

Threats Facing 10 of Pennsylvania's Most Special Places

Our Natural Heritage At Risk



1. Pine Creek Gorge (The "Pennsylvania Grand Canyon"), which could be impacted by oil and gas drilling on state lands;
2. Slippery Rock Creek, fouled by acid mine drainage;
3. Old-growth forest in Allegheny National Forest, site of extensive logging;
4. French Creek in northwestern Pennsylvania, the most biologically diverse waterway in the state;
5. Woodlands in the Bear Creek area of Luzerne County, threatened by development;
6. Acid mine drainage in Blacklick Creek, a tributary of the Conemaugh and Kiskiminetas rivers;
7. The Schuylkill River, drinking water source for 1.8 million Pennsylvanians;
8. Unami Creek, an important forest and bird habitat in Montgomery County;
9. French Creek in Chester County, an ecological and historic treasure;
10. Lancaster County farmland, threatened by Philadelphia-area sprawl.

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Most Special Places**

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Executive Summary

Severe cuts in two of Pennsylvania's key environmental programs – coupled with new policies that would intensify logging and oil and gas drilling on public lands – threaten the future of many key ecosystems across the state.

Earlier this year, Gov. Mark Schweiker announced deep cuts in the Keystone Recreation, Park and Conservation (Keystone) Fund, which has helped protect more than 35,000 acres of natural land since 1993, and in the Growing Greener program, which has supported countless local efforts to clean up long-polluted streams, protect key wildlife habitat, and expand recreational opportunities for Pennsylvanians.

Meanwhile, state officials have proposed the largest-ever sale of oil and gas drilling leases in state-owned lands – a move that could potentially impact more than 500,000 acres of state forest, mostly located in north-central Pennsylvania. In addition, the U.S. Forest Service is in the process of initiating two new timber sales in the Allegheny National Forest that would lead to extensive clear-cutting and road-building in Pennsylvania's only National Forest.

These policies would have major environmental impacts across the state. This report illustrates those impacts by highlighting the potential damage that could be done to ten important Pennsylvania ecosystems.

Specifically, the policies have the potential to:

- Slow the pace of land preservation in the **Schuylkill River watershed**, a 1,900 square-mile area in southeastern Pennsylvania that provides drinking water for more than 1.8 million people.
- Increase development pressures in the **Unami Creek Valley Woodlands**, the largest surviving band of forest in fast-growing Montgomery and Bucks counties; **the French Creek watershed of Chester County**, a natural and historic jewel located on the outskirts of the Philadelphia metropolitan area; and **the Bear Creek area of Luzerne County**, which is threatened by rapid development in the Poconos region.
- Delay protection for highly productive **farmland in Lancaster and Chester counties**, where sprawl threatens to overtake farms that have served as the breadbasket of the Northeast for three centuries and destroy the region's rich tradition of family farming.
- Allow acid mine drainage to continue to pollute rivers and streams in the **Slippery Rock Creek** and **Kiskiminetas-Conemaugh River watersheds** in Western Pennsylvania.



Forests and farmland throughout Pennsylvania are being rapidly lost to development—with major consequences for wildlife and water quality. The Keystone Fund and Growing Greener represent Pennsylvania's commitment to preserving the state's land resources and protecting waterways. Now, that commitment is in jeopardy.

- Limit efforts to prevent nutrient runoff from farmland into **northwestern Pennsylvania's French Creek**, the most biologically diverse waterway in Pennsylvania.
- Pollute waterways and fragment natural habitat in the Susquehannock, Sproul, Tioga, Tiadaghton and other state forests and **state-owned lands in north-central Pennsylvania**.
- Destroy thousands of acres of forest in the **Allegheny National Forest**, fragmenting wildlife habitat, polluting waterways, and impinging on natural treasures such as Pennsylvania's largest remaining stand of old-growth forest.

To preserve these and hundreds of other important ecosystems across the state, Pennsylvania must follow through on its commitments to environmental preservation. Specifically, the state should:

- Restore promised funding to the Keystone Fund, whose dedicated source of funding was cut in 2002.
- Fully fund the \$650 million, five-year commitment made by former Gov. Tom Ridge to the Growing Greener program, and increase funding for the program to deal with the billion dollar-plus backlog in conservation programs. Funds for the project should come from an independent, dedicated funding source and not be diverted from other environmental programs.
- Abandon plans to lease a half-million acres of state forests for oil and gas drilling. Widespread oil and gas drilling is incompatible with the continued use of state forests as wildlife habitat, recreational areas, and protected headwaters for rivers and streams. In addition, the Legislature must guarantee that public input be solicited and taken into account before future lease sales are approved.

In addition, the federal government should abandon plans to intensify logging in the Allegheny National Forest. Federal officials should also set aside more of the forest as protected wilderness, ensuring that it will continue to serve ecological needs for generations to come.

Introduction

Pennsylvanians have a deep connection with the natural environment. Generations of Pennsylvania residents have been raised to enjoy long hikes in our vast forests, trout fishing in our cold-water streams, or simply to appreciate nature while boating, biking or camping.

Yet, for others, Pennsylvania's environment has served mainly as a source of wealth to exploit. In every corner of the state, mining, logging, oil drilling, industrial and suburban development have left deep scars on our forests, mountains, rivers, streams and farmland.

These threats continue – and, in some cases, are intensifying – today. From Western Pennsylvania, where abandoned mines continue to leach acid and metals into local streams, to the Philadelphia area, where rampant sprawl threatens to swallow up rich farmland and irreplaceable natural treasures, Pennsylvania faces the challenge of restoring a healthy environment following generations of pollution, and amid constant new threats.

In small ways, that challenge has begun to be met. Through state programs such as Growing Greener and the Keystone Recreation, Park and Conservation (Keystone) Fund, hundreds of millions of dollars have been spent to restore degraded waterways, protect key tracts of agricultural and natural land, confront the legacy of mine pollution, and enhance Pennsylvanians' access to the state's natural treasures. Meanwhile, many Pennsylvanians – whether they are farmers, anglers, or just ordinary citizens – have taken up the mantle of environmental stewardship, committing themselves to restoring their own little piece of the Keystone State.

Yet, that progress – however limited – is now in jeopardy. Short-term fiscal pressures have pushed state officials to reverse what was to be a long-term commitment to restore Pennsylvania's environment. Matching funds for local environmental projects have been cut or delayed. Improvements to parks and recreational facilities have been pushed back. Worse, extensive new leases for oil and gas drilling are to be issued in some of the state's most popular natural areas, threatening the future of lands many Pennsylvanians had assumed were permanently protected.

What will be the cost of these policies? To find the answer, one must look at individual ecosystems, the threats they face, and the role state programs such as the Keystone Fund and Growing Greener have played in their restoration. This report singles out 10 such ecosystems, each of which provides important contributions to Pennsylvania, its citizens and its environment – and each of which faces serious threats.

These 10 ecosystems represent the wide range of threats posed to Pennsylvania's natural environment. Several have been the site of intense environmental degradation that is only now beginning to be addressed. Others have remained viable ecosystems



Lancaster Farmland Trust.

Farmland across the state has come under increasing development pressure. Money from the Keystone Fund and Growing Greener has been used to protect thousands of acres of farmland and to reduce water pollution from land that remains in agriculture.

for generations, but now face new threats. Still others are areas of national or international significance – places we simply cannot afford to lose. How we respond in these ten areas will largely tell the story of whether Pennsylvania continues to follow through on its commitment to restoring and preserving our natural environment, or whether we will allow our best natural places to be irrevocably harmed.

Pennsylvania's Commitment to Preservation: Will the Promise Be Kept?

Centuries of intensive logging, mining, industrial development and sprawl have left deep and long-lasting scars on Pennsylvania's environment. Over the last several decades, the state government has begun to take action to correct this history of degradation, but until recently, those actions had rarely been backed up with enough funding to make more than a small dent.

Beginning in the early 1990s, however, that began to change, thanks to two initiatives that finally allotted significant amounts of money to address long-standing environmental problems.

Keystone Fund

The Keystone Fund was created in 1993 to aid in the acquisition and improvement of parkland and recreational facilities in the Commonwealth. Money for the fund comes from a dedicated source: 15 percent of the state's real estate transfer tax – a one percent tax on the value of real estate sold in the Commonwealth. A 1993 referendum approved by 67 percent of Pennsylvania voters supplemented the fund with \$50 million in bond revenues.

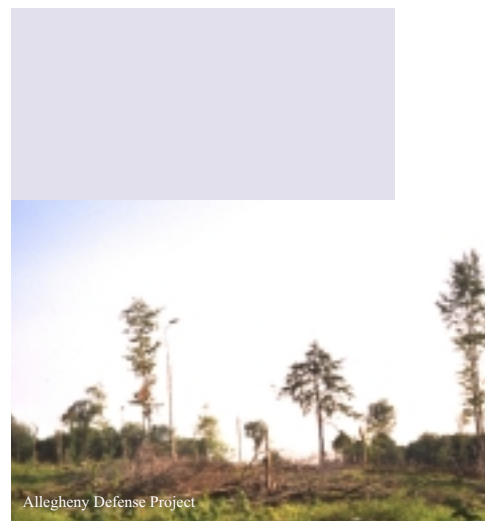
Since its inception, the Keystone Fund has supported more than 1,400 community park and recreation projects, protected 35,000 acres of critical natural areas, built hundreds of miles of recreational trails, supported 740 projects in state parks and forests, and provided important support for conservation of the state's rivers.¹

Growing Greener

In 1999, the state made an even larger commitment to environmental restoration and preservation with the creation of Growing Greener – a five-year, \$650 million program to protect sensitive watersheds, create recreational opportunities, preserve farmland and open space, improve sewage treatment plants, and enhance the capacity of citizens to protect and restore their local ecosystems.

In just three years, Growing Greener has had a tremendous impact, funding programs that have restored 370 miles of streams polluted by acid mine drainage, plugged more than 1,000 oil and gas wells, helped protect more than 40,000 acres of farmland, and improved many state parks and forests.²

Despite the unprecedented funding commitment, many more organizations have sought Growing Greener funding than have received it. The Department of Environ-



Allegheny Defense Project

Pennsylvania's public lands are under increasing stress. Federal officials have proposed clear cutting nearly 5,000 acres of the Allegheny National Forest (above). Meanwhile, state officials are planning to issue leases for oil and gas drilling in a half-million acres of state forests, most of them in north-central Pennsylvania.

mental Protection, for example, has been able to provide only one-fifth of the amount of money requested for environmental projects through the program.³ Unlike the Keystone Fund, Growing Greener has never had a dedicated source of funding; it relies instead on annual appropriations from the state's general revenues and several special funds.

Both the Keystone Fund and Growing Greener are matching programs. Local non-profits or governments must raise at least as much money for the projects as they receive from the state. As a result, every dollar invested by the state in the two programs has brought with it at least another dollar dedicated to environmental preservation.

Fiscal Crisis and Funding Cuts

In 2001, the nation's economy went into recession, causing revenue shortfalls and budget deficits in states across the nation. Pennsylvania was no exception.

To deal with the sudden loss of expected revenue during Fiscal Year 2002 – and the anticipated loss of revenue during Fiscal Year 2003 – the Schweiker administration imposed cuts on many state programs. Those cuts hit the Keystone Fund and Growing Greener particularly hard. Growing Greener suffered a 50 percent retroactive cut in its general fund allotment for Fiscal Year 2002 – the largest such cut suffered by any state program – and another 50 percent cut in general funding for Fiscal Year 2003.⁴ The cuts will leave Growing Greener with \$86.9 million for Fiscal Year 2003, as opposed to the originally projected \$135.5 million.⁵ Meanwhile, the Keystone Fund suffered a \$7 million retroactive cut for Fiscal Year 2002 and a \$25 million cut for Fiscal Year 2003, reducing the allocation to the program by half.

State officials claim that the cuts to Growing Greener are temporary, and will have little impact on program funding due to the use of new accounting techniques. Any funds cut, they claim, will be restored by adding a sixth year to the program.

Nevertheless, the cuts to the Keystone Fund and Growing Greener both call into question the state's long-term commitment to environmental restoration and preservation and threaten to condemn important areas of the state to environmental degradation.

First, the cuts to the Keystone Fund violate the state's original promise of a dedicated funding stream for the program – in essence, diverting money that had been intended for environmental causes to other programs. This sets a dangerous precedent, not only for environmental programs, but for all other state programs reliant on so-called “dedicated funding.”

Second, there is no guarantee that Gov. Schweiker's pledge to extend the Growing Greener program for a sixth year will be upheld in the future. The fate of Gov. Ridge's previous commitment to a five-year, \$650 million program shows that promises made in one gubernatorial administration do not necessarily carry over to the next.

Finally, the continued challenges faced by Pennsylvania's environment – particularly the challenge posed by encroaching sprawl – suggest that any delay in the two programs is a dangerous delay. The longer the state puts off funding for land preservation, the more likely it is that landowners will choose to sell off to developers rather than wait for state funding that may or may not come. Once these lands are sold and developed, they cannot be reclaimed – no matter how much money is allocated to the programs in later years.

Oil and Gas Drilling in State Forests

Even as state officials cut funding for efforts to restore degraded ecosystems across the state, they are simultaneously engaging in practices that could jeopardize some of Pennsylvania's most pristine natural areas.

Earlier this year, the Pennsylvania Department of Conservation and Natural Resources (DCNR) announced that it would lease approximately 500,000 acres of state-owned land for oil and gas drilling – the largest such lease sale in state history. The proposed sale is the fruit of years of lobbying by the oil and gas industries, which have aggressively pursued the opportunity to drill the Trenton-Black River “play” – a formation of gas deposits that lies between 10,000 and 15,000 feet under the surface of the central Appalachians.

The drilling proposal has a fiscal tie-in as well: DCNR estimates that the sale could bring in at least \$7.5 million to the state, which would be dedicated to recreation, conservation and flood control projects – ironically, the same types of projects suffering from the cuts to Growing Greener and the Keystone Fund.⁶ State officials have denied that the lease sales were initiated to fill gaps in the department's budget, instead citing a “high level of interest by the industry” in drilling the area.⁷

While DCNR officials knew of the oil and gas industry's interest in drilling, they have done virtually nothing to solicit the public's opinion about the plan. Initially, DCNR did not even plan to accept public comment on the leasing plan and agreed to do so only under significant public pressure. In addition, DCNR has scheduled no open public hearings on the plan, only a series of informal “outreach sessions.” Moreover, DCNR has not conducted – and has no plans to conduct – a detailed, public environmental impact analysis of the drilling proposal; leaving both the agency and the public in the dark about the possible environmental ramifications of the plan.

The prospect of more roads, drilling pads and rigs in state forests – and the threat of blowouts and other dangerous releases of oil, gas, or toxic chemicals – jeopardizes the future of a string of state forests in north-central Pennsylvania. But the decision to issue this largest-ever lease sale also sets a dangerous example of the state's willingness to open up its most pristine publicly owned lands for exploitation.

For many years, exactly this philosophy has dominated the U.S. Forest Service's management of the Allegheny National Forest. Even there, however, recent actions

signal an intensification of development. Two major timber sales have been proposed that would result in the logging of about 14,000 acres of the half-million acre forest – with more than a third of that land to be clear cut. These threats have led one national organization to label the Allegheny the nation's most endangered National Forest.⁸

Yet, the Allegheny National Forest is far from the only ecosystem in Pennsylvania under threat. As this report will illustrate, shortsighted policies at the state (and, in one case, federal) level pose serious threats to a wide range of ecosystems in every corner of the state.

Ten Special Places At Risk

Schuylkill River

The Schuylkill River watershed encompasses approximately 1,900 square miles in southeastern Pennsylvania, including much of Schuylkill, Berks, Montgomery, Chester and Philadelphia counties. The river and its tributaries serve as the drinking water source for 1.8 million people in Philadelphia and its suburbs, as well as a haven for boating, fishing and riverfront recreation activities.⁹ The Schuylkill River's central role in early American history has been recognized through its designation as a state heritage corridor. The corridor includes a number of historic homes, canals, parks and towns.¹⁰

The Schuylkill River watershed faces significant water quality problems – partially due to the region's history of coal mining and partially due to ongoing sprawl. In the southeastern part of the watershed, near Philadelphia, the most common cause of water quality problems is urban runoff, which brings pathogens and excess levels of nutrients into the river. In the northwestern part of the watershed, acid mine drainage and metals contamination are major water-quality problems.¹¹ These pollution problems render more than half of the watershed's river and stream miles unsuitable for fishing, swimming or other uses.¹²

While Pennsylvania continues its long struggle to contain acid mine drainage, the other major problem facing the Schuylkill River system – runoff from urban sprawl – threatens to get worse. Berks County and other suburban areas of the watershed are expected to see their population increase by 30 to 50 percent over the next decade as a result of continued sprawl.¹³ Rapid suburban growth also has the potential to destroy valuable natural areas within the watershed. A 2001 report compiled for the Pennsylvania Department of Conservation and Natural Resources identified approximately 200,000 acres of sensitive land within the watershed as high priorities for protection – or about 15 percent of the total watershed area.¹⁴ Currently, only about 4.5 percent of the land area within the watershed is protected.¹⁵

In recent years, state programs such as the Keystone Fund and Growing Greener have played an important role in preserving land and water quality in the Schuylkill watershed. Through the first three years of Growing Greener grants, for instance, 32 projects totaling \$4.7 million have been funded to reduce runoff, purchase sensitive lands, study water quality problems and promote citizen involvement in watershed protection.¹⁶

In 2001, a group of scientists and conservationists completed a plan, supported by the Keystone Fund and encouraged by state officials, to protect and enhance the Schuylkill River watershed. The plan included 25 recommendations to improve water quality in the basin and 22 recommendations to create a “sustainable landscape” for



The Schuylkill River near its headwaters.

“The Schuylkill Watershed Conservation Plan is a road map for protecting and improving one of the most important water resources in the state. Of course, any plan is only as good as the action it inspires and the Keystone and Growing Greener programs are critical for success of the plan's implementation projects.”

David Harper,
River Conservation Program
Manager, Natural Lands Trust

the region.¹⁷ The plan has also energized the efforts of numerous watershed associations, county agencies and municipal governments to protect the waterway. But funding cuts in the Growing Greener program and the Keystone Fund could delay the implementation of the plan, leading to continued threats to water quality in this vital waterway.

Unami Creek Valley Woodlands

The woodlands of the Unami Creek Valley represent the largest contiguous stand of forest in southeastern Pennsylvania. The forests remain largely intact due to the area's unique hilly, rocky topography. The huge granite boulders that push up through the soil have historically made logging and development difficult. Only three percent of the land within the greater Upper Perkiomen Creek watershed (which includes the Unami Creek area) is developed.¹⁸

As a result, the Unami Creek Valley provides a unique source of habitat to a variety of wildlife species, including several locally endangered and threatened species. The woodlands provide important habitat for birds such as woodland warblers, owls, woodpeckers, small hawks and wood ducks. The Pennsylvania Audubon Society ranks the Unami Creek Valley as one of the most important areas for birds in the state.¹⁹ Other types of wildlife prosper as well, including less common mammals such as weasels, gray foxes, eastern coyotes and red squirrels.

With technological advances, however, it is now feasible for developers to build in the area. The area's proximity to the Lehigh Valley, Reading and Philadelphia areas has led to increased development pressure as sprawl has crept up Route 63, which connects to the Northeast Extension of the Pennsylvania Turnpike. Soon, there may be no limit to the number of homes that can be constructed in the area.²⁰

As is the case elsewhere, development in the Unami Creek area would bring more buildings, roads and power lines that would fragment natural habitat. However, development in the Unami Creek area also poses special problems. Due to the rocky landscape, accessible groundwater in the area is scarce. As new residents build wells, there could be a serious strain on the water table. In addition, logging the forest will destroy the natural water-filtering function that the land now provides for the creek, whose waters flow into Perkiomen Creek and eventually the Schuylkill River.²¹

To preserve this unique area from development, the Natural Lands Trust, Montgomery County Lands Trust and the Cradle of Liberty Scout Council have applied for Keystone Fund support to permanently protect a forested area that currently encompasses the Musser Scout Reservation.²² The Boy Scouts have been camping in the forest near Unami Creek since 1915 and currently maintain three camps that provide biking, wilderness camping, wildlife education, and sports through the spring and summer.²³ The first phase of the joint project was to secure an 880-acre conservation easement with Keystone Fund assistance. However, the acquisition of a conservation easement on an additional 316 acres has been delayed due to recent funding cuts.²⁴ The completion of these easements – and the protection of additional land within the area – will be needed to preserve the Unami Valley's natural and recreational assets from development.



Brian McNeill

The rocky outcroppings of the Unami Creek watershed have made development difficult and have helped preserve the area as habitat for birds and other wildlife.

"The Unami area has one of the largest extant forests in southeastern Pennsylvania. That's the reason that we want to protect it – that's why we feel so fortunate that the Boy Scouts were willing to entertain this offer to preserve the land."

Peter Williamson,
Natural Lands Trust

French Creek, Chester County

The French Creek watershed in Chester County covers 70 square miles and is part of the larger Schuylkill River system. Designated as a Pennsylvania Scenic River, French Creek was upgraded in 1997 to Exceptional Value status – making it one of the highest-quality waterways recognized by the state. Home to historic structures and state and national parks, and stocked annually with more than 40,000 trout, the creek and its surrounding area attract sight-seers, hikers, anglers, history buffs and many others.

Much of the area surrounding French Creek retains its rural character. Approximately one-third of the land within the watershed is agricultural, while only 16 percent is developed.²⁵ As a result, the creek has thus far not been significantly impacted by development and remains safe for fishing, swimming and other uses. In addition to the state park, various non-profits have worked – often in coordination with the state government – to purchase and protect other tracts of land in the region, such as the 600-acre Crow's Nest Preserve owned by the Natural Lands Trust.

Another such effort took place in East Vincent Township, where French Creek passes a former slaughterhouse that had been abandoned in the 1980s. With the assistance of grants from both the Keystone Fund and Growing Greener, the Green Valleys Association (a local watershed group) removed the decrepit building and replaced it with a public trail and creek access point for fishing.²⁶ The project not only eliminated visual blight on the riverfront, it also corrected a long-standing water pollution problem by eliminating stormwater runoff from the site.²⁷

While much has been done to preserve sensitive lands in the watershed, suburban sprawl continues to pose a threat to French Creek's future. The area's current agricultural and wooded lands lie directly in the path of Philadelphia-area suburban growth – growth that could accelerate dramatically in the region should plans to expand Route 100 to Pottstown go ahead. The population of the watershed, currently only 25,000, is expected to grow by as much as 25 percent by 2020. If current trends continue, the amount of developed land in northwestern Chester County could double within the next two decades.²⁸

Such an expansion of development would not only bring profound changes to the area's historic, agricultural and natural character, but could also have negative effects on French Creek itself. Nutrient loading and other pollution from runoff into tributaries and French Creek could do much to upset the fine ecological balance that residents and state officials have worked so hard to preserve. Without continued funding for land preservation activities from the Keystone Fund and Growing Greener, more land within the French Creek watershed will inevitably be developed, jeopardizing a rare natural jewel in southeastern Pennsylvania.



Green Valleys Association

Volunteers help with the restoration of land along the banks of French Creek that had once been the site of a slaughterhouse. The project has eased stormwater runoff from the area into the creek.

“The Keystone Fund and Growing Greener program have helped to restore and protect the rich biodiversity and the very fragile ecosystem of the French Creek watershed.... It is the home of endangered species, both plant and animal. While the Growing Greener grants have allowed for restoration of some sites that have been negatively impacted in the past, the grants have allowed us to acquire property and help us work on pro-active planning.”

John Hoekstra,
Green Valleys Association

Lancaster and Chester County Farmland

The farmland of Lancaster and Chester counties is some of the richest and most productive in the world. More than one out of every four dollars earned by Pennsylvania's \$4 billion agriculture economy is generated by farmers in these two counties.²⁹ Lancaster County is the most productive county in the state for alfalfa hay, cattle, chicken, milking cow, corn for silage and grain, hog and pig, milk, egg and barley production.³⁰ Chester County leads in mushroom production.

The impacts of agriculture in the area have not been entirely positive. Nutrient runoff from farms in the two counties has caused water quality problems as far downstream as the Chesapeake Bay. On the whole, however, agriculture as practiced in the two counties has served to be more beneficial than its alternative – out-and-out sprawl.

Farmland that abuts natural forests tends to create “transition zones” that support a greater diversity of wildlife than can be found in forests alone. Effective soil management in the two counties has left the land – which has been farmed intensively for nearly three centuries – as productive as ever. That productivity, combined with a local climate that typically provides ample rainfall, reduces the need for water withdrawals for irrigation and other damaging farming practices. In addition, the food produced in the region provides an important resource to the tens of millions of people who live in nearby East Coast metropolitan markets.

That proximity to major cities such as Philadelphia, however, has also put Lancaster and Chester counties directly in the path of suburban sprawl. The two counties lost nearly 10 percent of their farmland over the 1987 to 1997 period.³¹ Lancaster County alone has lost more than 100,000 acres of farmland over the last half-century.³² In contrast, the number of housing units in the two counties increased by 16 percent between 1990 and 2000.³³

With the proposed expansion of Route 23 into a four-lane highway through Lancaster County, farmland continues to be at risk. The highway would be a major East-West route, almost certainly bringing the new commercial development often associated with major roads.³⁴ Because the potential for development tends to increase the assessed value of land, even farmers who want to hold onto their land may have a difficult time surviving the increased property tax burden they would face.

In recent years, state and local officials and area residents have begun to make progress toward preserving this one-of-a-kind resource. Government-purchased conservation easements now cover more than 40,000 acres of land in Chester and Lancaster counties. Thousands more acres have been preserved by non-profit organizations and land trusts. Pennsylvania's farmland preservation program is recognized as a national leader, thanks in part to the infusion of resources that came as a result of the Growing Greener program. In the first 100 days of the Growing Greener program in 2001, 461 acres on four Lancaster County farms were permanently protected.³⁵



Bob Nichols, USDA Natural Resources Conservation Service

Conservation easements now cover more than 40,000 acres of farmland in Lancaster and Chester counties. But cuts to the Keystone Fund and Growing Greener could result in more farms like the Lancaster County farm shown above being paved over for development.

“Lancaster County has the most productive, non-irrigated farmland in the United States, top three in the world. And we're losing well over 1,000 acres per year to development”

Carol Parrish,
Lancaster Farmland Trust

However, the wait for protection can last years. The Erb family farm in East Donegal had been on the waiting list for a conservation easement for eight years when the Growing Greener program finally provided the funds to protect it in February 2001.³⁶ Because of the farm's close proximity to the public sewer system, the property is very attractive to developers. While waiting for the conservation easement, the family was tempted by offers from developers to purchase building lots.³⁷ Many farmers cannot afford to wait for eight years while local land trusts raise money for conservation easements.

There are still tens of thousands of acres of farmland in both counties that are in need of preservation. Even at the recent record pace of farmland preservation, it would take approximately 32 years to fully protect the 270,000 acres of land currently zoned agricultural in Lancaster County.³⁸ Statewide, Pennsylvania's farmland preservation program had 1,600 farms on its waiting list as of 2001.³⁹ In Lancaster County alone, 272 farms are currently on a waiting list for easement protection.⁴⁰

Cutbacks in the Growing Greener program could result in even longer waits for family farmers who want to ensure that their land remains in farming. Those waits will inevitably result in more of this world-renowned agricultural resource falling to the bulldozer.

Slippery Rock Creek

Like many areas in Western Pennsylvania, the Slippery Rock Creek watershed has been the site of intensive mining activity – activity that continues to impact the environment to the present day. As early as 1970, the 410-square mile watershed in Butler County was recognized as among the most severely impacted in the state by acid mine drainage. About 4,000 acres of the 27-square-mile headwaters area are underlain by mines, creating mine drainage problems that gave Slippery Rock Creek the nickname “Sulfur Creek” among locals. Stretches of the creek have been devoid of fish for a century.⁴¹

Beginning in 1994, a coalition of citizens, businesses and government agencies began the task of restoring the creek and its surrounding watershed. Under the leadership of the Slippery Rock Watershed Coalition, 12 passive treatment systems for mine drainage have been installed in the area, removing approximately 150 tons of iron, eight tons of aluminum and 182 tons of acidity annually from Slippery Rock Creek. In addition, about 100 acres of habitat and farmland have been reclaimed and about 10 acres of wetlands constructed.⁴² Portions of the creek that have been without fish are beginning once again to support aquatic life.

Much of the work to reduce mine drainage has been supported through grants from the Growing Greener program, with the coalition receiving \$1 million in 2001.⁴³ For the past eight years, the Slippery Rock Watershed Coalition has focused its restoration efforts almost exclusively on the headwaters, where the waters were most severely polluted. Not only do many more sites in the headwaters region remain to be restored, but the coalition also wants to begin restoration work further downstream. Without a consistent source of state funding – such as the money provided by Growing Greener – there will be few resources available to replicate the coalition's successful strategies elsewhere in the Slippery Rock watershed, condemning the waterway to even more years of pollution.⁴⁴



Water in a stream in the headwaters area of Slippery Rock Creek runs orange with dissolved iron from mine drainage. The Growing Greener program has supported efforts to restore streams in the area to the point where they can once again sustain aquatic life.

“It’s really exciting – we’re starting to see fish in sections of the creek where there haven’t been fish in a hundred years. Our work with mine reclamation is making a difference in this beautiful watershed.”

Cliff Denholm,
Slippery Rock Watershed Coalition

French Creek, Northwestern Pennsylvania

French Creek is one of the most biologically diverse waterways in the northeastern United States. Its 117 miles are home to an astounding variety of aquatic life – 25 species of freshwater mussels (two of them endangered); 88 species of fish, including 15 species of darters; and the hellbender salamander, which, at lengths of up to 29 inches, is the largest salamander in North America.⁴⁵

That French Creek has retained its ability to sustain such a variety of life through the centuries is, in part, a result of geological good fortune. Unlike much of Pennsylvania, which is underlain by coal formations, the 1,200-square mile French Creek watershed is virtually devoid of coal. The absence of coal has meant that the river has not been subjected to acid mine drainage – the scourge of hundreds of other waterways, large and small, across Pennsylvania.

French Creek has also been left relatively untouched by humans. The creek has few dams and is one of Pennsylvania's few mostly free-flowing rivers, enabling species like mussels and darters to continue to thrive in the creek's fast-flowing riffles.

To this day, the French Creek watershed remains largely rural. More than half of the watershed area is forested, with 40 percent devoted to agriculture.⁴⁶ But just because French Creek is relatively undisturbed and isolated doesn't mean it has been ignored: the area remains a destination for hunting, fishing and other natural recreation activities.⁴⁷

Changing land-use patterns, however, pose new threats to French Creek. Suburban development in the Erie area has led to the loss of 17 percent of Erie County's farmland since 1978, while Meadville-area expansion has helped lead to the loss of 18 percent of Crawford County's farmland over the same period.⁴⁸ Releases from sewage treatment systems and failing septic tanks are a major concern.⁴⁹ Nutrient loading from the area's remaining farms is also a major worry. State environmental officials have acknowledged that poor farming practices are a major threat in the French Creek watershed – a threat exacerbated by the consolidation of farms and loss of riparian buffers.

While hunting, fishing and outdoor recreation are common within the watershed, very little land within the French Creek system has been set aside for preservation. Only four percent of the total land area of the watershed is publicly owned. There are no state parks and only one small segment of state forest within its bounds. There are several state game lands as well as the Erie National Wildlife Refuge. The Audubon Society has designated four important bird areas within the watershed.⁵⁰

Grants from Growing Greener have provided an important boost to efforts to protect the French Creek watershed, including the restoration and cleansing of the creek as it passes through Meadville, the stabilization of stream banks along tributaries of the creek, and the creation of riparian buffers. One key initiative has been the institution of best management practices (BMPs) on local farms to prevent agricultural runoff into



French Creek Project

French Creek is a free-flowing waterway for most of its length in northwestern Pennsylvania.

"French Creek is one of the few streams in Pennsylvania where you can see the same aquatic diversity that existed 250 years ago, when it was named by George Washington. I see it as a natural history treasure chest; when you look below the surface, you're looking back in time."

Brian Hill,
French Creek Project

the creek. Funding made possible through Growing Greener grants has enabled nine farms to implement BMPs and the cooperative nature of the project has resulted in stronger relationships between landowners and environmentalists.⁵¹

The future of French Creek depends on the spread of BMPs to even more farms in the area, as well as the adoption of practices to limit the potential impacts of suburban sprawl on the waterway. Without continued funding through Growing Greener, the pace of these improvements will undoubtedly slow, leaving one of Pennsylvania's hidden ecological treasures at risk.

Kiskiminetas and Conemaugh Rivers

For the better part of a century, abandoned underground mines have leaked metals and acids into the Kiskiminetas (or Kiski) River, the Conemaugh River and their tributaries, rendering most of the waterways within the 1,900 square-mile watershed unfit for fishing, swimming or other uses.⁵² The problem is so severe that the Army Corps of Engineers must manage the release of polluted water from the Kiski and Conemaugh to prevent fish kills downstream in the Allegheny River.

The problems posed by mine drainage on the Kiski and Conemaugh are the sum of the problems faced by its tributaries. One of those tributaries is Blacklick Creek, which drains a 420 square-mile portion of Indiana and Cambria counties. A total of 142 abandoned mines have been discovered within the Blacklick Creek watershed – four of which rank among the 40 worst dischargers of acid mine drainage in Western Pennsylvania. An average of 300,000 pounds of acid drains into the watershed each day. Water monitoring performed in 1994 found pH levels of 3.9 to 4.0 on the creek, indicating strongly acidic waters.⁵³

Despite this history of pollution, Blacklick Creek and its watershed remain important recreational and economic resources. The Two Lick Reservoir on Two Lick Creek, a tributary of the Blacklick, serves as a primary source of drinking water for the city of Indiana as well as a source of water for industry. Portions of the creek and its tributaries still serve as trout fisheries, while the Blacklick Valley Natural Area attracts visitors with its 48 acres of woodland, including a 45-foot waterfall. A popular new attraction is the Ghost Town Trail – a 19.5-mile bicycle trail along the creek from White Mill and Nanty Glo in Cambria County to Dilltown in Indiana County. The trail (which has received money from the Keystone Fund to support a planned expansion) passes two former mining towns as well as the Eliza Blast Furnace, a circa 1840s hot blast furnace that is a Registered National Historic Site.⁵⁴

Now, with significant help from Growing Greener, the problem of acid mine drainage in the creek is finally being addressed. Growing Greener has provided more than \$1.7 million in grants for the treatment of acid mine drainage in the Blacklick Creek watershed.

Those efforts are paying off in waterways like Yellow Creek, a tributary of the Blacklick, which was generally devoid of aquatic life prior to the installation of a nearby mine drainage treatment system. In the three years since the project was completed, nearly a half-mile of the stream has recovered to the point that it can support stocked trout for part of the year.⁵⁵

The drive to keep acid mine drainage out of Blacklick Creek is indicative of similar efforts throughout the Kiski watershed. At nearby Blacklegs Creek, for example, a local watershed organization has used Growing Greener funding to install a passive treatment facility at one mine site that eliminates the release of eight tons of iron per year into the creek.⁵⁶



Blacklick Creek Watershed Association

The main stem of Blacklick Creek – a major tributary of the Conemaugh and Kiski rivers – is heavily polluted with acid mine drainage. With help from Growing Greener, the Blacklick Creek Watershed Association has undertaken several projects to reduce the flow of mine drainage into the creek and its tributaries.

“Blacklick Creek is one of the major contributors to the problems of pollution in the Kiski-Conemaugh watershed. The main stem Blacklick is virtually a destroyed stream. It looks orange. It smells foul. But it could be a beautiful stream.”

Bob Eppley,
Blacklick Creek Watershed
Association

Yet, the challenge of reclaiming Blacklick Creek and the rest of the Kiski-Conemaugh watershed is immense. The leader of the Blacklick Creek Watershed Association estimates that existing projects have only achieved five percent of what will be needed to restore waterways in the area to health.⁵⁷ At least 80 additional sources of acid mine drainage have yet to be remediated. And the water in the main stem of Blacklick Creek remains the characteristic red-orange of a stream fouled by mine drainage. Even the successful project at Yellow Creek is less than half-completed.

Without a continued commitment of funding from the state, the dream of restoring Blacklick Creek and other waterways within the Kiski-Conemaugh watershed will again be deferred – with consequences not only for the residents of watershed, but for everyone who lives downstream.

Bear Creek Area, Luzerne County

The Poconos were once the place New Yorkers went for the summer to get away from it all. In the 1990s, however, New Yorkers came to stay, and, in the process, began to transform the region into the westernmost part of the massive New York-New Jersey metropolitan area.

The numbers tell the story. From 1990 to 2000, the three fastest-growing counties in Pennsylvania were all located in the Poconos. Pike County saw its population grow by 62 percent in the 1990s, Monroe County grew by 45 percent, and Wayne County by 19 percent. Since 1970, Monroe County's population has tripled – from just 46,000 residents 30 years ago to more than 138,000 today.⁵⁸

Sprawl hasn't yet overtaken Bear Creek, a mostly rural township in the southeastern corner of Luzerne County, about 10 miles away from the Monroe County border. But all the ingredients are in place for large portions of the area to fall prey to developers. Bear Creek has its own exit on the Northeast Extension of the Pennsylvania Turnpike and it sits just a few miles away from the city of Wilkes-Barre, making it a convenient spot for commuters. The possible restoration of direct passenger train service from Scranton to New York City could also make Bear Creek and places like it more attractive for those working in Manhattan.

In recent years, suburban development has begun to make inroads in the area. One new development, Laurelbrook Estates, targets high-end home buyers with three- to nine-acre wooded lots and homes of 2,400 square feet or more.⁵⁹

While such developments are targeted to those who like to be close to nature, they also hold the potential to mar what has been a relatively intact swath of woodland that includes several state game lands. The woodlands provide a natural buffer around Bear Creek, a tributary of the Lehigh River. Portions of the area are also ecologically unique, such as Arbutus Peak, a 5,000-acre barrens area that is home to fifteen rare invertebrates and a moth that is found nowhere outside of Pennsylvania.⁶⁰ Barrens ecosystems are particularly incompatible with development because they rely on fire to survive.

The threat of intensified development has brought greater urgency to local efforts to preserve natural lands in the area. In 1999, more than \$430,000 from the Keystone Fund was used to protect 1,700 acres of land at Arbutus Peak.⁶¹ State funding is also being used to secure another 3,200-acre conservation easement at Bear Creek's confluence with Shade Creek. Owners of another 6,000 acres of land are seeking conservation easements that could be supported through the Keystone Fund.⁶² Without continued access to these funds, much that is special about the Bear Creek area could be permanently lost.



The wooded expanse of the Bear Creek area in southeastern Luzerne County provides an important buffer for the Lehigh River (at bottom of photo).

"Everybody wants to live in the Poconos. But the more crowded it gets, the more difficult it is to recreate. And that's what people come here to do, to recreate."

Linda Thoma,
North Branch Land Trust

Allegheny National Forest

The Allegheny National Forest is Pennsylvania's only national forest, stretching over more than 500,000 acres in northwestern Pennsylvania. The forest provides important habitat for a host of wildlife species, excellent hunting, fishing and hiking opportunities, as well as some of Pennsylvania's most important ecological treasures.

One of those treasures is the Tionesta Scenic and Research Area, the largest stand of old-growth forest remaining in Pennsylvania. The 4,000-acre area contains 300- to 400-year-old beech and hemlock trees, many of which tower more than 120 feet. The area provides a home to a variety of species, including birds such as barred owls, goshawks, thrushes and warblers that prefer old-growth forests.⁶³

However, the Allegheny National Forest is far from undisturbed. Much of the forest continues to be subject to intensive logging and oil and gas activity. New threats include two major proposed timber sales. The East Side sale – the largest in any eastern National Forest – includes more than 8,000 acres, 3,000 of which would be clear cut.⁶⁴ The Spring Creek sale would include nearly 6,000 acres, 1,900 of which would be clear cut.⁶⁵ Both projects would require extensive new road construction.

Meanwhile, oil and gas drilling in the Allegheny National Forest has increased by 500 percent over the past six years. More than 90 percent of the minerals under the forest are privately owned, leading to the continuing specter of potential mining and drilling.⁶⁶

Less than two percent of the land within the national forest is protected as wilderness. Even the Tionesta area is not immune to the pressures of logging and resource extraction. The East Side timber sale area is directly adjacent to Tionesta and half of the mineral rights under the Tionesta old growth remain in private hands. As of 2000, there were 120 active and inactive oil and gas wells within the Tionesta area.⁶⁷ These continued threats to the Allegheny National Forest led the National Forest Protection Alliance to name it the most endangered National Forest in the U.S. in a 2001 report.⁶⁸

Unlike each of the other nine vulnerable ecosystems profiled in this report, decisions over the fate of the Allegheny National Forest are in federal, not state hands. Only immediate action at the federal level to cancel the East Side and Spring Creek sales – and extend permanent protection to more of the forest – will succeed in preserving this resource for the future.



The Tionesta area of Allegheny National Forest is the largest stand of old-growth forest in Pennsylvania, providing crucial habitat for wildlife. The area is threatened by logging and oil and gas drilling.

“The Allegheny National Forest is one of Pennsylvania’s most important public land treasures, but continues to be threatened by a regime of clear cutting which is causing much of the forest to convert into a monoculture of black cherry trees. The Allegheny National Forest is both the birthplace of the oil and gas industry and the poster child for the type of destruction that can be caused by this drilling.”

Rachel Martin,
Allegheny Defense Project

North-Central Pennsylvania State Forests

The state parks, forests and natural areas of north-central Pennsylvania create a nearly unbroken band of forested land arcing almost 100 miles from Clearfield in the west to Williamsport in the east. While much of the land has been intensively logged over the course of generations (and some is still logged today), this expanse of land provides crucial habitat for wildlife as well as ample recreational opportunities for Pennsylvanians.

Deer, bear, turkey, grouse and ducks make their home in the woods, attracting large numbers of hunters. Other species, such as bobcats, bald eagles, and red and gray foxes are beginning to appear more frequently. Trout fishing, boating and hiking are popular activities. And the area is home to some of the state's most breathtaking vistas, such as Pine Creek Gorge, otherwise known as the Pennsylvania Grand Canyon.

Poor logging practices have long threatened these special areas. But they are now facing a new threat from the proposed sale of oil and gas drilling leases on hundreds of thousands of acres of state lands. Most of the drilling would be concentrated in north-central Pennsylvania, with some activity also expected in southwestern Pennsylvania's Fayette County.

While state parks, wild areas, and natural areas would be excluded from drilling activity, directional drilling taking place on abutting state forest land would allow access to oil and gas deposits under these areas. Drilling apparatus could be set up as close as 660 feet from the edge of state parks and natural areas, and the proposed lease does not prohibit the construction of roads, pipelines and other surface facilities within these areas.⁶⁹ Existing rules also allow the Pennsylvania Department of Conservation and Natural Resources (DCNR) to waive key environmental protections without public review.

DCNR anticipates that the sale will result in the development of between 15 and 25 well sites, each with a "footprint" of three to five acres.⁷⁰ Others suggest that many more well sites could be developed as a result of the sale. This impacted area does not include disruptions due to seismic exploration, roads, pipelines and other activities needed to support drilling activity.

The result could be the initiation of oil and gas drilling activity perilously close to such natural features as Pine Creek Gorge and the Hammersley Wild Area of Susquehannock State Forest – at 25,000 acres, the largest expanse of roadless forest in Pennsylvania.⁷¹

The oil and gas development proposal has the potential for serious impacts on the ecological integrity and recreational value of these important publicly owned lands. Routine drilling and construction activities hold the potential for sediment runoff into streams, noise and light pollution, habitat fragmentation, and the degradation of scenic vistas. Further, drilling activity brings the potential for accidental releases of oil,



Pa. Department of Conservation and Natural Resources

Pine Creek Gorge (the "Pennsylvania Grand Canyon") is just one of the areas that could be affected by plans to drill for oil and gas in north-central Pennsylvania's state lands.

gas, or toxic substances through blowouts, pipeline leaks, and the leakage of contaminated drilling wastes.⁷²

Public outcry over the lease sale has resulted in a delay of the sale until late summer. DCNR has scheduled no open public hearings on the plan, only a series of informal “outreach sessions.” In addition, DCNR has not conducted – and has no plans to conduct – a thorough, public environmental review of the project. As a result, there can be little confidence that the lease sale will truly protect some of Pennsylvania’s most important – and most treasured – stretches of natural land.

Recommendations

The 10 ecosystems highlighted in this report are among hundreds – if not thousands – of special places across the Commonwealth that stand to suffer from a reversal of Pennsylvania’s commitment to environmental preservation.

Pennsylvania cannot afford to let short-term fiscal constraints result in the long-term degradation of its natural lands. Instead, the state should:

- Restore promised funding to the Keystone Fund, whose dedicated source of funding was cut in 2002.
- Fully fund the \$650 million, five-year commitment made by former Gov. Tom Ridge to the Growing Greener program, and increase funding for the program to deal with the billion dollar-plus backlog in conservation projects. Funds for the program should come from an independent, dedicated funding source and not be diverted from other environmental programs.
- Abandon plans to lease a half-million acres of state forests for oil and gas drilling. Widespread oil and gas drilling is incompatible with the continued use of state forests as wildlife habitat, recreational destinations, and as protected headwaters for many Pennsylvania rivers and streams. In addition, the Legislature must guarantee that public input be solicited and taken into account before future lease sales are approved.

In addition, the federal government should abandon plans to log the Allegheny National Forest. Federal officials should also set aside more of the forest as protected wilderness, protecting the area for generations to come.

It should be noted that the above actions are the *minimum* the state should do to preserve its most vulnerable ecosystems. Even the funding commitments made to Growing Greener and the Keystone Fund have been insufficient to support many local efforts to preserve farm and natural lands, restore degraded watersheds, and improve parks and recreational facilities.

Growing Greener and the Keystone Fund have demonstrated the importance of state investment for environmental preservation. Building on the programs’ momentum will require a long-term commitment of resources by the state.

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