

# Executive Report



## Blackbird-Millington Corridor Conservation Area Plan

This Executive Report was created by The Nature Conservancy, in partnership with the Delaware Department of Natural Resources and Environmental Control Divisions of Fish & Wildlife.



With input from the following partners:



This is by no means a comprehensive list. Numerous other agencies, organizations, and individuals also contributed to this planning effort. Staff from the New Castle County Department of Land Use provided input into the development of portions of this plan.

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## Introduction & Purpose

The Delmarva Peninsula has a rich natural and cultural heritage. Agriculture once dominated the landscape, waterways powered mills and forests provided timber for ship-building, shingling and other industries. Woodlands, fields, wetlands and bays supported abundant fish and wildlife that were hunted, trapped and fished for generations for subsistence and for market. Today this rural character, natural heritage and outdoor traditions are at risk, as farms and forests are converted to housing developments. These unprecedented changes in our landscape in recent decades are taking their toll on the quality of human life and populations of native plants and wildlife. However, it is not too late to protect and preserve our cultural and natural heritage.

In 2004, The Nature Conservancy and the Delaware Department of Natural Resources and Environmental Control (DNREC) Division of Fish and Wildlife entered into a partnership to plan for the future of one of the most important remaining natural landscapes in Delaware — the Blackbird-Millington Corridor. The goal? To develop a plan for the Corridor that, if successfully followed, would preserve and enhance its most important natural resources and habitats. The Nature Conservancy led this effort by bringing the perspectives of the scientific community together with those of local residents, planning agencies and conservation organizations. This innovative approach to conservation planning focuses on maximizing cooperation and support among a diversity of organizations, agencies, and individuals. The results of this planning effort are presented here and will serve as a guide over the next five years for targeting multiple resources to the Corridor — from public and private conservation partners, community members, and other individuals interested in preserving, protecting and improving the remaining natural habitats of the Blackbird-Millington Corridor.



**Scene from Taylor's Bridge Road**  
Route 9. Residential lawn, Blackbird  
Creek tidal marsh, and forest.  
© Judy Hopkins

## Why the Blackbird-Millington Corridor?



**The Barking Tree Frog** is just one of the many amphibians that rely on coastal plain ponds. Sometimes called Delmarva Bays, these ponds are shallow, often oval-shaped wetlands. They have water levels that rise and fall over the course of the year in connection with the water table. Because they are sometimes flooded and sometimes dry, they support a unique combination of plants and amphibians. Fish cannot survive the dry spells, making coastal plain ponds a safer habitat for frog and salamander eggs and young. Nearby forested areas provide habitat for adult frogs and salamanders. © Jim White

A band of open space stretches across the Delmarva Peninsula, from the Cypress Branch and Millington area in Maryland to the Delaware Bay at the mouth of the Blackbird Creek. This area—the Blackbird-Millington Corridor—is recognized by The Nature Conservancy and other conservation organizations as a regional conservation priority based on three factors:

### ① **There is a concentration of important ecological features and natural communities.**

For its relatively small size and location within 150 miles of three major metropolitan areas, the Blackbird-Millington Corridor is a treasure trove of critical habitats. Its natural areas clean the air, purify water, moderate climates, protect from storms and floods and host an extraordinary diversity of plants and animals. Tidal marshes support herons, harriers, eagles and saltwater fishes. The Corridor has the highest concentration of coastal plain ponds in Delaware, providing important breeding grounds for a variety of frogs, salamanders, dragonflies and rare plants like featherfoil. Blackbird Creek and Cypress Branch form a network of streams supporting freshwater fish, mussels and aquatic life, and provide vital habitat for herons, hawks, eagles and other birds. Large patches of hardwood forests serve as critical nesting grounds for migratory songbirds and as cool and secure homes to frogs and salamanders when they are not breeding. These forests also buffer streams, coastal plain ponds, and tidal wetlands from pollution and provide waterside nesting and hunting places for raptors.

### ② **Private landowners have a history of balanced stewardship in the Corridor.**

People throughout history have relied on the Blackbird-Millington Corridor's rich landscape of forests, fields and waterways for food, forest products, transportation, recreation and inspiration. While this area is today home to a wonderful diversity of plants, animals and ecological systems, it is also home to people living in rural agricultural communities. With so much of the land to the north and south of the Corridor quickly being developed, the Corridor has retained much of its natural heritage and unique physical features through careful stewardship by farming families and woodlot owners and far-sighted public investment.

### ③ **There is a solid foundation for conservation.**

The Blackbird-Millington Corridor has a strong history of conservation. Approximately 10,000 acres in the Corridor are owned and managed by

public agencies for a variety of conservation purposes. Another 10,000 acres are owned and managed privately for conservation or agricultural preservation purposes, either by conservation organizations or individual landowners. Conservators of the Corridor include the Delaware Forest Service, the Maryland Department of Natural Resources, Delaware Wild Lands, Inc., the Delaware DNREC Division of Fish & Wildlife and Division of Soil & Water Conservation, Coastal Management Program's Delaware National Estuarine Research Reserve, and about a dozen private farmers with agricultural easements held by the Agricultural Land Preservation Foundations of Delaware and Maryland. Anchoring the Corridor are the Blackbird State Forest (Delaware) and the Millington Wildlife Management Area (Maryland) which together make up the vast majority of the public lands in the Corridor. These two natural areas provide over 8,500 acres of forests, wetlands and fields which are open to the public for hunting and other outdoor recreational activities.

The Blackbird-Millington Corridor is also recognized by the State of Delaware as one of the state's most important areas of "Green Infrastructure" — a network of farms, forests and other natural areas that supports native species, maintains ecological processes, sustains air and water resources and contributes to the health and quality of life for communities and people. In recognition of the importance of "Green Infrastructure" to Delawareans' quality of life, Governor Ruth Ann Minner introduced an initiative known as *Livable Delaware* that identifies farmland, forests and other natural areas and habitats (see sidebar below). It is in the spirit of the Governor's efforts and as a component of Delaware's Wildlife Conservation Strategy that a partnership of The Nature Conservancy and the DNREC Division of Fish and Wildlife was formed for conservation planning in the Blackbird-Millington Corridor.



**The exotic-looking featherfoil** relies entirely on fluctuating water levels of coastal plain ponds to complete its life cycle. Its seeds germinate in early fall, when ponds are dry, its stem develops and elongates through the standing water of flooded ponds in early spring, and its flowers develop hollow stems that allow it to float at the surface until seeds mature and sink to the bottom to start the cycle over again. In Delaware, this remarkable plant only thrives in the coastal plain ponds of the Corridor.

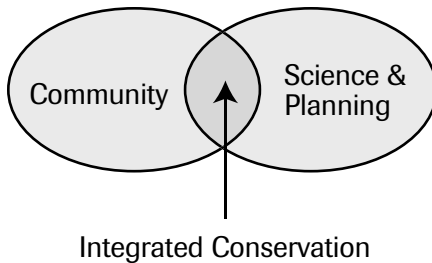
## **Livable Delaware and Green Infrastructure**

Livable Delaware is a positive, proactive strategy that seeks to curb sprawl and direct growth to areas where the state, counties and local governments are most prepared for it in terms of infrastructure investment and thoughtful planning. It builds on the foundation laid by the Strategies for State Policies and Spending, which were adopted in 1999.

Governor Minner's Executive Order #61 provides a framework through which Delaware's Green Infrastructure will receive protection and enhancement through coordinated efforts of state agencies, conservation partners, and public and private landowners. Specifically, it declares that the Secretary of DNREC and the Secretary of the Department of Agriculture shall "Continue and expand ongoing ecoregional conservation assessments by public and private conservation partners that identify the full range of green infrastructure in a given region as well as priorities to conserve."

For more information on Livable Delaware or Executive Order #61, see the Governor's web site: <http://www.state.de.us/governor/orders>

## Integrating Community, Science and Planning



In recognition of the local heritage of good stewardship, a planning methodology was chosen that would integrate the values and goals of the community, scientists and land use planners. This process was designed to do four primary things:

- 1 Find out what the community values and whether it wants to try to preserve those values.**
- 2 Share with the community why scientists value this place as a biologically significant and ecologically intact place and what we can do to maintain and improve those values.**
- 3 Identify the overlap and compromises between community and scientists' values for the Corridor and what each group is willing to do to protect those values.**
- 4 Identify resources, tools and programs that are available, or need to be created, to assist protection efforts.**

More than 150 local residents participated in planning efforts for the Blackbird-Millington Corridor through community workshops, individual landowner meetings, field trips and focus groups from February to November, 2004. Each venue provided opportunities for community members to learn more about the ecology that makes the Corridor an important place, and provided everyone with an opportunity to express the values and approaches they support for Corridor conservation.

Three clear messages emerged during the planning process with the community:

- 1) Residents want to preserve the rural character of the Corridor. Their top five values are: open space and privacy, clean air and water, access to nature at home and nearby, local support for agriculture and the community connections provided by local schools, churches, and rural neighbors.
- 2) Landowners — especially farmers — do not want more government regulation.
- 3) Residents recognize the need for balancing conservation efforts with private property rights, and they support conservation efforts that are voluntary, incentive-based and that fairly compensate landowners.

Through team meetings, workshops, and individual sessions with scientists and practitioners, over 60 specialists representing 30 different agencies and organizations participated in planning efforts for the

Corridor. A key aspect of the planning process was the use of “teams” — groups formed from agencies, organizations and individuals, each with specific expertise and purpose — focused on various aspects of Corridor conservation.

#### ***Project Advisory Team***

Provided input and guidance on the conservation planning process. Included individuals specifically selected for their broad-based scientific and cultural knowledge of the Corridor.

#### ***Core Science Team***

Defined and assessed the condition of natural habitat in the Corridor. Members were selected for their expertise on specific natural communities of plants and animals in the Corridor.

#### ***Community Outreach Team and Focus Group***

Comprised of local residents and landowners who provided guidance

on outreach to the community and a community perspective on strategies.

#### ***Technical Teams***

Included additional scientists, conservationists, planners and policy-makers. Brought expertise and interdisciplinary peer review to the project.

With these teams and the best maps and data available, participants collaborated to evaluate and prioritize natural habitat types and the features critical to keeping those habitats healthy.

Together we learned:

- To maintain and enhance habitat for a diversity of forest plants and animals, especially interior nesting birds, we should **enhance and connect patches of mature forest** in the western portion of the Corridor. Here there is already a strong forested

base and an opportunity to manage those forests toward an even more mature condition.

- To maintain and enhance habitat for the unusual plants, frogs and salamanders, we should **protect and restore mature forests near coastal plain ponds** to keep these unusual wetlands connected and functioning naturally. We should study them to learn more about their hydrology and how they are affected by management practices.
- To maintain and enhance habitat for the fish, mussels, eagles, herons and osprey we should protect and restore forest and natural vegetation in the areas along Blackbird Creek, Cypress Branch and tidal wetlands.



**Canoeing** down Blackbird Creek as part of the community planning process, October 2004. © Judy Hopkins

## Results: Priority Conservation Areas

Integrating community and scientific values led us to a clear conclusion:

### **Forests are the key to healthy communities of plants, animals, and people.**

Forests provide privacy, recreation and hunting opportunities for residents and contribute to the rural agricultural economy. Large mature forests and forests along streams, coastal plain ponds and wetlands provide the most critical habitat for plants and animals. And forests play an important role for people and wildlife by removing pollutants from the air and water on which we all depend. Maximizing the most critical community and scientific values in the Corridor hinges on maintaining, enhancing and protecting forests and the rural lands that contribute to their sustainability.

To guide and focus conservation efforts in the Corridor, three “conservation priority areas” were designated. (Please refer to the Conservation Priority Areas Map on the back cover.)



### **Forests**

21,700 acres in Forest Priority Area

Today: 13,500 acres of forest cover (some in hedgerows, etc.) and 7,000 acres protected in Forest Priority Area

Goal: 15,000 acres mature forest, 10,000 protected

Need: Estimated 2,000 - 5,000 acres reforested and 8,000 - 10,000 acres more protected

Efforts in the **Forest Conservation Priority Area** (in green on map) will focus on protecting and linking mature forests. Scientific research shows that we need to create an interconnected area of at least 15,000 acres that is mature and healthy enough to support the species dependent on forest habitat — such as migrating songbirds — if we want these species to continue to exist in the Corridor. This will require protecting and managing the best of the existing forest in a sustainable way (which can include selective timber harvests.) It will also require filling in the most crucial gaps in high quality forest with new planting and/or improvements to existing stands.





© Maria Trabka

## Streamside and Wetland Edges

7,000 acres in the Streamside Priority Area, plus additional streamside acres in the Forest Priority Area

Today: 3,500 acres forested (50%) and 2,200 acres protected in Streamside Priority Area

Goal: To enhance and protect woodlands along 80% of streams, wetlands, and coastal plain ponds

Need: About 1,200 more acres forested (can be in Streamside or Forest Priority Areas)

Efforts in the **Streamside Conservation Priority Area** (in blue on map), will focus on protecting and enhancing woodlands along streams, wetlands and coastal plain ponds. To keep these streams healthy for plants, animals and people, we need to protect the woodlands that are there and fill in the most crucial gaps with new planting. The majority of streamside areas in the Corridor are already forested but adding some forest along streams, and particularly wetlands, is needed to achieve goals for preserving streamside and wetland habitats.



© Judy Hopkins

## Working Lands

18,500 acres in Working Lands Priority Area

Today: 5,000 acres forested; 6,300 acres protected

Goal/Need: Protect as much as possible in working farms and forests

Efforts in the **Working Lands Conservation Priority Area** (in yellow on map) will focus on using agricultural easements to maintain land in working farms, forests and grasslands and protect these lands and scenic areas from development. This will require creating new/greater income and profitability opportunities for smaller farmers in the Corridor.

Although each of these priority conservation areas has a different focus, they share many of the same natural resources, including streams, forest and agricultural lands. Conservation easements — voluntary agreements with private landowners — will play an important role in all three conservation priority areas. These areas will help guide actions and funding to the places on the ground where they are most needed for each type of natural resource.

In addition to specific objectives for each conservation priority area, the planning process revealed a set of Corridor-wide objectives to maintain our vital communities of plants, animals and people:

- Keep non-native invasive species, like *Phragmites*, purple loosestrife and autumn olive under control,
- and keep new invaders out of Corridor forests and wetlands.
- Keep poorly planned roads, residential developments and excessive paving out of the Corridor.
- Minimize non-point source pollution in Blackbird Creek and Cypress Branch by using and promoting better management practices.
- Enhance the sense of community, history and appreciation of the Corridor's natural resources, and highlight the connection between resources and the community.
- Increase understanding of forests, streams, coastal plain ponds, tidal wetlands and the plants, animals and people they support

# Strategic Actions: How Can We Preserve The Corridor's Heritage?

Scientists, residents, and policy-makers agree that keeping the Corridor's forests and working lands vital will require action on many different levels, involving numerous people, organizations and agencies. The biggest sources of stress to forests and farms in the Corridor are clearing for residential and commercial development; road construction and upgrades; unsustainable land management by homeowners, foresters and farmers; and the spread of invasive non-native plant species. With rapid growth

occurring in the state and region, easing these stresses will be a challenge. Planning process participants proposed five ways to meet that challenge:

**Protecting** the most critical of our forests, farms, wetlands and waterways from future harm through voluntary preservation agreements with private landowners or through ownership by a conservation organization or government agency.

**Restoring and Managing** Corridor lands in a way that will contribute to the stewardship of healthy forests, farms, wetlands and waterways.

**Promoting Alternatives** to the practices that harm Corridor forests, farms and water resources and promoting methods to help insure the profitability of farming and forestry.

**Communicating** with each other about the importance of Corridor forests, farms and water resources and how we can work together to protect them.

**Learning** more about the important natural features of the Corridor.



**Coastal Plain Pond** in Blackbird State Forest. © Maria Trabka

## Protect

### 1. Create a new incentive program for landowners to preserve forests.

The Agricultural Land Preservation Program in Delaware has been an important catalyst in the preservation of valuable agricultural land in the Corridor. Building on the success of this program, an expansion of the Agricultural Land Preservation Program is proposed to provide for forest preservation districts and purchase of development rights for forestland in Delaware. The Delaware Forest Service is working to introduce legislation in 2005 to create this program and provide tax incentives for landowners. Conservation partners including The Nature Conservancy, other agencies

and organizations and concerned citizens will play an important role by voicing support for the funding required by this legislation. Once passed, the Delaware Forest Service, The Nature Conservancy and others can conduct outreach to help promote the availability of this program to landowners in the Corridor and work to develop a long-term source of funding for buying development rights.

## **2. Coordinate various land-protecting entities in the Corridor.**

There are about a dozen different organizations or agencies with the capacity to protect land in the Corridor through fee ownership or conservation agreements with landowners. The community plan and conservation priorities will be shared with each of them and each will be asked to identify where they can contribute to protection so that any gaps can be identified and addressed. The Nature Conservancy will also work with

partners to share this plan with counties and the Delaware Office of State Planning Coordination so that they can work to establish the Corridor as a priority for protection in current or future plans and protective ordinances. Funding will be sought to create a staff position to assist agencies with additional analysis and coordination.

## **3. Provide greater land protection incentives for landowners who own both forestland and agricultural land.**

Parcels in the Corridor that include both priority forestland and priority farmland would be prime candidates for dual protection — for example, an Agricultural Land Preservation Foundation agreement to protect agricultural land and a separate conservation agreement to protect forests. The Nature Conservancy can work with DNREC and the Delaware Department of

Agriculture to identify areas where overlaid or combined conservation agreements would be beneficial and feasible and work with those landowners to provide incentives, such as additional private funding. The Department of Agriculture can continue to investigate ways to provide greater forest protection through agricultural easements for Corridor priority lands and include additional information about forest protection options in program literature.

## **4. Change tax laws to enhance incentives available to landowners who donate conservation easements.**

Delaware has a conservation tax credit for the value of a conservation donation of land or easement, but some landowners don't have enough taxable income to fully use this credit. The Nature Conservancy and others can work to change the law to make the tax credit saleable so that

### **The Farmland Assessment Act and the Commercial Forest Plantation Act**

**The Farmland Assessment Act** reduces the property tax burden of owners of land devoted to agriculture, horticulture or forestry.

**Benefits:** Reduces county property taxes by basing them on the agricultural, horticultural or forestry use value, instead of the most profitable use value.

**Requirements:** Eligible properties must be over 10 acres and must demonstrate revenue of \$2,000 over 2 years; does not extend to farmers in retirement

**The Commercial Forest Plantation Act** eliminates, for 30 years, the property tax burden of owners of commercial forest plantations with an approved forest management plan.

**Benefits:** Eliminates county property taxes for 30 years for those who qualify.

**Requirements:** Eligible properties must be at least 10 acres and must have enough quantity/quality of forest growth to assure that a stand of merchantable timber will develop. (No orchards, or ornamental forests.)

*Source: DNREC Green Infrastructure/Biodiversity Supporting Programs 2003*

landowners who cannot use the credit themselves could sell it to someone who could. Changing the law will require the vocal support of Delaware citizens to pass the necessary legislation. Making tax credits saleable could also be beneficial in Maryland and could be further explored.

### **5. Improve opportunities for property tax relief as incentives for landowners to preserve forestland.**

The Department of Agriculture, The Nature Conservancy and other partners can provide information to Delaware forest landowners about the tax relief offered by the Farmland Assessment Act and the Commercial Forest Plantation Act. To accommodate those landowners who want to maintain their forests but don't want to extract income from their forests or don't meet the minimum acreage requirement for these Acts, the creation of a new mechanism for tax relief could be pursued. If creating a new mechanism is not feasible, the potential benefits of modifying one or both of the existing Acts could be explored by The Nature Conservancy or other partners. Kent County, Maryland and the Eastern Shore Land Conservancy can revisit opportunities for expanding the use of tax credits for agricultural preservation districts and easements in Maryland. The Nature Conservancy can also work with New Castle County to explore opportunities for providing property tax reduction for lands with conservation easements based on their reduced market values.

### **6. Increase the federal funds available for land protection in the Corridor.**

The Nature Conservancy, the Delaware Nature Society and other partners and residents can advocate for increased funding for federal programs that could fund protection efforts in the Corridor. Programs such as: USDA Forest Legacy, USDA Farm Bill, the Delmarva Conservation Corridor and National Oceanic and Atmospheric Administration (NOAA) programs for funding forest and estuarine land acquisition. Partners and residents can urge the administration to adopt and implement the recommendations of the U.S. Ocean Policy Commission for coastal watershed protections. The Delaware Forest Service, the Maryland Department of Natural Resources, The Nature Conservancy and Corridor landowners can work together to maximize Forest Legacy benefits to the Corridor by cultivating a competitive project to submit for Forest Legacy funding and proposing an extension of the Blackbird Forest Legacy area into Maryland.

### **7. Increase the state funds available for land protection in the Corridor.**

The State of Delaware provides funding for the permanent protection of farms and forests through the Open Space Council, the Agricultural Land Preservation Foundation, the Department of Transportation and the Green Infrastructure Program. The Nature Conservancy, partners and residents can advocate for increased funding for these programs and designation of the

Corridor as a funding priority for each program. The State of Maryland provides funding for the permanent protection of farms and forests through Rural Legacy and other programs, although funds have been cut dramatically in recent years. The Eastern Shore Land Conservancy and other Maryland non-governmental organizations can explore opportunities for restoring funding to these programs, and establishing the Corridor as an area eligible for use of these funds. State funds can be leveraged by securing matching funds from federal, county and private sources. The Nature Conservancy and other conservation organizations can also take advantage of any opportunities to support referendum efforts to raise conservation dollars on the county and/or state level.

### **8. Increase the county funds available for land protection in the Corridor.**

The counties in both states can explore new or expanded mechanisms for funding contributions to forestland and farmland protection, like general realty transfer taxes agricultural and forest land transfer taxes, county bonds, conversion taxes, or others. New Castle County can replenish its allocation for farmland and open space acquisition and focus the use of funds on Corridor priority areas. Kent County, Maryland can explore opportunities for increasing the priority of Corridor farms and forests for agricultural land preservation program funding.



### **A Note on “Reforestation”**

In the technical realm of Forestry, the term “reforestation” refers to replanting a harvested woodland, while the term “afforestation” refers to planting trees on cropland. However, for practical purposes, “reforestation” is used throughout this report to include both types of planting. © Maria Trabka

## **Restore and Manage**

### **1. Focus new DNREC Division of Fish & Wildlife Landowner Incentives Program (LIP) for wildlife habitat on Corridor priority areas.**

Conservation goals include building forest interior through reforestation, improving forest stands through management techniques and enhancing wetland edges (coastal plain pond, streamside, and tidal). A new Landowner Incentive Program can help Corridor landowners with these activities. Through this program, the DNREC Division of Fish & Wildlife can conduct outreach to small farms in the Corridor that may not be served by farm service programs.

### **2. Consolidate landowner outreach resources.**

There are many existing sources of information and technical and financial assistance for landowners interested in habitat improvement. Agencies and organizations providing resources include: DNREC Division of Fish & Wildlife, Delaware Department of Agriculture Forest Service, Natural Resources Conservation Service and county Soil and Water Conservation Districts, US Fish & Wildlife Service and Ducks Unlimited. All have programs that provide assistance to landowners in the form of cost-sharing,

but some do not have the capacity to reach out to every landowner. The Nature Conservancy can work with partners to host a conservation options workshop and develop a fact sheet on technical and financial assistance available for reforestation for landowners in the Corridor. Additionally, the DNREC Division of Fish & Wildlife and the Natural Resources Conservation Service can target landowner incentive programs and increase outreach efforts to Corridor landowners to explain a range of conservation options.

### **3. Provide technical and cost-sharing assistance on private properties to restore edges along streams, tidal wetlands and coastal plain ponds.**

Because restoration can be difficult and costly, even with the financial assistance provided by existing programs, The Nature Conservancy and other partners are exploring ways to help landowners cover restoration and long-term maintenance costs in the most critical areas.

#### **4. Launch an aggressive program for Corridor-wide invasive species control.**

The spread of invasive plant species smothers diverse native habitats and makes restoration efforts difficult. DNREC could take a Corridor-wide approach by distributing a list of invasive species to agencies and landowners and creating an invasives control team. The main objectives would be to keep public lands invasive-free and to provide information, training, and assistance to private landowners who want to control invasive species.

#### **5. Focus existing landowner restoration incentives on Corridor priorities.**

Existing landowner incentive programs like the Natural Resources Conservation Service's Wildlife Habitat Incentives Program and Wetland Reserve Program, and the Conservation Reserve Program of the Farm Service Agencies can provide financial assistance to landowners for restoration, but could be tweaked in various ways to better

meet Corridor restoration needs. In particular, expanding their use for covering more long-term management and maintenance costs and expanding the buffer sizes they can cover for coastal plain ponds would be a significant improvement. Focusing outreach efforts on Corridor priorities, developing a list of qualified contractors for stream and wetland restoration and management and evaluating program effectiveness are also important related strategies.

#### **6. Restore priority lands that are under state ownership and management whenever feasible.**

State-owned lands provide some of the best opportunities for restoring forest in the Corridor. However, state agencies rely on agricultural leases to support their work and need some agricultural lands to meet their goals and the needs of users. The Delaware Forest Service has already reforested nearly 100 acres in the Corridor over the last seven years. Both the Delaware Forest Service and Maryland Department of Natural Resources

(Millington Wildlife Management Area) can identify priorities and explore opportunities to reconnect forest lands by reforesting additional agricultural fields where feasible.

#### **7. Apply Delaware Forest Service and the Maryland Department of Natural Resources' programs to achieve forest management and protection objectives.**

The Delaware Forest Service works with landowners to promote healthy and diverse forests in the Corridor. Management staff of both the Delaware Forest Service and the Maryland Department of Natural Resources can continue and increase these efforts by managing for mature forest habitat in appropriate areas on agency lands; by promoting mature forest management principles to surrounding landowners via management plans, educational materials, tours of demonstration areas, and personal contact; and by prioritizing cost-sharing for landowners who manage for mature forests and biodiversity.

**The Farm Service Agency's Conservation Reserve Program** encourages farmers to convert highly erodible or sensitive land to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filterstrips or streamside buffers. The program provides technical and financial assistance in the form of an initial cost share and annual rental payment for the term of the multi-year contract

**Natural Resources Conservation Services Wetland Reserve Program** is a voluntary program offering landowners technical and financial assistance in the form of cost-sharing for restoring and/or enhancing wetlands (including coastal

plain ponds) and/or in the form of a purchased conservation easement for protecting wetlands on their property.

**Natural Resources Conservation Services Wildlife Habitat Incentives Program** provides both technical assistance and cost-sharing assistance to landowners (usually over 5-10 years) for establishing and improving fish and wildlife habitat

More information on these and other programs is available from NRCS at: <http://www.nrcs.usda.gov/programs>

**8. Maintain and strengthen the State of Delaware’s *Phragmites* control program.**

This program, available to landowners at minimal cost, was designed to combat the invasion of the non-native *Phragmites* reed that overtakes native habitats in wetland areas. The DNREC Division of Fish and Wildlife and The Nature Conservancy can identify and conduct outreach to key tidal wetland landowners in the Corridor about this program and its benefits, and provide additional cost-sharing where necessary. The Nature

Conservancy, other conservation organizations and residents can lobby legislators to keep this program funded.

**9. Focus available public land restoration funding and efforts on Corridor priorities.**

The Nature Conservancy can work with partners to share this community conservation plan with the numerous agencies and organizations that offer funding or other assistance for restoration efforts, so that they might focus resources on restoration in the Corridor.

**10. Secure new funds for restoration work, especially along stream corridors.**

Restoration is costly. The Nature Conservancy can work with the New Castle County Conservation District to submit a 319 proposal to the Environmental Protection Agency to obtain funds for streamside corridor restoration in the Corridor. The Nature Conservancy and others partners will continue to explore this and other future opportunities for funding.



**The hooded warbler**, one of Delaware’s endangered bird species, can be found in the hardwood forests and swamp edges of the Blackbird-Millington Corridor.

© Jean Iron

# Promote Alternatives

## 1. Guide development away from Corridor priorities.

Counties can work together with the Office of State Planning Coordination to evaluate all of the development current zoning would allow (“build-out”) and identify changes that could be made to achieve better results for Corridor forests, farms, and waterways. Encouraging the Transfer of Development Rights (TDR) holds some promise to help guide development away from precious Corridor natural resources and toward areas with road, sewer and community service infrastructure. However there are some challenges preventing TDR from being used effectively today—challenges that can only be solved with the support of Corridor residents.

### **Transfer of Development Rights (TDR)**

is a market-based technique for guiding development away from places where a community would like to see less development (sending areas) and toward places where more development is desirable (receiving areas). Three key features for TDR program success are: 1) designating sending areas where less development is desired, 2) designating receiving areas where more development is desired, and 3) establishing incentives that are attractive to developers. Existing TDR programs in Delaware could be improved by designating receiving areas where development is desired and by establishing greater incentives for developers that use TDR.

## 2. Preserve the rural character of the Corridor through better planning of roads, sewers and other public utilities.

State agencies like the Department of Transportation and the Office of State Planning Coordination could designate the Corridor as a place where new or larger roads and sewer systems are limited; natural and scenic resources are maintained; and safe and scenic transportation alternatives are emphasized. Such action is in accordance with the Strategies for State Policies and Spending, and would contribute to efficient investment of taxpayer dollars while slowing sprawl, preserving farmland and open space, and preserving quality of life for Delawareans, especially residents in the Corridor.

## 3. Provide technical information and assistance to farmers to help them keep their farms running.

Farmers could benefit from information on higher value crops, forest management, business planning, alternative and renewable energy crops, and/or retail opportunities and niche markets. The Delaware Department of Agriculture (DDA) and Chesapeake Fields, Inc. can play an important role in this effort by researching niche markets for smaller farms, creating and connecting farmers to niche markets and direct marketing opportunities, and getting economic development agencies more involved in meeting the needs of the changing agricultural industry. The Delaware Tourism Office can help develop and publicize incentives and technical assistance to attract and keep farmers in the Corridor.



#### **4. Minimize impervious surfaces.**

Encourage alternatives to paving and structures such as different materials and better designs. County governments, the Department of Transportation, and the development community can build communities with less pavement by encouraging and using design standards that incorporate natural recharge and fewer paved areas. DNREC and the Delaware Office of State Planning Coordination can work to educate everyone about the importance of natural surfaces for water recharge and erosion control and ways to maximize natural surfaces. Residents also can play a crucial role by minimizing their own use of impervious surfaces and learning more about ways to incorporate pervious surfaces and natural filter strips on their properties.

#### **5. Include agriculture and resource-based industries in economic development plans for the Corridor.**

Counties can work with the Departments of Agriculture and the Delaware Economic Development Office to develop creative ways to address agriculture and resource-based industries in their economic development plans and goals, and include them in their next comprehensive plans.



## **Communicate**

### **1. Provide environmental education opportunities.**

Many local agencies and organizations have well-established environmental programs. The resources of the Blackbird State Forest, the DNREC Division of Fish & Wildlife, Delaware National Estuarine Research Reserve, the Millington Wildlife Management Area and the Delaware Nature Society could be enhanced to include Corridor habitat education in their curriculum and programs. Focusing programs on children and adult decision-makers will build awareness of the wildlife ecosystems provided by the Corridor today, and the importance of its preservation into the future. Each facility can include education about Corridor habitat in its materials and efforts, while also working together to develop a joint program, such as a self-guided “watchable wildlife” tour of the Corridor that includes stops at each facility and is disseminated through these facilities, the DNREC Division of Fish & Wildlife and the Delaware Tourism Office.

### **2. Create a forum to coordinate with all the various stakeholders as we work together to implement the community conservation plan.**

Analyzing where resources can be most strategically applied and providing a forum for information exchange and continued communication about Corridor issues will be crucial for the success of preservation efforts. DNREC and The Nature Conservancy are working to develop this forum. By exploring ways to approach land use planning on a more regional level in Delaware, the Office of State Planning Coordination could contribute greatly to this effort in the long-term.

### **3. Use educational programs, outreach, and cost-sharing grants to increase awareness of Corridor values and to reduce pollution.**

Focus these efforts on residential areas, including lawns and septic systems. Improperly managed lawns and septic systems are growing contributors to water pollution and the degradation of streams, wetlands and coastal plain ponds. Delaware DNREC’s Coastal Management Program can offer educational programs and resources to landowners with



Gary Pettit (Delaware Department of Agriculture) talks with local residents at November 16th, 2004 workshop at Blackbird Community Center.  
© Judy Hopkins

larger residential lots, but who may not be reached by the agricultural programs that serve larger farms. The Coastal Management Program has the programs and materials to do this, but needs the help of local organizations and residents to identify groups of landowners who could benefit from these resources.

**4. Launch a training program for people who want to become more successful advocates for Corridor issues.**

The Delaware Nature Society and DNREC’s Coastal Management Program already have programs and materials for training regular citizens to be as effective as professional advocates for the issues they care about. Using these programs and materials to produce a network of Corridor advocates will require getting the resources to seek participants from the Corridor and to tailor the program to Corridor-specific issues and needs.

**5. Expand Delaware Nature Society’s “Backyard Habitat” program to Corridor residents.**

The Delaware Nature Society’s “Backyard Habitat” program provides landowners with information and technical assistance to help them create important wildlife habitat on their own properties. Additional outreach and funding could make this program more available to landowners in the Corridor, especially if the curriculum was focused specifically on Corridor priority habitats, like forests, streamside areas, tidal wetlands and coastal plain ponds.

**6. Sponsor community events and programs to build public awareness of Corridor priorities.**

With support and participation from the local community, DNREC could help establish

an annual or biannual event to celebrate the Corridor’s rural and nature heritage - like Port Penn’s Marsh Weekend. The Delaware Nature Society could work with the Delaware National Estuarine Research Reserve to hold a “Streamwatch” training program in the Corridor to get residents involved in monitoring the quality of local streams. Similarly, the DNREC Division of Fish & Wildlife can conduct outreach and volunteer recruitment efforts in the Corridor for its Adopt-A-Wetland Program to get Corridor residents involved in the protection and restoration of wetlands in the Corridor. Another fun and educational way for residents to get involved in conservation efforts is by participating in a frog count with the DNREC Division of Fish & Wildlife or on their own using a web-based frog watch program. ([www.nwf.org/frogwatchUSA](http://www.nwf.org/frogwatchUSA))

**7. Assist landowners with estate and retirement planning.**

Conservation efforts can provide benefits to landowners planning their retirement or the future of their estates. However estate planning can be complicated and usually requires a professional advisor. To help landowners incorporate conservation into their estate or retirement planning, The Nature Conservancy can work with partners to offer seminars for landowners on conservation options. The Nature Conservancy will also strive to find a mechanism for providing personalized consultation to landowners with an estate planning expert.

## Learn

### 1. Compile data on the age and species in our forests.

The age of forests and the species of trees in our forests tell us a lot about forest health. The existing information for forest age and species includes only limited areas and it is stored in different formats. The Delaware Forest Service and DNREC can work together to compile this information in a format that will allow scientists to evaluate Corridor forests as a whole and identify gaps where more information is needed.

### 2. Improve knowledge about plants and animals in the Corridor.

Continued surveying of the plant and animal communities and species in the Corridor is the best way for us to keep learning about how best to protect their habitats, and to measure the results of conservation efforts. Identifying gaps in survey information and where/when surveying may need to be repeated to maintain accurate information are important parts of this strategy.

### 3. Improve understanding about coastal plain pond habitats and how they function.

The health of coastal plain pond habitats is linked to a variety of factors, some of which scientists know a lot about (like the importance of forests

nearby) and other aspects which are relatively unknown. Experts know that pond hydrology and pH affect plant and amphibian life, but need to learn more about exactly how and why, and to build this knowledge into a set of best management practices for coastal plain ponds. Developing a research and demonstration site for coastal plain pond management would improve scientific understanding. Better mapping of coastal plain ponds is also needed in order to identify the most important clusters for protection, especially in Maryland.

### 4. Enhance research on the aquatic life and flows in Corridor streams.

Comprehensive stream surveys of Blackbird Creek and Cypress Branch identify what and how



**Core Science Team members** (left to right) Jim Dobson (Delaware Forest Service), Rick McCorkle (US Fish & Wildlife Service), Bill McAvoy (DNREC Natural Heritage Program) and Nature Conservancy staff Jen Adkins and Andy Manus examine forests in the Corridor to help define key ecological attributes, September 2004. © Maria Trabka.

much aquatic life these streams are supporting, and how/where they are being impacted by human and natural conditions. An assessment of Cypress Branch is underway by the Chester River Association and the Maryland Department of Natural Resources. The DNREC's Division of Water Resources and Division of Fish & Wildlife could work in partnership to do the same for Blackbird Creek and use the combined results to develop any additional conservation actions needed to keep these streams healthy.

**5. Use the results of a bird radar study to improve Corridor habitat for bird stop-over.**

A research project is underway using radar to examine the stopping patterns of migrating

birds in Delaware, Maryland and New Jersey. This study could provide us with important new information about how and why migrating birds utilize Corridor resources, which might give us new ideas for how to improve habitat for migrating birds. Verification of the radar data on the ground is needed to understand its accuracy and limitations.

**6. Improve information on healthy native marsh vegetation in the tidal wetlands of the Corridor.**

Efforts are underway by DNREC Coastal Management Programs to map those tidal wetlands where non-native *Phragmites* dominates. The DNREC Division of Fish & Wildlife is in the process of mapping high marsh vegetation. The combination of these two

sources of information can help focus conservation efforts by determining where there is healthy tidal wetland habitat and where there is not

**7. Analyze which financial incentives and conservation options will work best for Corridor landowners.**

There are a variety of tools and incentives for land conservation that could potentially be used in the Corridor, but some tools work better for certain landowners than for others. It will be crucial to find out (via surveying and cost-benefit analysis) which tools are going to be the most effective for Corridor landowners before investing resources to make them available.

## Roles for Everyone

This plan represents the best thinking of a wide range of partners — not just one organization, agency or individual. And implementation of these ideas will require the participation and support of many different agencies, organizations and individuals. Preserving the heritage of the Corridor requires the cooperation of everyone who cares about the future of this area.



Agricultural fields, vegetated buffers and woodlands on a farm in the Corridor. © Maria Trabka

Conservation strategies for the Blackbird-Millington Corridor include roles for state agencies and policy-makers, conservation organizations, local planners, landowners and residents. The commitments and responsibilities of some are spelled outright here. However, many more are not, including the multitude of supporting roles that will be played by groups and individuals. In most cases, those most directly involved in implementing these strategies also had a hand in developing them and recognize their specific roles.

**Government Agencies** play a lead role in many of the strategies by administering the programs involved. Because this effort sought to conserve resources and avoid duplication, strategies that propose revising or refocusing existing programs were pursued whenever possible, as an alternative to developing entirely new and potentially duplicative programs. The primary role of agencies is to modify and focus their programs on Corridor needs and priorities, in some cases adding new aspects or activities or revising certain activities to work better

for the Corridor. Some of these activities will undoubtedly require building new capacity. It is expected that agencies will support and work toward Corridor initiatives and that the representatives who participated in Corridor planning will instigate the proposed changes or additions to their programs. However it is not assumed they can insure success— especially where additional capacity or funds are required.

The same applies to **nonprofit conservation organizations** like The Nature Conservancy, which also play lead roles in many strategies. The Conservancy and other conservation organizations already have programs, materials or expertise that can be used to benefit the Corridor without starting from scratch. Conservation organizations are uniquely positioned to work with the public and they can mobilize their membership and volunteers. In cases where additional capacity is required to fulfill strategies, organizations are encouraged to use this plan as a tool for

helping to secure funds. It is assumed that all conservation organizations involved in this effort will help advocate for the legislation, funding, and agency support needed or specified in strategies, and use the power of their memberships and connections.

The role of **local planners** is similar to the role of government agencies. With three different local planning regimes, each with different ordinances and practices, it was difficult to develop meaningful conservation strategies through local planning. Planners will play an important role in finding ways to support priorities through existing zoning and planning mechanisms, while also looking for opportunities to implement new or improved mechanisms to protect Corridor priorities. It is expected that planners will support and work toward Corridor initiatives and

instigate the proposed changes or additions to their ordinances, practices and plans when opportunities arise. However it is not assumed that they alone can insure success — especially when it comes to increasing financial contributions to land protection.

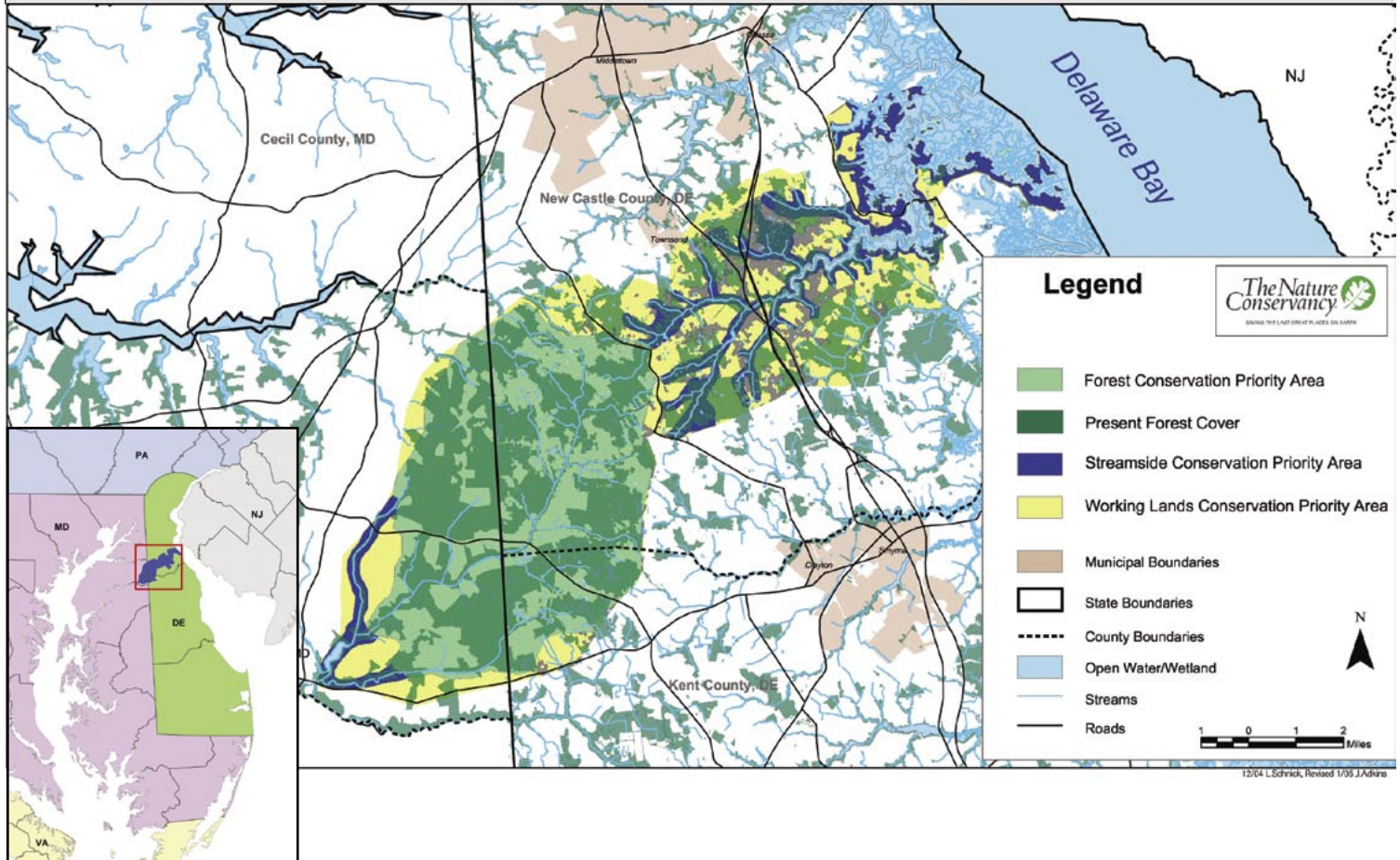
**Landowners** have a tremendous opportunity to preserve the heritage of the Corridor by practicing conservation on their own properties in a myriad of ways. The most important role for landowners is to explore the conservation options available to them. They can take advantage of the information and technical assistance available and consider implementing restoration or protection on their own lands. Landowners also have the critical role of advocating for the funding, policies and programs that will support conservation in the Corridor, especially those pertaining directly to land use

and management. And they have the critical role of promoting conservation to their peers — other landowners — who are more likely to listen to neighbors than to outside experts.

**Residents** can participate in the programs and events that strengthen conservation in the Corridor. There are many opportunities to benefit wildlife habitat such as advocate training, stream watch training, Adopt-A-Wetland, amphibian counts and community events. Voices from the community are just as important to local officials as hearing from landowners or organizations on legislation, programs or funding for conservation. Neighbor-to-neighbor dialogue is also crucial. One of the best conservation services residents can provide is to spread the word about the importance of Corridor habitats and their preservation.



# Blackbird Millington Conservation Corridor Plan CONSERVATION PRIORITY AREAS



## Forest Conservation Priority Area

21,700 acres total, 7,000 currently protected.

- **Primary Goal:** To protect and link 15,000 acres of mature healthy forests.
- **Secondary Goals:** Focus on streamside areas, wetland edges and expand existing forest cover. Use sustainable management for compatible farming and timber harvesting.
- **Action Needed:** Reforestation of an estimated 2,000-5,000 acres and protection of an estimated 8,000-10,000 acres.

## Streamside Conservation Priority Area

7,000 acres total, 2,200 currently protected.

- **Primary Goal:** To enhance and protect woodlands along 80% of streams, wetlands, and coastal plain ponds.
- **Secondary Goal:** Focus on areas around tidal wetlands, edges of high priority coastal plain pond complexes, and on filling in gaps where much of the streamside is already forested.
- **Action Needed:** Reforestation of an estimated 600 acres along tidal wetlands and an estimated 600 acres along streams and coastal plain ponds.\* Protection of as much forested Streamside Conservation Priority Area as possible.

*\*can be in Streamside Conservation Priority Area or can be in Forest Conservation Priority Area.*

## Working Lands Conservation Priority Area

18,500 acres total, 6,300 acres protected.

- **Primary Goal:** To maintain and protect working farms and forests.
- **Secondary Goal:** To protect and enhance areas of special scenic or cultural value and encourage sustainable management of woodlands and water resources.
- **Action Needed:** Use agricultural/forestry conservation agreements to protect working lands; Create greater/new income opportunities for small farms.