, floodplains, riparian corridors, and woodlands). LVPC has begun to provide training to local government officials to urge them to adopt these ordinances.
- A two-day training event on “Better Models for Development” that attracted 250 people.

- “Creating Sustainable Community Parks,” a conference attended by 164 people.
- Completion of *Leaders in the Fields*, Heritage Conservancy’s case study report on seven open space referendums in Northampton County.

Also relevant to this objective is the design and imminent construction of three environmental education centers at Jacobsburg, the Trexler Nature Preserve, and the Lehigh Gap Nature Center. All are expected to be built by 2010.

## Challenges and Lessons Learned

### More Collaborative Grantmaking Is a Model for Other CLIs

In the PA Wilds and other CLIs with high concentrations of DCNR land, much of the work revolves around activities of the Parks and Forestry bureaus. In the Lehigh Valley, BRC plays a more central role, and changes in the way grants are handled are among the most important innovations of LVG.

The block grant to D&L for LVG funding was one of the most important changes in DCNR’s grantmaking practices and it is being used as a model for other CLIs. D&L had previous experience with block grants from DCNR; it had managed a similar funding program as Pennsylvania’s Heritage Parks Program. But the LVG block grant was the first of its kind for the Community Conservation Partnership Program (C2P2). The program is modeled after D&L’s block grants for the Heritage Parks Program, with some changes to accommodate C2P2 guidelines. It provides a more efficient way to handle small grants (up to \$40,000) and has enabled DCNR to make a larger number of grants to small organizations than would be possible through the usual C2P2 grantmaking process. In addition, by involving Sherry Acevedo and other D&L staff in the grantmaking process, the block grant supplements DCNR’s grant management staff and effectively gives the Department a larger presence in the region.

Formerly, all grant management functions for the Lehigh Valley were provided by BRC staff in Harrisburg and by regional advisors located in the Wilkes-Barre/Scranton area. With broad territories and large caseloads, these staff could spend only limited time in the Lehigh Valley. From her base in Easton, Sherry Acevedo is available to conduct site visits, not only for small grants administered through the block grant program, but also for larger C2P2 grants if they are relevant to LVG work. In addition, D&L staff spend a large amount of time with current and prospective grantees, particularly small organizations, to guide them through DCNR’s sometimes complex grant process. Without such assistance, small groups such as the Bushkill Stream Conservancy, the Martins-Jacoby Watershed Association, Lehigh Gap Nature Center, and even some small municipalities would have trouble applying for and managing DCNR grants.

Another way DCNR has used its grantmaking to advance CLI goals has been by directing grantees who receive funding for statewide projects or for projects in other regions to focus their efforts within the CLIs. In the Lehigh Valley, for example, DCNR has suggested that the Natural Lands Trust, which for a decade has received support for its Conservation by Design program, should increase its work with municipalities in the Lehigh Valley. Similarly, DCNR has encouraged the Pennsylvania Environmental Council, which receives support for its statewide program to help municipalities form Environmental Advisory Committees, to focus on developing EACs in Lehigh and Northampton County communities.

A notable outcome of the CLI approach has been better two-way communication between DCNR and the grantee community, leading to more informed and collaborative grantmaking. A recurring theme

in our interviews was improved access to DCNR decision-makers. Many commented on the frequent visits by Secretary DiBerardinis, Cindy Dunn, Diane Kripas, and other DCNR decision-makers to the Lehigh Valley, enabling local grantees to meet with them face-to-face and form personal relationships. Such interactions have helped grantees understand DCNR's priorities and constraints and tailor their applications accordingly. Conversely, they have helped DCNR staff at various levels better understand the region, individual projects, and on-the-ground challenges faced by grantees. As one partner commented,

*“Through the CLI, a number of us feel much more connected with different layers in DCNR. For example, there have been periodic events when Secretary DiBerardinis has come to hear what we're doing. It's been a wonderful opportunity. Sherry Acevedo, Dennis DeMara, Diane Kripas, Cindy Dunn – they all know about our projects. It's a much more integrated way of working with them than before. Before the CLI, we were always trying to get a regional representative out to the field. But they have huge territories, and sometimes it didn't work.”*

### *Opportunity for More Streamlining of Grantmaking Processes*

The CLI approach has not eliminated criticism of DCNR's central office grantmaking process, which many perceive to be excessively time-consuming and bureaucratic. Some say the guidelines remain too complex and include too many unnecessary technical requirements. Recipients of larger grants still have to deal with Harrisburg-based grant management staff who, according to reports, sometimes make decisions based on limited knowledge and expertise. According to one commenter,

*“It depends on who the people are in Harrisburg. Some are very thorough – critical but positive. But other people, some of whom are no longer there, just hold up the approval process. I always say, ‘Harrisburg, you don't know what these projects entail.’”*

Although the block grant process has expedited funding decisions to some extent, there are continuing complaints about the long approval process and the large amount of paperwork required even for small grants. Disappointed expectations help account for some of these criticisms; grants for projects identified as LVG priorities have not been fast-tracked to the degree that some had hoped. As another partner remarked,

*“While there have been statements made that this is special and unique, by the time it gets down to ground level there's still the bureaucratic stuff. There was a lot of animosity about heightened expectations for things that didn't happen.”*

Despite a few negative comments of this sort, most LVG partners agree that the CLI approach has fostered better dialogue between DCNR and the grantee community and resulted in better funding decisions.

### *Working beyond the Silos and Park Boundaries*

While grantmaking is a core part of DCNR's engagement in LVG, the CLI involves far more than just a new approach to distributing state money. It also entails new ways of deploying another important DCNR resource – its staff. LVG is marshalling DCNR staff to work cooperatively across bureau lines and to interact with community stakeholders in ways that are unusual for a state agency.

A theme of the CLI approach has been breaking down the “silos,” so that the Department can present itself to the public as a single organization rather than as a collection of bureaus operating

independently. Prior to the CLIs, the divisions among bureaus were deeply entrenched, especially between the two land management bureaus (Parks and Forestry) and BRC, which had been part of a different department until 1995, when it joined with Forestry, Parks, and other bureaus to form DCNR. Overcoming this legacy has been a challenge. Early LVG meetings that brought together personnel from different bureaus left them confused about how they were supposed to work together. According to one DCNR employee,

*“In the beginning we were kind of lost. We were introducing ourselves to people from other bureaus for the first time. We were, like, ‘What do we do?’”*

Over time, however, the barriers have begun to come down, with help from the CLI leaders who have brokered relationships between bureaus by matching available staff to particular needs and creating inter-bureau teams to manage specific projects.

For BRC, whose staff have deep experience dealing with a broad range of communities and stakeholder groups, working across bureaucratic lines has been less challenging than for Parks and Forestry, which have traditionally focused on managing the land and facilities within their own boundaries. In the Lehigh Valley, however, Jacobsburg EEC has set an example for the sort of beyond-the-park activities that have come to characterize CLIs. Even before the CLI, Jacobsburg staff had working relationships with personnel from other DCNR units, such as Forestry and the Office of Conservation Science, as well as with a range of community groups. Since the formation of LVG, they have expanded their work outside park boundaries. They have been leaders in pushing the concept of connected greenways and have served as a source of expertise on ecological matters. Through the Adventure Camps, Jacobsburg has extended its environmental education program beyond school events, the traditional focus of Environmental Education Centers, by strengthening its ties to urban communities. A partner from a nonprofit organization commented:

*“I would say DCNR’s biggest improvement has been Jacobsburg. Jacobsburg staff have really come out of their shell, and I’d attribute that to the CLI.”*

While work outside park boundaries may not have been actively discouraged before the CLIs, it was certainly not encouraged. To be sure, state park personnel have had their hands full in recent years managing park facilities with limited resources. But Jacobsburg EEC has demonstrated the value of deeper community engagement, and the new way of working is becoming established as part of the job of state park staff. Jacobsburg’s current Park Manager, Mike Jones in his role as the regional state park liaison for the three CLIs in eastern Pennsylvania, is now trying to foster increased community engagement among park staff in the Poconos and the Schuylkill Highlands. He reports that most park personnel are open to the approach, and although the demands of park management must take precedence, they are willing to be flexible and respond to opportunities beyond their boundaries when they arise.

Before LVG, the Bureau of Forestry had a relatively weak presence in the Lehigh Valley, mainly because the region lacks state forests. However, not all Forestry employees focus on managing state land; the Bureau’s Rural and Community Forestry Division is charged with working with communities, organizations, and landowners to foster sustainable forestry practices beyond the state forests. The Division’s main outreach staff are the service foresters, two of whom serve the Lehigh Valley – one based in Monroe County whose territory includes Northampton County, the other based in Chester County and serving Lehigh County. (The latter will be moving to an office at Lehigh County’s Trexler Nature Center once construction of that facility is completed.)

Service foresters formerly worked mainly with individual forest landowners, providing advice and technical assistance on sound forestry practices. Viewing one-on-one consultation as an inefficient way to achieve landscape-level changes, DCNR leaders under the current administration have

encouraged service foresters and other forest district staff to work more with local governments, conservation organizations, and other groups that can achieve impacts on a larger scale. This has been challenging for many because it has required a major shift in the way they operate. For Forestry staff serving the Lehigh Valley, however, LVG has provided opportunities for community engagement. As a Bureau of Forestry employee commented,

*“Before, 90 percent of the people didn’t even know we existed, so the CLI has been a door-opening event for a lot of communities.”*

Tim Dugan, a former service forester who was recently promoted to Assistant District Forester, currently works out of the district office in Chester County but is a Lehigh County native and has been active in LVG. He is part of the Jordan Creek Greenway team, has worked with Lehigh County and Wildlands Conservancy on the development of the Trexler Nature Preserve, and provides assistance to the county and municipal governments on urban forestry and TreeVitalize projects. Once the building in the Trexler Nature Preserve is completed, Dugan will be spending most of his time in that office. Early in the development of LVG, Jamie Leery, then the service forester serving Northampton County, began working actively with the city of Easton and took a lead role in reviving the city’s urban forestry program. Because of turnover in Leery’s former position, however, the Bureau of Forestry has been somewhat less active in Northampton County. The fact that the Lehigh Valley straddles two forest districts has complicated Forestry’s involvement in LVG; but that problem will soon be remedied because, in the next few months, Northampton County will become part of the William Penn Forest District, along with Lehigh County.

## Navigating Turf Issues and Increasing Communication to Create a Coordinated Approach to Conservation

One of the most commonly cited accomplishments of the LVG is its success in coordinating the conservation community, including planners, county land preservation programs, and especially private conservancies.

Most commentators acknowledge that relations among the conservancies have been somewhat competitive. DCNR may have exacerbated the competition, at least initially, by providing resources to allow several conservancies to become more active in the Lehigh Valley. This was partially in response to a desire by some local watershed organizations with work with new conservancies. However, LVG earns praise from the local conservation community for advancing a regional approach to land conservation in the Lehigh Valley by helping conservancies coordinate their efforts.

The Wildlands Conservancy is based in the Lehigh Valley and has historically been known as the region’s foremost conservancy, focusing its efforts on the two-county Lehigh Valley and the ten-county Lehigh River watershed. Before the creation of LVG, Wildlands had been active in Northampton County, but there was a perception – justified or not – that its main emphasis was Lehigh County. Although Heritage Conservancy and The Nature Conservancy already had projects in the Northampton Corridor – Heritage in the Bushkill area and TNC in the Minsi Lake Corridor – DCNR funding has helped them expand their work in the Lehigh Valley. DCNR has also supported Natural Lands Trust’s efforts in the Highlands and Kittatinny Ridge areas, as well as its work with municipalities throughout the Lehigh Valley.

The increased activity of other conservancies has challenged Wildlands’ preeminence in the region. It has also led to some confusion over where the four organizations should be operating. In respect to land preservation, such lack of coordination can be problematic. For example, if several conservancies are negotiating with the same landowners, they can find themselves in bidding competitions that drive up the costs of acquisition.

While LVG has ramped up land protection efforts in targeted areas and thus created more potential for turf competition, it has also created a forum in which the conservancies can exchange information about their respective activities and avoid “stepping on each other’s toes.” The Ecology Team has been particularly useful in this regard. In addition, D&L staff have provided strategic coordination, helping the conservancies cluster protected parcels to create greenway corridors and trail connections. As Sherry Acevedo explains,

*“What worked was giving them specific tasks, assigning them to particular projects. We matched them up strategically with the resource. We’re known for regional collaboration and we’re the big guy that helps them come together.”*

Partners from the conservation community typically cite such coordination as an important benefit of the initiative. As one LVG participant who focuses on Kittatinny Ridge noted,

*“On the Kittatinny, conservancies have pretty much gotten together and are cooperating to sort out land priorities. That’s no easy task to get them to cooperate. Mapping has been done and parcels have been prioritized in terms of value, size, and ecology. Now we are poised to see a lot happen with that. Conservancies are working on getting more lands under protection.”*

Another who works in the Bushkill area made similar comments,

*“We’re part of the Ecology Team. This is where land trusts can coordinate. We have an opportunity to lay out our projects and communicate. For example, in Bushkill Township, they know who to call. We’re building awareness in the community about where to start and who to contact.”*

Several participants made the point that “there’s plenty of work for all of us,” and that by focusing attention on targeted sub-landscapes LVG has actually helped expand the demand for land protection. Again referring to the Bushkill area, a conservancy spokesperson commented,

*“We can’t handle every project. If we can’t handle it, people can go to other organizations. With more land trusts working there, we are all busier. I think the pie has gotten bigger. There are more projects to work on. More landowners are making inquiries, and municipalities are recognizing that they could use help in formulating plans and someone who knows how funding cycles work.”*

## Land Preservation Challenges in the Lehigh Valley

In the past, most DCNR-supported land protection projects have been in the form of fee simple acquisition for state forests, state parks, or other public landholdings. In the Lehigh Valley, as in other growing regions, rising land prices – along with escalating and sometimes lavish offers made by developers wishing to purchase high-value conservation lands – have rendered fee simple acquisition an extremely expensive option for protecting natural resources at the landscape scale. To stretch its land protection dollars, DCNR has increasingly supported the purchase of conservation easements, which allow landholders to retain ownership but restrict their right to develop the land or conduct other activities that would threaten conservation values.

Even so, land protection has progressed more slowly than expected. As noted, the Ecology Team’s original goal was to protect an average of 1,000 acres per year, but after some four years LVG takes credit for protecting about 1,300 acres in total. One issue is the fact that DCNR can only pay up to half of the appraised value of acquisition; the rest must be raised from other sources. Another

important challenge has been landowner resistance to a DCNR rule (based on statutory restrictions in the Keystone Act) stipulating that the easements acquired through grants from the Department must provide for public access. Owing to fears about crime and safety, many Lehigh Valley landowners object to selling easements if they require that strangers be allowed on the land.

Other restrictions on the preservation of farmland have proven challenging as well. DCNR will not purchase a fee simple title on farmland unless it will be converted to non-agricultural use within two years. Easements on farmland may be acquired, but only if the land is ineligible for preservation under programs administered by the Pennsylvania Department of Agriculture. Easements on farmland must include a conservation management plan to assure that agricultural uses will not adversely affect natural resources. In the Lehigh Valley, such restrictions complicate preservation efforts because the properties identified as conservation priorities often include a patchwork of forests and farmland.

Some members of the conservation community argue that such restrictions are incompatible with DCNR's shift to a more place-based, geographically targeted approach to land preservation. If the Department chooses to focus preservation efforts in a small area, such as the greenway corridor between Jacobsburg EEC and Kittatinny Ridge, it has no choice but to work with a limited number of landowners.

The Department is aware of these issues and has taken some steps to address them. In 2007, Secretary DiBerardinis met with the Ecology Team to discuss the public access requirement. While he did not agree to change the rule, he did realize that the requirement was too vague and should be clarified. The Department has prepared a fact sheet describing the policy in detail so that landowners know what to expect up front.

Another measure to accommodate a more place-based land protection strategy has been the creation of the Conservation Assistance for Preservation (CAP) program. In targeting specific sub-landscapes, DCNR has encouraged conservancies to take a proactive approach to land preservation in those areas. That means identifying high-value resources, contacting and negotiating with landowners, and conducting land appraisals to determine the value of easements. Such activities can cost thousands of dollars in staff time and contracted work, and until recently DCNR would only fund actual acquisition costs. In response to this challenge, D&L worked with four conservancies to develop a proposal for covering pre-purchase land protection costs. DCNR has agreed to the proposal, and conservancies can now receive CAP funding for up-front costs through the block grants. The amounts are capped at \$10,000, and matching contributions are required.

Conservancy representatives say CAP funding has been extremely helpful and has allowed them to invest more essential pre-purchase work in targeted areas. But some recommend broadening the program to cover activities that are currently ineligible, such as education to help land owners understand the conservation value of their land and appraisals for easements that will be donated rather than purchased. DCNR staff note, however, that 50 percent of the costs for land appraisals is eligible if projects are selected for funding. For donated easements, Pennsylvania Land Trust Alliance's Conservation Easement Assistance Program is available to help cover transaction costs.

## Influencing Municipal Land Use Decisions

Understanding that land preservation is just one way to protect natural resources, and that a comprehensive approach to conservation requires dealing with private land that is not under easement, LVG has also sought to influence municipal land use planning and regulation. But in Pennsylvania, where land use regulation is controlled by small, independent local governments, this is no easy task.

Pennsylvania law allows, but does not require, municipalities to adopt comprehensive plans and land use ordinances, including zoning. Since 2000, local governments have been authorized to join

together to prepare multi-municipal plans and to coordinate their land use ordinances to implement those plans. However, strong multi-municipal planning and implementation remains more the exception than the rule. Counties are required to adopt their own comprehensive plans, and the Lehigh Valley is fortunate to have a regional planning commission whose plans cover the bi-county region. However, county and multi-county plans are advisory only and their implementation depends on voluntary compliance by municipalities. The ability of local governments to manage land use on their own, with little regard to the policies of their neighbors or the region as a whole, undermines the sort of regional thinking on which sound land use – and landscape-scale conservation strategies – depend.

Various laws and state agency regulations have important land use implications, but DCNR's leverage with local governments is mainly through grants and persuasion rather than regulations. While LVG initially focused on funding municipalities for greenway implementation, park and trail development, and land acquisition, it is increasingly using grants to educate local government officials, review and revise ordinances, and support better environmental land use decision-making. As noted above, the main vehicle for influencing municipal decision-makers is support for organizations that provide education and technical assistance to local governments, including the Natural Lands Trust (through its Conservation by Design program), Pennsylvania Environmental Council (through its efforts to create Environmental Advisory Committees), and the Lehigh Valley Planning Commission.

The latter is particularly important. LVPC has, with support from DCNR, recently completed four model conservation ordinances – for floodplains, steep slopes, riparian buffers, and woodlands – in an effort to encourage best practices and greater uniformity in municipal land use regulation. Now the challenge is to convince municipalities to adopt the model ordinances. Toward that end, LVPC is conducting workshops for local officials, and DCNR is providing grants to selected municipalities to review and revise their ordinances.

This year, LVG and its partners are focusing special attention on land use ordinances in 12 municipalities in the Kittatinny sub-landscape that are traversed by the Appalachian Trail. In 2008, the Pennsylvania General Assembly passed legislation sponsored by Lehigh Valley legislator Bob Freeman (D-Northampton County) known as the Appalachian Trail Act, which requires municipalities to take actions, including adopting and enforcing zoning ordinances, to protect the “natural, scenic, esthetic and historic values” of the Appalachian Trail. With support from DCNR, LVPC will develop a model Kittatinny Ridge zoning ordinance to provide guidance to municipalities and define a uniform approach to implementing the new legislation.

LVG has promoted Environmental Advisory Committees in the region in the belief that these volunteer advisory bodies will help build capacity and political will for conservation actions by municipalities. Not all members of the region's conservation community are enthusiastic about EACs; like any volunteer group, their effectiveness depends on the knowledge and interests of their members. But LVPC's director, Mike Kaiser, says that some of the region's EACs are more effective than municipal planning commissions, and they can serve as important advocates for revising ordinances and advancing other LVG goals.

In the Lehigh Valley, as in other parts of Pennsylvania, municipalities vary considerably in their commitment to conservation, and the quality of plans and ordinances remains inconsistent. Advancing sound land use planning and regulation requires educating and negotiating with scores of municipalities – a time-consuming and potentially frustrating process, as staff of LVPC attest – and success depends on local political factors that are beyond the control of state agencies or external organizations. LVG has not fundamentally altered the way municipalities plan and zone, but it is providing information, guidance, and resources to help local governments strengthen land use and conservation in the region.

In doing so, it is encouraging a new mindset among local officials – more appreciation for conservation and the advantages it can bring to communities, and a greater willingness to form partnerships with other communities and organizations beyond their borders. As a nonprofit participant from Northampton County noted,

*“Normally all planning was occurring on the municipal or township basis, but the CLI is getting them to look at the broader picture. An example is the Two Rivers Greenway. It involves conservation, trails, recreation, open space, eco-tourism – people are getting together to work on these things. Jacobsburg Park, the Delaware River, Minsi Lake, the Delaware Water Gap - these places can be promoted but still protected.”*

Mike Kaiser, longtime director of the Lehigh Valley Planning Commission and one of the region’s most experienced observers of local government, expressed his view that LVG is having a positive influence on municipal land use decisions. He commented on the innovative, collaborative work that Easton and neighboring municipalities are doing in connection with greenway development along the lower Bushkill corridor and remarked,

*“Occasionally local governments have to be pressured into doing something. This initiative builds a constituency that can influence local governments more effectively than the ways of the past.”*

## Conclusions

Lehigh Valley Greenways was built upon a firm foundation established by prior DCNR investments in the area. Before the CLI, grants for land protection, rivers conservation, greenways, and the heritage area were already spurring activity and enthusiasm for conservation among local governments, nonprofit organizations, and committed citizens. And by supporting the Delaware and Lehigh National Heritage corridor, DCNR had helped create a regional organization that has emerged as a strong local partner and a model for implementing the CLI.

But Lehigh Valley Greenways has intensified DCNR’s involvement in the Lehigh, shifted its emphasis, and taken its support to a new level. It has pioneered new ways for the Department organize its own work and engage with external partners. Among the distinctive features of LVG are:

- Ample attention from high-level DCNR staff and frequent trips to the region by the Secretary and other senior managers, creating personal relationships with key local partners that have fostered mutual understanding and helped break down bureaucratic barriers to communication.
- An unprecedented level of cross-bureau cooperation within DCNR, especially among the bureaus of Recreation and Conservation, Parks, and Forestry.
- DCNR leadership in state agency cooperation, including convening of the LUTED steering committee and coordination of the DEP and DCNR watershed planning programs.
- New approaches to grantmaking, especially the C2P2 block grants administered by D&L, which have fostered more flexibility by allowing the Department to make a larger number of small grants. It has also improved service to small municipalities and organizations by supporting D&L staff to help them navigate DCNR’s grant application and management process.

- Heightened community engagement by personnel from the Parks and Forestry bureaus, who have gone beyond their traditional roles to establish themselves as important sources of advice, technical assistance, and environmental education services for local communities.
- A local lead for LVG (D&L/Sherry Acevedo) who is based in the region, provides guidance and technical assistance to grantees and other partners, and can serve as DCNR’s “eyes and ears” in the field.
- A different approach to planning, with less emphasis on the production of lengthy, highly descriptive plans and more focus on action-oriented plans that move quickly to the implementation stage.
- A focus on forging stronger partnerships with local organizations, including conservancies, watershed organizations, other nonprofits, county and local governments, county conservation districts, and regional planning organizations. LVG has fostered new partnerships not only between DCNR and these organizations, but also among the local partners themselves, creating an on-the-ground network to coordinate activities and provide mutual support.
- Deeper and more meaningful engagement with cities and urban populations; moving beyond DCNR’s traditional focus on parks, forests, and natural resources in rural areas to include support for trail, greenway, and forestry programs in urban communities as well as environmental educational opportunities for urban youth.
- A new approach to working with municipalities, with the aim of influencing how municipalities make decisions regarding land use and conservation – and doing so in ways that are compatible with Pennsylvania’s tradition of autonomous local governments (educational outreach and technical assistance rather than top-down mandates from state government).

Since our research for this case study was conducted at a time when the Commonwealth was facing a severe budget shortfall, and shortly after Secretary DiBerardinis had announced his resignation, many of the people we spoke with were understandably concerned about the future prospects of LVG and its long-term sustainability. In general, participants both inside and outside of LVG were confident that the initiative would continue for the duration of the Rendell Administration, thanks to the strong commitment of senior DCNR management. All acknowledge, however, that the long-term prospects for LVG are uncertain, especially in the context of a sharply reduced state budget.

The question of whether LVG would persist in some form even if DCNR were to withdraw its support for the initiative elicited mixed responses. Some external partners felt the commitment to a regional approach was strong enough to assure that conservation organizations and community leaders from both counties would continue to meet on a regular basis:

*“From what I’ve seen of Sherry’s meetings, the folks involved seem very focused and committed to the effort. I wouldn’t foresee an issue [with continuation of LVG], at least on our side.”*

Others noted the important role played by both the internal and external CLI leads and were afraid that the initiative would fall apart without the coordination provided by Diane Kripas and Sherry Acevedo:

*“I think there would be an effort [to keep LVG going]. But you have to realize, we need a facilitator. If it’s just the partners moving toward some sort of loose regional focus, the organizations will just be shooting for their own specific things. The regional focus is*

*important, so it's not just shotgun blasts all over the map. We need an impartial, unbiased person to lead the effort. We need a facilitator to blend things together."*

One partner thought LVPC might be able to step in and play the role of facilitator:

*"Before the CLI there was some movement going on through the planning commission, kind of an early implementation of Lehigh Valley Greenways. They got the ball rolling, so I would say, yeah, [LVG can survive even if DCNR cuts back support]."*

Still others commented that DCNR's status as a major funder has been a powerful factor in getting people to the table:

*"What DCNR traditionally has is a pot of money, which gets people to come to the table. If the pot dries up, we may have less people showing up. The first rule of nonprofits is to stay in business."*

It bears emphasis, however, that much of what constitutes the CLI approach does not depend on money. To be sure, funding for grants and dedicated CLI personnel will be cut back in a reduced budget climate. But most of the innovations discussed in this report – the focus on partnership building, high-level DCNR attention, working across silos, more community engagement, interagency cooperation, new approaches to planning, new ways of engaging with cities and other local governments – have more to do with how DCNR operates than with the size of its budget. The new ways of working spearheaded by LVG are disseminating throughout the Department and are changing the way Pennsylvanians view DCNR. Despite some continued resistance to these approaches, they are taking hold within the Department as more managers embrace them and recalcitrant staff accustomed to old ways of working are replaced by new employees. Whether or not LVG survives in the long term, its influence on DCNR has already been substantial.

Likewise, LVG is bound to have a lasting impact on the Lehigh Valley. Stronger partnerships within the conservation community have taken on a life of their own and will continue to foster a more coordinated approach to conservation, particularly within each of the sub-landscapes. The increased commitment to conservation and sound land use among local governments is also likely to persist, especially in light of the fact that LVG has cultivated local advocates in the form of a growing network of Environmental Advisory Committees. And, of course, LVG is producing tangible amenities in the form of trails, greenways, tree-lined neighborhoods, and preserved open spaces that will benefit Lehigh Valley communities for many years to come.

## Appendix A: Interview List

Sherry Acevedo	Delaware and Lehigh National Heritage Corridor
Laura Baird	Heritage Conservancy
Kate Brandes	Bushkill Stream Conservancy
Scott Cope	Wildlands Conservancy
Jan Creedon	Lehigh County
Tim Dugan	DCNR Bureau of Forestry
Su Fanok	The Nature Conservancy
Andrew Gilchrist	Natural Lands Trust
Darlene Heller	City of Bethlehem
Mike Jones	Jacobsburg Environmental Center
Mike Kaiser	Lehigh Valley Planning Commission
Rebecca Kennedy	Lehigh County Conservation District
Diane Kripas	DCNR Bureau of Recreation and Conservation
Dan Kunkle	Lehigh Gap Nature Center
Teresa Mackey	Lehigh Valley Planning Commission
Jeff Marshall	Heritage Conservancy
John Mauser	Martins-Jacoby Watershed Association
Allen Sachse	Delaware and Lehigh National Heritage Corridor
Virginia Savage	Lehigh County DCED

## Appendix B: Documents Reviewed

2003-2008 C2P2 Grants

Rounds 1-5 Block Grants

Year One Accomplishments

2006 D&L Annual Report 2006 Partners in Greening the Valley

2006 Work Plan

2007 Work Plan

2007 Accomplishments

2008 Work Plan

2008 Accomplishments

2008-2009 “Priority Projects”

2009 Work Plan