pec50

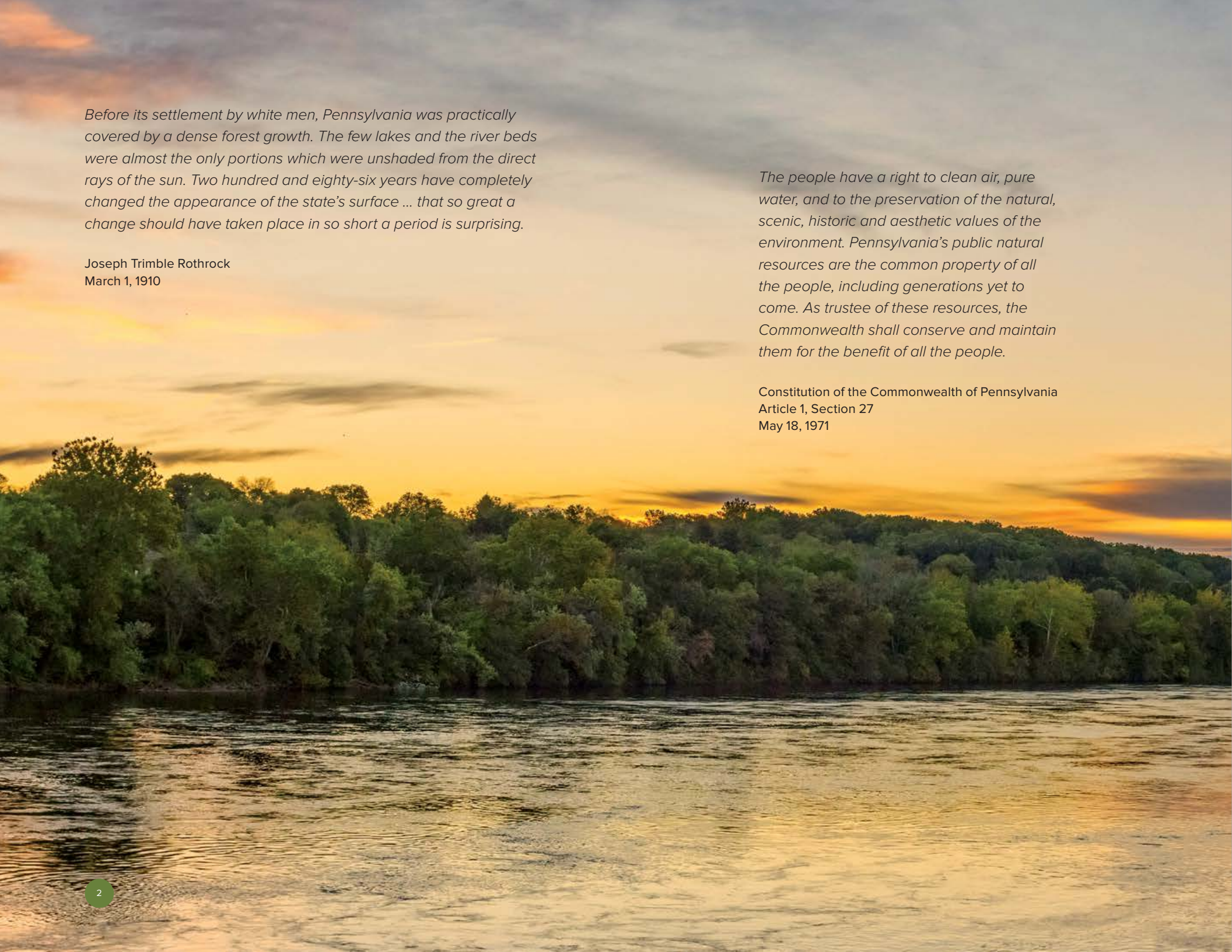
pennsylvania environmental council

1970-2020

In all debates, let truth be thy aim,
not victory, or an unjust interest.

— William Penn

Kings Gap State Park, Cumberland County



Before its settlement by white men, Pennsylvania was practically covered by a dense forest growth. The few lakes and the river beds were almost the only portions which were unshaded from the direct rays of the sun. Two hundred and eighty-six years have completely changed the appearance of the state's surface ... that so great a change should have taken place in so short a period is surprising.

Joseph Trimble Rothrock
March 1, 1910

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

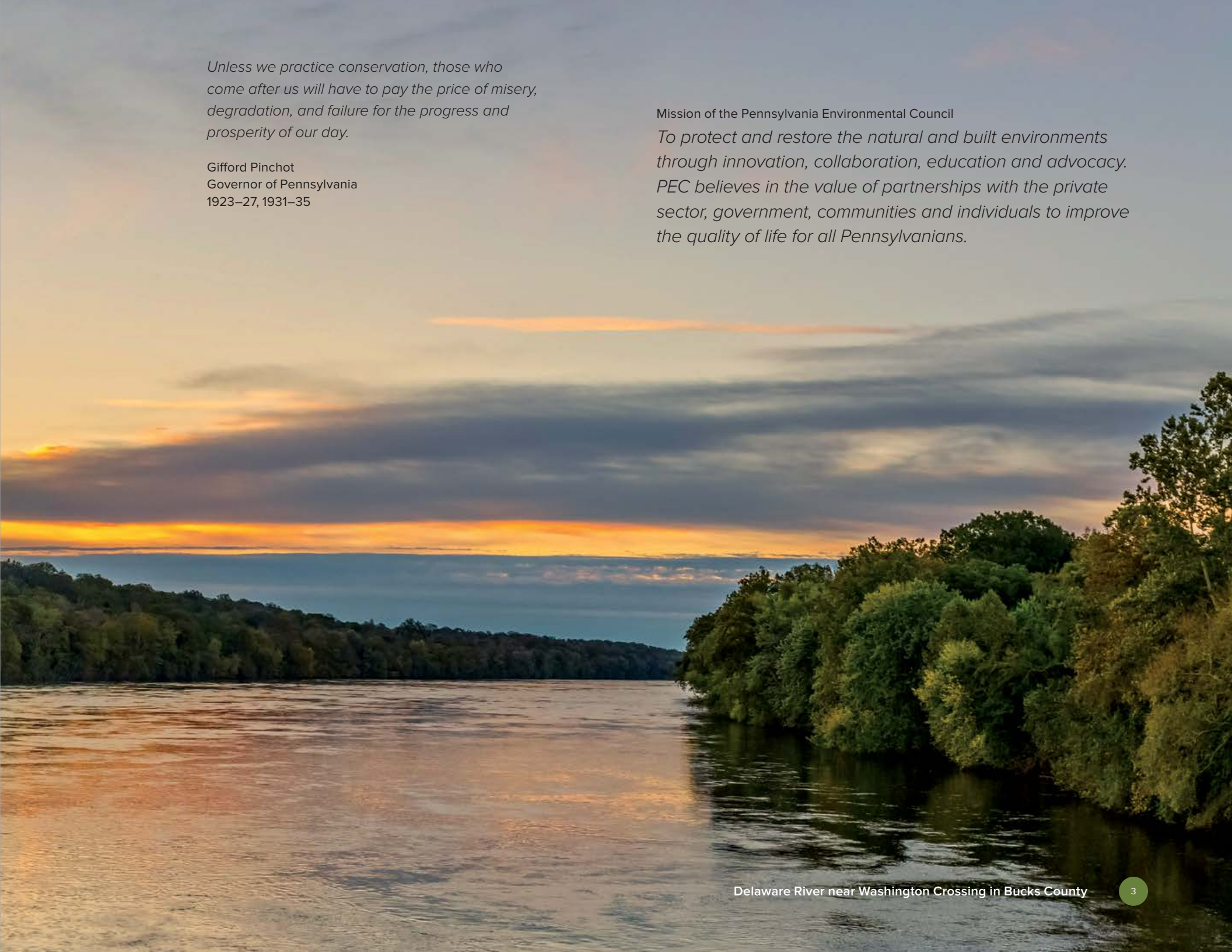
Constitution of the Commonwealth of Pennsylvania
Article 1, Section 27
May 18, 1971

Unless we practice conservation, those who come after us will have to pay the price of misery, degradation, and failure for the progress and prosperity of our day.

Gifford Pinchot
Governor of Pennsylvania
1923–27, 1931–35

Mission of the Pennsylvania Environmental Council

To protect and restore the natural and built environments through innovation, collaboration, education and advocacy. PEC believes in the value of partnerships with the private sector, government, communities and individuals to improve the quality of life for all Pennsylvanians.



Delaware River near Washington Crossing in Bucks County

1970-2020 pec50
pennsylvania environmental council

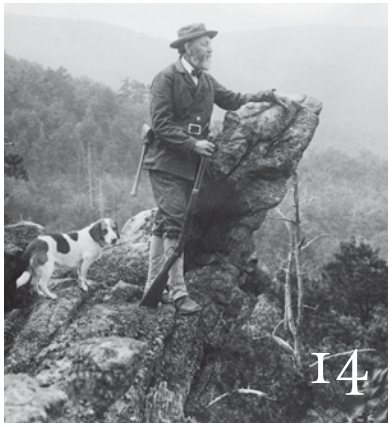
PEC is known throughout the Commonwealth as an honest broker of solutions to the most challenging environmental issues of our time.

In 1969, a group of Pennsylvanians gathered in State College to discuss the establishment of a statewide environmental "coordinating organization" to which individuals, other organizations, government, and business and industry could turn for information on environmental issues.

For the past 50 years, the Pennsylvania Environmental Council has remained steadfast to its founding principles and, in the great traditions of Pennsylvania's first citizens, built a table where opposing views can be heard and discussed. Today, PEC is known throughout the Commonwealth as an honest broker of solutions to the most challenging environmental issues of our time.

These pages are a tribute to all the people who have committed themselves to PEC's mission and work, since 1970, either directly or indirectly. This work, which has seen its share of both triumphs and setbacks, has always been carried out with purpose, care, passion and an unwavering belief in human decency and scientific integrity.

It is to them that this commemorative volume is dedicated.



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Welcome

"We see the commemoration of PEC's first 50 years as an opportunity to look forward and think about what may be on the horizon as well as what is directly in front of us."

On behalf of the Pennsylvania Environmental Council's board of directors and staff, we thank you for joining us in celebrating 50 years of environmental and conservation education, advocacy, and action. PEC's efforts have resulted in myriad successes over these years across a broad range of policy initiatives and conservation programs that have produced real and positive impacts in the Commonwealth.

Through the pages of this publication, we have taken the liberty of reflecting on a number of those outcomes as well as how we have addressed complicated issues. But this is not simply a chance to rest on our laurels or toot our own horn. We see the commemoration of PEC's first 50 years as an opportunity to look forward and think about what may be on the horizon as well as what is directly in front of us.

PEC's history has been built by taking on hard issues and problems, finding sensible and sustainable approaches, and making them work. We could not have done this without our many partners across Pennsylvania offering their many points of view. The evolution of our work over the years, including on-the-ground projects, broader convenings, and in-depth policy analysis and advocacy, has allowed us to work with so many people and institutions across various spectra—from local watershed groups to national and international NGOs, from township supervisors to governors, and from small businesses and entrepreneurs to multinational corporations. Each of these relationships has helped to mold PEC to be what it is today.

Looking forward, we know that there are still many environmental and conservation challenges to tackle. You will see that in this publication. While PEC continues with our wide array of efforts, we are acutely aware of the critical challenge of our changing climate and the urgent actions that must be taken now to forestall the worst of the coming impacts. PEC and its many partners have the knowledge and the tools to act.

Notwithstanding the challenges ahead, PEC continues to be optimistic that Pennsylvania will take actions both to limit its own emissions and to work on the policies, practices, and technologies to achieve carbon neutrality. Indeed, we are hopeful that the first of these steps will be taken during our golden anniversary year.

The following pages are filled with stories of success, challenge, and opportunity. We invite you to join us as we turn our attention to the next 50 years, and we welcome your help in a true partnership to protect and preserve the Pennsylvania environment.

Sincerely,

Carol F. McCabe, Esq.
Chair
Board of Directors

Davitt B. Woodwell, Esq.
President

Board of Directors

The Pennsylvania Environmental Council has been fortunate to benefit from the experience, passion, dedication, and hard work of so many people throughout its 50-year history. Those who have given freely of themselves as members of our board of directors have been faithful stewards of our founding members and provided the moral, operational, and, in many cases, financial support for our work.

Similarly, our staff has always comprised the finest environmental advocacy professionals in Pennsylvania. They have been the living embodiment of PEC's mission in communities large and small throughout the Commonwealth and have made it possible for us to achieve whatever successes we have enjoyed.

We're grateful for their contributions and celebrate their years of service and collective accomplishments. ■

1. Larry D. Silver, Esq.
2. Susan Wilson **3.** Robert B. McKinstry, Jr., Esq. **4.** James Lang **5.** Seth v.d.H. Cooley, Esq.
6. John T. Hines **7.** Carol F. McCabe, Esq. **8.** Tomlinson Fort **9.** Davitt B. Woodwell, Esq.
10. Gary R. Brown, P.E., Q.E.P., C.M.C. **11.** Jolene Chinchilli

Not pictured: David Gallogly, Esq.

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Crawford/Venango County border

PEC's First 50

Davitt B. Woodwell

Committing my thoughts to paper to reflect on PEC's first 50 years leaves me with a feeling of inadequacy. To capture the breadth and magnitude of all that's been accomplished by so many hard-working, passionate, and dedicated people is, indeed, a humbling task.

But I have every confidence in saying that PEC has had a remarkable run in its first half-century, working steadily and steadfastly to do what we believe is necessary to improve and protect Pennsylvania's environmental quality, public lands, communities, and natural resources.

Over the past five decades, how we achieve our mission and goals has grown, adapted, and evolved. PEC began in 1970 ensuring that the nascent world of environmental statutes and regulations was as strong as possible. We continue that work today and are clearly focused on issues around energy and climate while still pursuing solutions to legacy issues from earlier practices.

A major change from the early days of PEC is that we now work not only on policy, but also on projects that make real differences on the ground and either inform our policy work or are informed by them. We work across the Commonwealth from offices in Philadelphia, Pittsburgh, State College, and Luzerne, and often from highways and byways. Over the years, we have also maintained offices in Harrisburg, Meadville, Titusville, Franklin, and Wilkes-Barre. We will undoubtedly continue to apply our resources and expertise wherever and however we can have the greatest impact and will continue to fulfill our mission of building partnerships that protect Pennsylvania's environment and improve the quality of life for all who live, work, and play here.

Our policy work traces its origins back to PEC's earliest days in 1970, when our founding members joined forces in the case of *Pennsylvania Environmental Council v. Bartlett*, which established the right of a nonprofit citizens' group to sue the federal government on environmental matters. From that day forward, PEC has been an active participant in environmental policy in both Harrisburg and Washington, D.C.

And while our policy positions on the countless issues that have come before the General Assembly over the past 50 years may not always have been popular, they have been informed by science, the considered opinions of all stakeholders, and a solemn commitment to the long-term sustainability of Pennsylvania's economy and communities. Throughout our history, we have never "taken sides" based on ideology, but rather we've sought to find common ground on the most intractable environmental problems Pennsylvania has encountered.

Like so many other worthy endeavors, PEC has had its share of success in shaping environmental policy in Pennsylvania, as well as its share of setbacks. And while we would like to change some of the outcomes, we would not—and will not—change our resolve.

PEC strives to lead by example and be the catalyst for community-based stewardship in trail development, illegal dumpsite cleanups, stormwater management, reforestation, clean energy, and more.

Davitt B. Woodwell

Today, we continue to talk, debate, and act on many of the same issues that Pennsylvania faced in 1970. Legacies of past and current extractive industries still tax our natural, regulatory, and fiscal resources.

In "Capitol Ideas," found on page 92, you'll find a very interesting discussion among a roundtable of policy experts who share their views on the environmental issues shaping the debate in Harrisburg in 2020.

Our policy work, in many ways, serves to inform our program work. In small communities and major cities all across Pennsylvania, PEC strives to lead by example and be the catalyst for community-based stewardship in trail development, illegal dumpsite cleanups, stormwater management, reforestation, clean energy, and more. The impact of these programs is evident long after we turn our role over to the community and, in turn, as neighboring communities seek to duplicate and expand those efforts far beyond the scope of our early-stage work.

Today, we continue to talk, debate, and act on many of the same issues that Pennsylvania faced in 1970. Legacies of past and current extractive industries still tax our natural, regulatory, and fiscal resources. Attaining the "fishable, swimmable" requirements of the 1972 Clean Water Act and Pennsylvania's 1937 Clean Streams Law remains elusive for many waterways. We continue to remediate and restore thousands upon thousands of acres of brownfields and mine lands, with many more to go. Furthermore, as is so often the case in Pennsylvania's history, we are in the midst of an extractive "boom" in shale gas production without fully addressing how we will address its environmental legacies, not to mention the hundreds of thousands of abandoned wells left from earlier conventional drilling for oil and gas.

Historically, PEC has never been given to self-promotion or revelry, and after 50 years, we're not about to start. That's not what this book is about. Rather, it's meant as a time capsule—a snapshot of where we are as an environmental community in 2020 within the context of where we've been. Shakespeare wrote, "What's past is prologue," so we invite you to reflect on how we have arrived at this point and what the future may have in store. We've attempted to memorialize the environmental issues of our time in these pages and have invited Nathan Boon of the William Penn Foundation and Aurora Sharrard of the University of Pittsburgh to provide us with their vision for what that future may look like in "The Next 50."

We are also keenly focused on stewardship and supporting the next generation of stewards—bringing them to understand broader environmental and conservation needs through their interest in outdoor recreation, whatever interest they may have.

Our tagline, "conservation through cooperation," while occasionally seen by some as a call to compromise, is really a challenge for all of us to reach higher and to do better. No matter what the issue, there are always multiple points of view, each one as valid as the next, provided they are rooted in legitimate scientific or economic reasoning. It's easy to simply choose one view and embrace it, but far more difficult to accept that many sides can be of merit and equally worthy of serious consideration. After all, it's not my Pennsylvania or yours, but our Pennsylvania.

Finally, none of our work could have been accomplished without the steadfast support of our members and state, federal, and foundation partners who make it possible to keep the lights on. My thanks to them for believing in PEC, all that we have done, and all that we can and will do. ■

Davitt B. Woodwell, Esq.
President
Pennsylvania Environmental Council

Ricketts Glen State Park, Columbia County

The Cradle of Conservation

Ted Lee Eubanks

In 2007, the U.S. Forest Service dedicated the Elkhorn Ranch in North Dakota as the "cradle of conservation." President Theodore Roosevelt lived on the ranch from 1884 to 1887 and solidified his thoughts about conservation there.

The proclamation, although welcome, was a bit presumptuous. Conservation did not begin with Roosevelt, although he certainly became one of its most important champions. The American conservation movement actually began in Pennsylvania and dates to the very establishment of the colony.

Most of the early conservation efforts in the colonies were to protect game species, such as regulations on hunting deer in 1639, the nation's first law protecting wildlife in 1900, and the Migratory Bird Treaty Act in 1916.

Pennsylvania began its forest protection efforts in 1681 when, on July 11, William Penn's Conditions or Concessions gave instructions for laying out a large town on the Delaware River and on how land was to be bought and sold. It included an instruction that one acre of forest be preserved for every five acres of land cleared, and is recorded as Pennsylvania's first conservation law. The instructions also included the first parks or public enclosures laid out in North America for the pleasure and convenience of the people. In 1681, Pennsylvania was covered with a nearly unbroken forest from border to border.

In time, however, Pennsylvania strayed from Penn's directive. By the late 1800s, the border-to-border forests were clear-cut, a cataclysm that led to the rise of some of the Commonwealth's most notable environmental visionaries, such as Joseph Trimble Rothrock, Maurice Goddard, and Gifford Pinchot.

Joseph Trimble Rothrock at Eagle Rock, Pennsylvania, circa 1900

The Cradle of Conservation story is rooted in South Mountain, Pennsylvania, near Gettysburg, although not exclusively. The first state parks were located in South Mountain, and therefore the Goddard story is as relevant in South Mountain as anywhere in the Commonwealth. Mira Lloyd Dock, who became the first woman in Pennsylvania to hold office when named to the Pennsylvania Forest Commission, also contributed to American urban planning and renewal through her work with the City Beautiful movement in Harrisburg. In fact, Dock and J. Horace McFarland were seminal figures in the growth of the national "City Beautiful" movement. McFarland helped found the American Civic Association, and he took the "Harrisburg Plan" on the road to cities all across the United States.

Not only did Rothrock found the original school of forestry at Mont Alto in 1903, he also worked there to address one of the predominant health issues of the age—tuberculosis. A physician by training and inspired by his visits to Colorado, Rothrock had concluded that living in a healthy environment such as mountains and countryside was an effective deterrent to contracting tuberculosis. He argued that Pennsylvania was "dooming a large portion of the State to a barren condition," thwarting efforts at combating the disease. Rothrock's 20-year lecture series at Horticultural Hall in Philadelphia became one of the most powerful for the creation of the Pennsylvania Forestry Association which, in turn, led to the development of over a million acres of state forest reserves.

In 1919, Rothrock wrote, "The thought flashed upon me that I had under my control, as Commissioner of Forestry, 600,000 acres of State land which by right of purchase belonged to the citizens of this State. Why, therefore, should any of them be deprived of a chance for life because he could not go to Colorado?"

So Rothrock established a “camp” on South Mountain where those afflicted with tuberculosis “might come themselves and drink our pure water and inhale without cost the fresh air that belonged to them.”

The interest in the Cradle of Conservation is not only to look back at the past, but to use the past to illuminate a brighter future. Yet one of the most important stories in American conservation history is fading from public view. The challenges facing the Commonwealth now may seem indomitable, but are they any greater than those faced by Dock, McFarland, Pinchot, and Rothrock? As they accepted their challenge, we should welcome ours.

The way forward can be informed by the legacies left for us by these forefathers of Pennsylvania’s environmental heritage. Their duty and fidelity to practical and responsible conservation have been hallmarks of the Pennsylvania Environmental Council (PEC) since its founding and serve as beacons for navigating an uncertain future.

Founded three months before the first Earth Day of 1970, PEC, one of the oldest environmental organizations in Pennsylvania, rode the wave of environmental consciousness and action that swept the nation. PEC’s history closely mirrors the Commonwealth’s environmental history. In a real sense, PEC represents the maturing of the movement given birth over a century ago in Pennsylvania, the Cradle of Conservation. ■

Ted Lee Eubanks is a writer, a photographer, an interpreter, a planner, and the president of Fermata, Inc., in Austin, Texas, where he is engaged in studying and promoting heritage tourism and outdoor recreation as sustainable approaches to community revitalization. Eubanks worked with Pennsylvania DCNR in developing a series of Conservation Landscape Initiatives in Pennsylvania, including the Pennsylvania Wilds.

President Theodore Roosevelt with Gifford Pinchot, 28th governor of Pennsylvania and the “Father of Forestry”

The Cradle of Conservation

Ted Lee Eubanks

While the restoration and protection of Penn's Woods and its wildlife has driven conservation in the Commonwealth, the Pennsylvania heritage is far more diverse. Consider the following historical milestones that illustrate the breadth of the Pennsylvania conservation heritage:

1700s

1728—John Bartram built the first botanical garden in America on the bank of the Schuylkill River in Philadelphia. Efforts like these began the first serious study of plants for agricultural, ornamental, and scientific purposes.

1739—Benjamin Franklin and neighbors petitioned the Pennsylvania Assembly to stop dumping waste and to remove tanneries from Philadelphia's commercial district, citing foul smells, lower property values, and disease.

1789—Franklin, in a widely publicized codicil to his will, left money to build a fresh water pipeline to Philadelphia because of his awareness of the link between bad water and disease.

1794—The first forestry law was passed, establishing fines of $20–$50 ($460–$1,150 in 2020 USD) for willfully setting woodlands on fire.

1800s

1803—John J. Audubon, the famous naturalist and artist, was sent to manage his sea captain father's estate at Mill Grove, near Philadelphia. It was here that Audubon first got his inspiration as a painter of wildlife while exploring the surrounding forests. He conducted the first known bird-banding experiments by tying silver thread around the legs of young phoebes to observe their migration patterns.

1812—The Academy of Natural Sciences of Philadelphia was founded to undertake research and public education that focuses on the environment and its diverse species. Their mission was to expand knowledge of nature through discovery and to inspire stewardship of the environment.

1839—Dr. Joseph Trimble Rothrock was born in McVeytown, Pennsylvania, and became the "Father of Forestry," as well as a medical doctor.

1853—Mira Lloyd Dock was born in Harrisburg and became a botanist, forester, and preservationist.

1859—J. Horace McFarland (1877–1948) was born in McAlisterville, Pennsylvania, and became the "Father of the National Park Service." He was a printer, preservationist, civic activist, photographer, author, and rosarian.

1865—Gifford Pinchot (1865–1964) was born on August 11 and became America's first trained forester, first to use the term "conservationist," and governor of Pennsylvania.

1867—The Pennsylvania General Assembly established the Fairmount Park Commission in Philadelphia for the purchase and conservation of land for recreational purposes.

1888—The Pennsylvania Forestry Association was established as the first organization of its kind in the United States to promote conservation practices in the forestry industry.

1897—The first state law was passed authorizing state purchase of woodlands for forest preserves.

1904—The Pennsylvania Fish Commission distributed 90,900 frogs and more than 10.2 million chain pickerel to streams and rivers—the first major fish stocking in the United States.

1906—**Howard Clinton Zahniser** was born in Franklin and became an editor, writer, and broadcaster on wildlife and conservation issues and is known as the "Father of the Wilderness Act of 1964."

1906—The first white-tailed deer were stocked in Pennsylvania. More than 1,200 were reintroduced to the state by 1926.

1907—**Rachel Carson**, born in Springdale, Pennsylvania, was an ecologist and the author of *Silent Spring*, published in 1962 and warning of the impact pesticides have on the environment and helping to start the modern environmental movement.

1912—**Maurice K. Goddard** was born September 14, 1912, and became a forester and the first secretary of a state agency devoted to protecting the environment.

1912—**Emile Benton MacKaye**, founder of the Appalachian Trail, joined the new U.S. Forest Service under Gifford Pinchot in 1905. MacKaye later recalled a meeting of the Society of American Foresters at Pinchot's home in "about 1912" to which he read a new paper by his friend Allen Chamberlain of AMC. "[It] was, I think, the first dissertation on long-distance footways," he wrote.

1913—**Rocky Mountain Elk** were first introduced to Pennsylvania—50 from Yellowstone National Park and 22 from a private preserve in Pike County. In 1915, another 95 were purchased from Yellowstone, and, a few years later, about a dozen elk were donated to the agency by an Altoona businessman.

Soon thereafter, another ten were purchased from Wind Cave Game Preserve in South Dakota. Today, Pennsylvania is home to approximately 1,000 elk on a range of about 1,500 square miles.

1921—The **Appalachian National Scenic Trail** construction began with volunteers and was completed in 1937. It was the first trail to be designed in the National Trail System in 1968. It's a 2,158-mile (3,480.6-km) footpath along the ridge crests and across the major valleys of the Appalachian Mountains, including Pennsylvania, from Katahdin in the central Maine wilderness to Springer Mountain in a designated wilderness area in north Georgia.

1923—The **Allegheny National Forest** was established, covering 512,000 acres, and remains the only national forest in Pennsylvania.

1927—The 6,055-acre **Cook Forest** became the first land purchased as a state park to protect a natural landmark.

1934—**Hawk Mountain Sanctuary** was established as the world's first refuge devoted to the protection of birds of prey.

1939—The **Pennsylvania Resources Council** was established. It's the oldest citizen environmental action group in the Commonwealth and the originator of the Litterbug awareness campaign.

1947—State and federal government agencies join forces to dredge coal from the bottom of the Schuylkill River, "the first major environmental cleanup effort undertaken by a government agency in the United States." At the time, it was also the largest operation of its kind in the world.

1971—The **Environmental Rights Amendment** to the Pennsylvania Constitution was approved by the voters. The amendment guarantees all citizens the right to clean air and pure water.

“We had to do something”

Born Out of a Sense of Duty, Pennsylvania Environmental Council Turns 50

To many of a certain age, it may be difficult to imagine a time when the world seemed indifferent to the ravages of litter, air and water pollution, chemical waste, and other legacy impacts of the modern industrial age. ■ But there was. ■ In Cleveland, Ohio, the Cuyahoga River caught fire—not just once, but several times. In Love Canal, New York, groundwater contamination from a chemical waste dump forced the evacuation of 800 families from their homes. Closer to home, parts of the lower Delaware River were so badly polluted as to be considered dead, devoid of most fish and wildlife. Throughout northern Pennsylvania, the ravages of mining had left large desolate areas that would take generations to heal. And in Pittsburgh, air pollution from steel manufacturing blocked the sun at midday, causing streetlights to operate around the clock. ■

Photo: Nicholas A. Tonelli

"We Had to Do Something"

Born Out of a Sense of Duty, PEC Turns 50

"In the late 1960s, there was a growing concern that Pennsylvania's environmental degradation would become irreversible," recalls Eleanor Webster Winsor, one of the original founders of the Pennsylvania Environmental Council.

"Pennsylvania had seen a lot of major environmental problems and we realized that we had to do something. Science and technology could solve many of these problems if people understood the importance of acting responsibly. What was missing was an organization that could speak for the environment in the political arena and help state government apply existing knowledge to the problems we faced. We needed laws and regulations that were based on emerging scientific and technological knowledge.

"Pennsylvania's environment had historically been controlled by large, polluting industries, which focused on immediate profits without accounting for the long-term impact of their activities on the communities in which they operated. As people throughout the United States recognized that things had to change, Pennsylvania was in the vanguard of efforts to transform the way people perceived and treated the environment. Activists realized that the place to make the greatest impact was to speak truth in Harrisburg."

By the late 1960s, the environmental movement was gaining traction and achieving critical mass in the United States.

"In the late 1960s, there was a growing concern that Pennsylvania's environmental degradation would become irreversible."

At the national level, Rachel Carson's *Silent Spring* and Paul Ehrlich's *The Population Bomb* thrust awareness of environmental science into public consciousness. And as the U.S. manned space flight program brought back the first pictures of Earth from space, Americans—perhaps for the first time—began to grasp the fragile and finite nature of their ecosystem.

"The protestations of conservationists have accomplished too little for too long," according to a 1970 PEC briefing document, written after considerable debate. "Conservationists, whether individuals or organizations, have lacked the facts to speak effectively, the communication with others to act cohesively, and a medium to present responsibly and consistently their viewpoints to the legislators and regulators...who determine the quality of Pennsylvania's environment. Consequently, their efforts to affect environmental policy at the state level have met with minimal success.

"The Pennsylvania Environmental Council...has concentrated on developing and pushing a few environmental matters, rather than diluting its effectiveness by speaking frequently without sufficient expertise to support its positions."

Minister Creek, Allegheny National Forest, Forest County

The Times They Were A-Changing

Things were beginning to change in Pennsylvania. In 1967, Franklin Kury, representing Montour and Northumberland Counties, became one of the new faces in the Pennsylvania General Assembly. "From 1965 to about 1972," recalls Kury, "Pennsylvania went through an environmental revolution. The people of Pennsylvania woke up to the fact that they'd been badly exploited by the coal industry, the steel industry, and the railroad industry. And they were determined."

In the summer of 1969, a small handful of concerned Pennsylvanians decided that they had seen enough. Thomas Dolan IV of Philadelphia; Curtis Wright, Esq. of Ambler; Dr. Colson Blakeslee of Dubois; Robert Kolek, Josh Whetzel, and Robert Broughton of Pittsburgh; Eleanor Webster of Philadelphia; and Curtin Winsor of Ardmore conceived a statewide environmental "coordinating organization" to which individuals, other organizations, government, and business and industry could turn for information on environmental issues. Webster and Whetzel had worked together at the Conservation Foundation in Washington and were able to bring a national perspective to the discussions.

Their approach was to bring conservationists, community leaders, business interests, agriculture, lawyers, and local government together to work with state government to restore and enhance environmental quality. Unlike other environmental organizations in the state, however, the "Pennsylvania Environmental Coordinating Council" was incorporated with the ability to lobby the state legislature and administration. PEC would maintain its focused approach from then until the late 1980s when it was transformed from a lobby to an environmental organization with broader objectives.

It's likely that few of those present at that first meeting could have imagined the profound and lasting impact their upstart organization would have over the subsequent five decades.

It was a humble beginning, but not without an impact. In an article years later, Mr. Winsor recalled that "...in the fall of 1969, we had 100 members, no office, no staff, and a debt in the amount of $2,500. That was the lawyer's fee for the case of *Pennsylvania Environmental Council v. Bartlett*, which established the right of a nonprofit citizens' group to sue the federal government on a matter of environmental concern," a landmark decision in the history of U.S. environmental law.

And with that very first case, the stage was set for a new chapter in Pennsylvania's history of conservation and stewardship. After that case, PEC moved away from litigation, realizing that its limited resources needed to be concentrated on getting legislation passed.

Articles of incorporation were completed in January 1970, and that April, with just $200 in the bank, PEC opened an office on South 16th Street in Philadelphia, just days before the first Earth Day and more than six months before the establishment of the U.S. Environmental Protection Agency.

Curtis Wright was selected to be PEC's first president, albeit only briefly. He resigned due to illness after only a few months as president and was succeeded by fellow co-founder Curtin Winsor.

PEC co-founder and former president Curtin Winsor

A Constitutional Amendment for the Environment

Rep. Kury, in just his second term in the state house, wrote and fought for an amendment to the state constitution requiring the people's right to clean air and water, a law now known as Pennsylvania's Environmental Rights Amendment.

"PEC and I worked together," recalls Kury. "PEC, with a few other organizations, really told the public why this should be passed. So when we went to the ballot in 1971, we got a lot of help. Curt Winsor and PEC helped us. And the amendment passed the public referendum by a margin of four to one.

"PEC did a good job of getting people together to build consensus on what we needed to do to protect the environment," he recalls.

But as its influence and reputation in Harrisburg grew, PEC remained steadfast to environmental solutions based on science, incorporating the long-term economic impacts of short-term actions and the realities of the marketplace above politics. In all its actions, PEC sought to translate science and the law into terms people could understand and apply to real-life situations to improve the quality of the environment for all. "Really, in those first 10 years, we were nonpartisan," said Winsor. "We could walk into any office in Harrisburg and people might disagree with us, but we were respected."

In 1971, Winsor, then PEC's vice president, wrote a report entitled "A New Direction for the Future: A Department of Environmental Resources for the Commonwealth of Pennsylvania." This report served as a vision statement for the newly formed department, the forerunner of today's Department of Environmental Protection. The department's first secretary was Maurice K. "Doc" Goddard, who was confirmed after a coalition of 20 environmental groups led by PEC worked to bring about his confirmation.

In 1974, Eleanor Webster, now Winsor, left her environmental consulting firm to become the first full-time paid executive director.

As a lobby, money was always a problem. In the late 1970s, PEC formed a research arm, the Pennsylvania Environmental Research Foundation (PERF). Contributions to it were tax deductible, and it conducted the research necessary to support PEC's lobbying positions. Tom Dolan left his position as executive director of the Wissahickon Valley Watershed Association to become PERF's executive director. Once the major environmental laws and regulations were in place in the mid-1980s, it was time to move on to a new format for the organization. With the departures of Eleanor Winsor and Tom Dolan, PEC and PERF were merged into a single entity.

Governor Milton Shapp (front center) signs the Pennsylvania Flood Plain Management Act and the Storm Water Management Act into law in 1978 as State Rep. Franklin Kury (front left) and PEC President Curt Winsor (back right) look on.

As a result of PEC's work, Pennsylvania governor Dick Thornburgh called hazardous waste "the single most serious environmental problem we face," and praised PEC for "playing an important role in bringing together leaders of environmental groups, government, and industry to find solutions to common environmental problems."

Leadership Credentials

Each year, PEC held an annual environmental conference in different locations across Pennsylvania. Considered the preeminent forum on environmental policy in the Commonwealth, these conferences attracted the participation of governors, state and federal regulators, and elected leaders. The objective was to share technical and scientific information in ways that led to better implementation and enforcement of environmental protection. Covering a wide range of topics and attended by hundreds of government, business, academic, and nonprofit officials, the PEC environmental conferences became one of the most critical forums in Pennsylvania's conservation conversation.

PEC began its second decade with its 10th annual environmental conference on the topic of "Hazardous Waste: Everybody's Worry." Hazardous waste had been largely ignored in Pennsylvania until PEC identified it as a major problem. As a result of PEC's work, Pennsylvania governor Dick Thornburgh called hazardous waste "the single most serious environmental problem we face," and praised PEC for "playing an important role in bringing together leaders of environmental groups, government, and industry to find solutions to common environmental problems."

Susan Montgomery, a Pittsburgh native who moved to Philadelphia, became PEC's third president. Curtin Winsor became chairman of the board.

After 15 years, PEC was growing and in need of new leadership. Longtime board member Joe Manko, a Philadelphia attorney, recalls convincing Joanne Denworth, a former judge on the Pennsylvania Environmental Hearing Board, to leave her law practice and assume the duties of president and executive director at PEC.

"I met Joanne during a case where she was the trustee of a Superfund site," says Mr. Manko, "and convinced her that she should become the new executive director.

"Under Joanne's leadership, we were able to get all kinds of foundation grants as a result of which our staff grew from two or three people to probably 20 people, and we took on projects. She really grew what was initially a very fledgling operation."

Denworth would lead PEC for the next 13 years and presided over some of its first major initiatives.

She expanded PEC's role to incorporate projects designed to demonstrate elements of the environmental policies PEC was advocating in Harrisburg, including water quality and land use. Her successors point to her tenure as president as the time when PEC stepped center stage and became a real force in Harrisburg and around the Commonwealth.

"I give Joanne Denworth a lot of credit for hiring critical staff people who had the ability to really build PEC's knowledge base," says Brian Hill, who Denworth hired to open and run PEC's Western Pennsylvania office, and who would later become PEC's sixth president.

Andrew McElwaine, Denworth's immediate successor as president, says she raised PEC's credibility as an established advocacy organization.

"Joanne professionalized PEC," says Mr. McElwaine. "She organized it thematically in a coherent way and really created a more meaningful brand... creating an organization, getting the regional offices organized, and getting them run by capable people. I would give her all that credit."

Under Ms. Denworth's leadership, PEC initiated a number of innovative programs that addressed critical environmental priorities and opportunities for Pennsylvania. But initially, it was PEC's work in the policy arena that established its credentials as a powerful and important voice in the environmental community.

Adapting to Changing Times

The 1990s ushered in a new era of environmental policymaking, marked by the creation of new government agencies, the Growing Greener program, and landmark legislation on brownfield development.

Growing Greener, a comprehensive portfolio of programs in environmental protection and stewardship, was a major legislative initiative created by Governor Tom Ridge and the General Assembly. Twenty-five years later, Growing Greener remains the single largest investment of state funds in Pennsylvania's history to address critical environmental concerns of the 21st century. PEC was a champion of this legislation and fought hard to secure its passage in the General Assembly.

Signed into law on Dec. 15, 1999, and reauthorized in June 2002, Growing Greener I and II represented a $1.5 billion investment in Pennsylvania's natural resources, and PEC played a major role in putting those investments to work around the state.

"It was an all-hands-on-deck effort," recalls Andrew McElwaine, PEC president from 1999 to 2005. "We had only seven weeks until the primary election to get it done. We had no budget for it, no campaign apparatus, nothing, so we had to build that airplane while we were flying it, but it was a wonderful partnership.

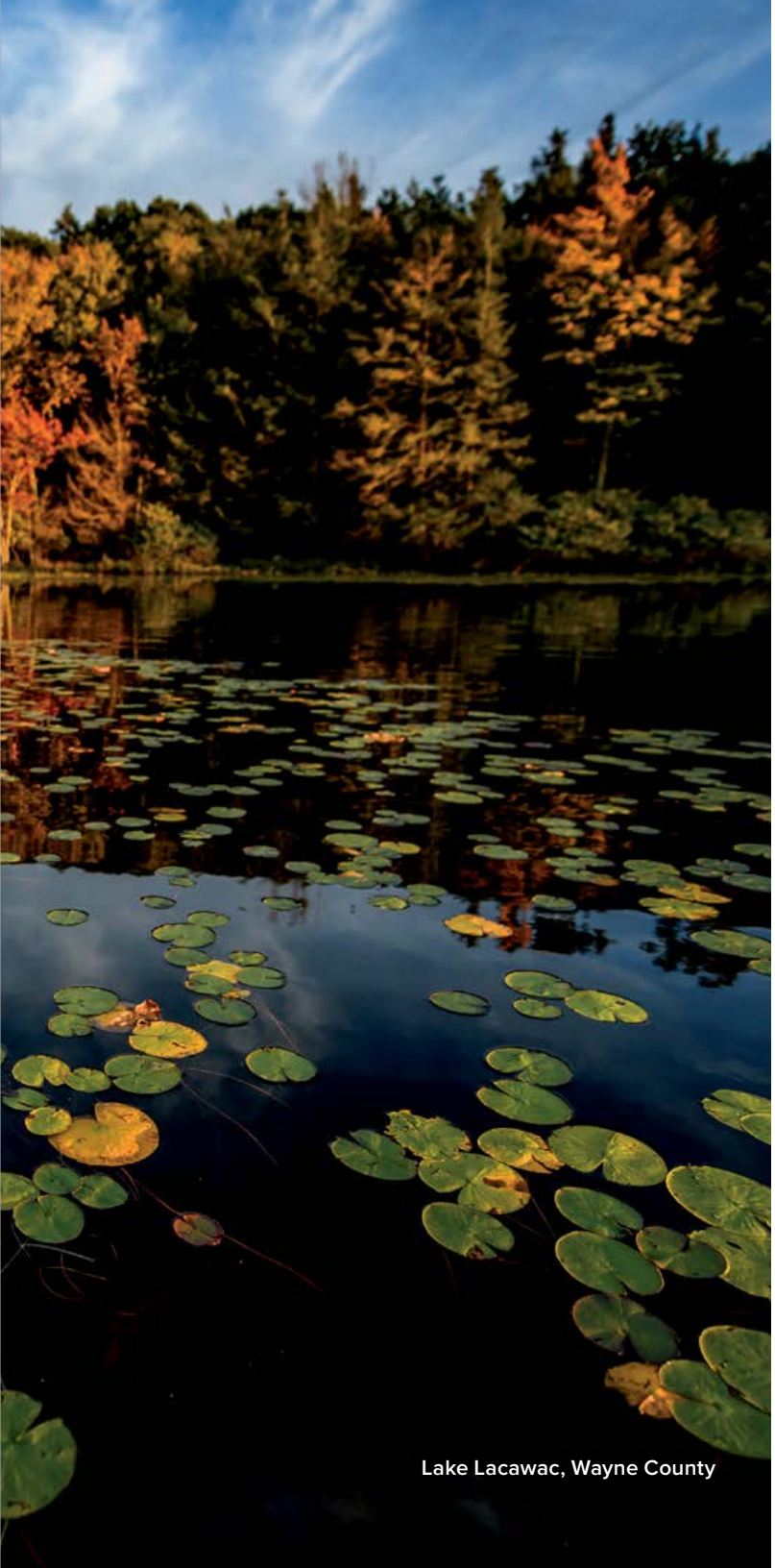
"Several hundred farms that were in the path of development were preserved. Thousands of acres of natural lands were preserved, and an immense amount of nutrient pollution taken out of the rivers and streams. A lot of people got helped."

The early '90s were also marked by passage of the Pennsylvania Land Recycling Act, the first legislative initiative under Gov. Tom Ridge and a major achievement for both Pennsylvania and PEC, who fought hard to build support and gain passage of the bill.

"There was a lot of work that went into that," says Brian Hill, who was a PEC vice president at the time and PEC's point person on Senate Bill 1. "It became a number one priority for a number of people in the state Senate and House, as well as for Governor Ridge.

"PEC's role was critical," he adds. "I was involved, and so was Joanne, in testifying on those issues."

"Several hundred farms that were in the path of development were preserved. Thousands of acres of natural lands were preserved, and an immense amount of nutrient pollution taken out of the rivers and streams. We really put some state dollars to work doing some good things. A lot of people got helped."



Lake Lacawac, Wayne County

The Challenges of a New Millennium

The turn of a new century brought with it growing concern within the scientific community over the man-made impacts of carbon emissions on climate. In 2000, Pennsylvania produced 1% of the world's total greenhouse gas emissions, ranking it fourth in the U.S. and among the top 25 carbon-emitting nations in the world. What's more, Pennsylvania's carbon emissions were projected to grow by roughly 10% per decade. So it was no surprise that the Keystone State was readily seen as a place where carbon reductions could make a meaningful impact.

PEC's 2007 report, "Pennsylvania Climate Change Roadmap," was one of the very first policy documents addressing this issue specifically related to Pennsylvania.

The Climate Action Plan called for a series of measures aimed at reducing Pennsylvania's greenhouse gas emissions to 25% below 2000 levels by the year 2025 and an 80% reduction from current levels by 2050. This plan set out bold goals for all sectors to begin the process of "decarbonizing" Pennsylvania's economy, an initiative that would carry forward through the coming decade and to which PEC remains committed today.

What were once outlier discussions about low-carbon fuels became more widespread and pervasive as PEC entered its fifth decade. Green energy alternative resources, such as wind turbines, began to populate the Appalachian ridges that bisect Pennsylvania. But the advent of a new form of underground drilling put a previously unattainable gas reserve within reach. The Marcellus Shale formation, a vast natural gas reserve stretching from western Virginia northeast to Marcellus, New York, potentially contained enough gas to meet U.S. demand for the next 40–50 years or more.

Recognizing the coming environmental impact of a burgeoning natural gas industry, PEC once again convened representatives from industry, government, and the environmental community at a conference to explore the potential impact and identify measures for effectively regulating the new unconventional gas industry.

Recognizing the coming environmental impact of a burgeoning natural gas industry, PEC once again convened representatives from industry, government, and the environmental community at a conference to explore the potential impact and identify measures for effectively regulating the new unconventional gas industry.

The result of PEC's 2010 study was a comprehensive report, "Developing the Marcellus Shale," which included 15 specific recommendations for lawmakers to consider, most of which were adopted by the Governor's Marcellus Shale Commission, which was referred to the General Assembly for consideration as legislation.

PEC 2020

So has the upstart group of concerned Pennsylvanians that convened in 1970 lived up to the expectation of its founders?

What did they accomplish? And what has been PEC's greatest contribution to environmental protection and stewardship in Pennsylvania?

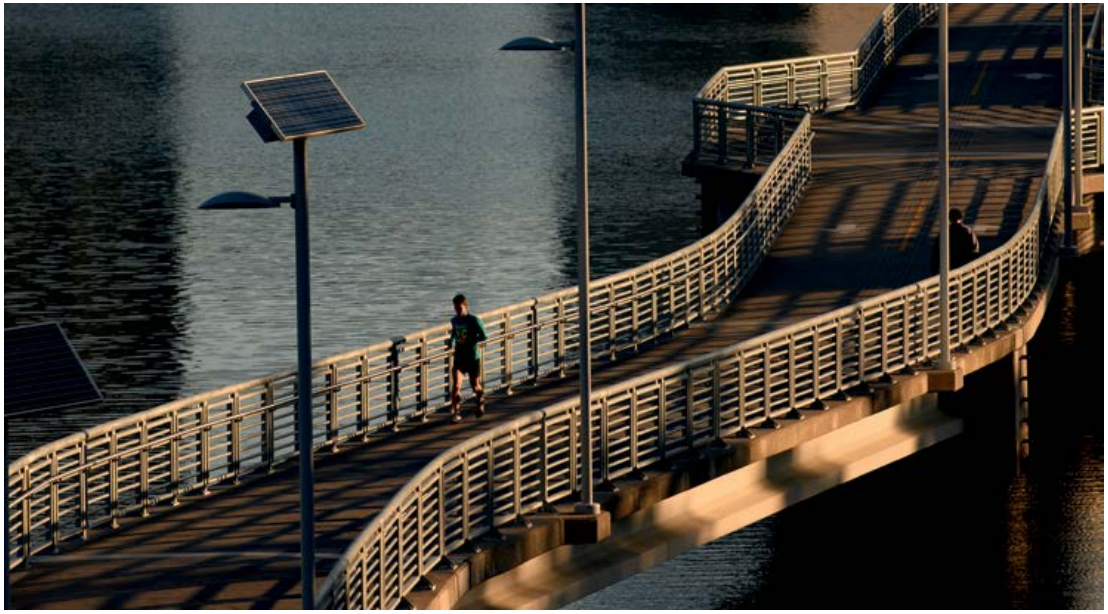
"We wanted a statewide activist organization," recalls founder Eleanor Winsor. "And we wanted an organization that was not a 501(c)(3), that was able to speak out and speak up without fear."

She says it was the founders' desire to be honest brokers of ideas and to be known for respecting other points of view as the bedrock for advocacy, a considerably different approach to the stridency of most environmental groups in 1970.

"People were willing to sit down and be pretty respectful with us," she adds. "I think the model really came out of a belief in human decency and in scientific integrity."

On that point, there's universal agreement among her successors that has stood the test of time.

"The concept of civility underlies all of PEC's activities for the past 50 years," adds Paul King, a former PEC president and board chairman. "I think it was a recognition that goes back to the Winsors that there were problems to be solved in a rational, scientific way and not hammered at."



Schuylkill River Trail, Philadelphia

"I think you do have to go back to that first 10 to 15 years, before I was president, to the Winsors and others who first breathed life into PEC as a different kind of organization. And we've been able to keep that spirit through the selection of good people and good board members."

"I think that we took the conservation movement and brought it into the 21st century," says Patrick Starr, executive vice president of PEC. "We charted a course that was practical, based upon an understanding of Pennsylvania and it's unique character... seeking always what it is that we can attain that will protect and restore Pennsylvania's environment in circumstances that are really complicated."

Davitt Woodwell, who first joined PEC in 1991 and has served as its president since 2014, builds on Starr's thoughts with the perspective of his legal training and time spent outdoors. Like Starr, he has been with PEC for more than half of its 50-year history. He points to PEC's role in engaging a variety of stakeholders, including governors, public officials, government agencies, small business owners, and multi-national advocacy groups to address the issues facing Pennsylvania.

"A critical tenet of our work is that we have the agility to work on what may seem like unconnected issues—including carbon pricing, trail development, stormwater control, reforestation,

"And as you ride along the trails, the urban trails, the rural trails, and see people reading those signs, a connection is being made. It's a way to get people to start thinking. The goal isn't to have them become members, but it's to really get them to think differently about Pennsylvania."

and decarbonizing natural gas—and weave them together through the lens of overall stewardship of our Commonwealth," he says.

"Whether we are pushing for specific language in a bill in the General Assembly or showing a high school student how to plant a white pine seedling on formerly mined land, it's all about stewarding the environmental and conservation future of Pennsylvania. It's about building interest in environmental issues and working to ensure an ongoing legacy of citizens committed to making sure that the issues we care about receive a fair and informed hearing.

"We are not confrontational," he adds, "but we want to make sure that there is an environmentally literate and engaged group of Pennsylvanians always ready to have the hard discussions about balancing interests and protecting the values of Penn's Woods." ■

Cook Forest State Park

50 WAYS PEC HAS MADE AN IMPACT

1 **1971**—PEC Vice President Eleanor Webster wrote a report entitled, "A New Direction for the Future: A Department of Environmental Resources for the Commonwealth of Pennsylvania." This report served as a vision statement for the newly formed department, the forerunner of today's Department of Environmental Protection.

PEC President Curt Winsor and Maurice K. Goddard

2 ▲ **1971**—PEC President Curt Winsor worked closely with Pennsylvania Rep. Franklin Kury in supporting passage of an amendment to the Pennsylvania constitution (Article I, Section 27) known as the Environmental Rights Amendment, which states: "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment... As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people." PEC organized a coalition of 65 environmental organizations in support of the amendment.

3 **1972**—PEC was part of a coalition of 65 environmental organizations that helped secure passage of House Bill 1333, amendments to the Air Pollution Act, which gave Pennsylvania one of the strongest air pollution regulations in the U.S.

Pollution from the Jones & Laughlin Steel Corporation plant at Aliquippa

4 **1973**—The Environmental Advisory Council Network was created to be a peer-to-peer technical assistance program to aid municipalities in incorporating environmental principles into municipal land use decision-making and services. Nearly 100 EACs were established, and many played pivotal roles in establishing recycling programs, open space initiatives, and smart land use permits. A signature program of PEC in the 1990s, the EAC Network today is administered by the Pennsylvania Land Trust Association.

5 **1975**—PEC and others successfully opposed construction of the Tock Island Dam on the Delaware River with the Delaware River Basin Commission voting that better and more economical alternatives existed.

6 **1978**—PEC pioneered the Scenic River designation, obtaining authorizing legislation in 1972, and undertook a study of the Schuylkill River that explored its natural and historic value. The Schuylkill River was designated as scenic in November 1978 by act of the General Assembly. ▼

Schuylkill River

1980–1989

7 **1984**—PEC was a major advocate for the passage of Senate Bill 402, the Oil and Gas Act, marking an important victory in the long struggle carried on by PEC and others for responsible oil and gas legislation.

▲ **1984**—PEC was also a major advocate for the passage of Senate Bill 201, the Pennsylvania Safe Drinking Water Act, the highest priority of PEC's legislative agenda for the 1983–84 session. Gov. Dick Thornburgh signed the Act into law on May 1, 1984.

9 **1987**—PEC advocated for and the voters of Pennsylvania passed a referendum allowing a $100 million bond issue to preserve farmland.

10 **1987**—Congress created the National Estuary Program and designated the Delaware Estuary, including the entire Schuylkill River watershed. In the early '90s, PEC participated in the creation of the first Comprehensive Conservation Management Plan, producing a newsletter for the entire three-state region and coordinating public education and stakeholder meetings.

12 **1992**—The GreenSpace Alliance was an ambitious network of Philadelphia-area land trusts and watershed groups convened by PEC to promote investment in open space conservation. The result was detailed mapping of protected lands, tens of millions of dollars expended on open space preservation, state legislation authorizing dedicated municipal open space funding, dozens of municipal funding ballot initiatives, and a comprehensive analysis of the Economic Benefits of Open Space that still resounds today.

13 **1993**—PEC advocated for passage of the Keystone Recreation, Park and Conservation Fund, which won overwhelming bipartisan support both in the legislature and with the public. Key 93 provided funding through a $50 million bond for deferred maintenance for state park and historic resources managed by the Commonwealth. ▼

14 **1993**—PEC President Joanne Denworth authored *Guiding Growth*, a handbook for municipalities. This resource helped to establish PEC as a leader in land use planning and led to the creation of 10,000 Friends of Pennsylvania, a statewide alliance of organizations and individuals dedicated to building and protecting great communities across Pennsylvania.

PEC president Joanne Denworth with Sen. John Heinz in 1989

15

▲ **1993**—PEC and its corporate partners, Duquesne Light Company and later, Dominion, sponsored the Western Pennsylvania Environmental Awards. Since its inception, this program has raised public awareness of local conservation and environmental stewardship projects and contributed approximately $750,000 specifically for nonprofit environmental projects in communities throughout the region. PEC also hosts the annual Governor's Awards for Environmental Excellence in partnership with the Pennsylvania Department of Environmental Protection, as well as the Environmental Partnership Awards Dinner each year.

16 **1995**—PEC was a driving force behind legislation and enactment of Act 2, the Pennsylvania Land Recycling and Environmental Remediation Standards Act that allowed developers to remediate brownfield properties based on one of three cleanup standards, and to obtain a release of liability. This law encouraged the voluntary cleanup and reuse of contaminated commercial and industrial sites and had the effect of preserving undeveloped farmland, forests, and open areas for future generations. That same year, the U.S. Environmental Protection Agency created a similar program.

17 **1995**—PEC launched a statewide watershed protection program and, in cooperation with the Western Pennsylvania Conservancy and Allegheny College, began a stream restoration and education program called the Allegheny Watershed Network to raise community awareness and stewardship for French Creek in northwestern Pennsylvania, one of the most ecologically significant streams in the United States.

18 **1996**—PEC worked with the newly formed Department of Conservation and Natural Resources to create the Pennsylvania Greenways Partnership.

19 **1997**—In both 1997 and 2006, PEC helped lead the charge in the reauthorization of the Abandoned Mine Land Trust Fund, which was created to provide funding to states impacted by past (pre-federal regulation) mining practices. Pennsylvania, on both a cost and an extent basis, had one of the largest abandoned mine land / acid mine drainage problems in the country. The Fund provided billions of dollars to Pennsylvania for remediation, bringing dead streams back to life and restoring abandoned mine lands.

20 **1998**—PEC helped drive the planning and implementation of greenways, corridors of connected natural resources protected by multiple owners, including municipalities, the state, and private owners to facilitate recreation, protect water quality, and provide critical habitat. *Creating Connections*, a handbook created by PEC in 1998 to guide greenway protection, informed PEC's large trail portfolio.

21

Photo: The Tom Ridge Archives, Mercyhurst College

▲ **1999**—PEC and other organizations advocated for the creation of the Growing Greener Fund, providing $650 million over five years to fund conservation and environmental protection projects from the creation of trails and greenways to community parks and wildlife habitat protection.

22 **2000**—When the Pennsylvania Department of Conservation and Natural Resources created the River Conservation Plan program in the 1990s, PEC saw a way to advance corridor planning for greenways, open space protection, and clean water projects such as riparian buffers. PEC partnered with and created River Conservation Plans for the Chester-Ridley-Crum watersheds, as well as for the Middle Allegheny, the Upper Perkiomen, and others. These plans identified projects eligible for funding by the state.

23 **2000**—PEC founded and established the Tookany/Tacony-Frankford Watershed Partnership, a respected, creative, community-based watershed organization that works with diverse communities and partners with PEC in multiple ways. TTF was created from a hand-picked advisory group, which created articles of incorporation and supported the organization's early work.

24 **2002**—In the very early days of the Growing Greener program, PEC responded to a need in the community by collaborating with several state agencies and community partners to form the Wyoming Valley Watershed Coalition, which led to creation of Wyoming Valley Riverfest, Wyoming Valley Wellness Trails Partnership, and numerous river and stream cleanups with the help of hundreds of community and industry volunteers.

25 **2003**—The Pennsylvania Department of Environmental Protection announced a new permit under the Clean Water Act that held "urbanized" municipalities accountable for reducing pollution due to their stormwater collection systems and facilities. This new Municipal Separate Stormwater Sewer System (MS4) permit at first confounded many municipalities, so PEC identified and disseminated best practices for community education, infrastructure maintenance, and good housekeeping to municipal facilities.

27 **2004**—When the Society of Environmental Journalists announced that Pittsburgh would host their annual conference, PEC saw an opportunity to tell the story of Pittsburgh's environmental transformation from its industrial past. An interactive website, pittsburghgreenstory.org, was created to provide SEJ members with a detailed history of "the Smoky City," the people who were instrumental in addressing the problem, and evidence of the progress that had been achieved.

▲ **2003**—Starting with some of the first Rivers Conservation Plans on the Susquehanna River and its tributaries in the Commonwealth during the early days of the PEC office in northeastern Pennsylvania, PEC continued on with community partners to create several Rivers Conservation Plans for the North Branch of the Susquehanna and its tributaries. The plans spurred conservation and recreation projects along the North Branch corridor.

28 **2004**—The Lackawanna and Luzerne Counties Open Space, Greenways & Outdoor Recreation Master Plan, completed in April 2004, was the catalyst for conservation of thousands of acres of priority watershed lands in both counties and provided a framework for collaboration on conservation and recreation projects for the two counties that continues to this day.

29 **2005**—PEC assisted the Pennsylvania Department of Conservation and Natural Resources in creation of the Conservation Landscape Initiatives program. Today, PEC oversees the Landscapes in the Poconos and in the Laurel Highlands, and is working with DCNR toward the establishment of a third Landscape in western Pennsylvania.

30 **2005**—PEC's support of Growing Greener II helped to secure voter passage of a $625 million bond issue to protect Pennsylvania farms, preserve natural areas and open spaces, and revitalize communities across the state.

31 **2006**—An outgrowth of PEC's greenways and brownfields work was the North Delaware Greenway Master Plan for an eight-mile corridor of neglected postindustrial sites, neighborhoods, and parks. The upshot was the formation of the Delaware River City Corporation (now Riverfront North Partnership), new parks, and approximately eight miles of new trails.

32 **2007**—PEC released its Pennsylvania Climate Change Roadmap, an inventory of the state's greenhouse gas emissions and a strategy for reduction. The inventory found that Pennsylvania is responsible for 1% of the world's greenhouse gas emissions, and the Commonwealth's carbon output was forecasted to increase by 10% each decade if no changes were made. In response to these findings, PEC convened stakeholders from all sectors, including business, energy-generation agriculture, communities, and environmental organizations to develop a set of 38 recommended actions for reducing the state's impact on climate change, growing a clean energy economy, and attracting new businesses.

▲ **2007**—PEC's illegal dumpsite cleanup program launched and has since become the benchmark for how to conduct a successful cleanup. This success led to the creation of Keep Northeastern Pennsylvania Beautiful, one of more than 1,000 nationwide affiliates of Keep America Beautiful.

▲ **2008**—PEC released Pennsylvania's first climate action plan, calling for a 15% reduction in carbon emissions by 2015, and successfully advocating for a requirement that the state update the plan periodically.

2008—As the statewide coordinator for the Pennsylvania Water Trails Program, PEC nominated and managed the Tidal Delaware Water Trail from Morrisville to Marcus Hook. This tidal river is used heavily by motorboats, has excellent fishing resources, and is increasingly a destination for recreational paddlers. PEC created a beautiful and comprehensive web resource of access sites and points of interest, which is now maintained by the Seaport Museum. ▼

36 **2008**—Ontario, Quebec, and the eight Great Lakes states of the U.S. entered into an agreement to protect the water quality and quantity of the five Great Lakes—which represent approximately 20% of the world's freshwater and are a tremendous economic, environmental, and community asset for those eight states. PEC was at the forefront of drafting legislation and approval in Pennsylvania and convened a stakeholder group to build bipartisan and public–private support for the agreement.

37 **2009**—PEC helped lead the creation of Lift Johnstown, a dynamic partnership working to implement plans to "re-invent" Johnstown as a vibrant small city. This program has been instrumental in facilitating projects that are reinventing Johnstown as a destination for outdoor recreation in south-central Pennsylvania. Since its inception, Lift Johnstown has helped to bring the September 11th National Memorial Trail and the Pennsylvania Main Line Canal Greenway through Johnstown, built two acclaimed mountain-bike trails, and rebuilt Stonycreek Whitewater Park, Pennsylvania's first man-made rapids.

▲ **2009**—PEC helped to secure funding under the Transportation Investment Generating Economic Recovery (TIGER) program for the design and development of the Circuit Trails in southeastern Pennsylvania. Since that time, PEC, the William Penn Foundation, the Delaware Valley Regional Planning Commission, and local trail groups in southeastern Pennsylvania, along with the City of Philadelphia and others, have grown the Circuit into 800 miles of connected trail systems throughout the greater Philadelphia area, linking the downtown area with suburban communities in each direction. Though not yet 50% complete, the Circuit already includes over 300 miles of trails that have rapidly emerged as recreational and commuting corridors.

▲ **2009**—In an effort to address the problem of combined sewer overflows (CSOs) in the Pittsburgh sewershed, PEC helped to create the Three Rivers Rain Garden Alliance, a collaborative effort of nonprofit organizations, corporate entities, education institutions, and government agencies working together to encourage and facilitate the installation of rain gardens as one method of addressing the CSOs and other wet weather runoff issues.

2010–2019

40 **2010**—By appointment of Governor Tom Corbett, PEC Chairman Tony Bartolomeo was invited to participate on the Marcellus Shale Advisory Commission, a stakeholder process to identify improvements to the state's oil and gas law to better protect environmental resources. Many of the recommendations were incorporated into the first updates to the state law in almost 30 years. PEC continues to seek adoption of leading practices and protections in deep shale gas development.

▲ **2010**—The Green Streets program in Ohiopyle was based on a master plan for managing stormwater inflow and infiltration into the sanitary sewer system of this tiny borough of 77 residents, completely surrounded by the 19,000-acre Ohiopyle State Park. The park receives 1.5 million visitors each year, and the borough struggles to deal with strain on infrastructure. A program of green infrastructure and beautification helped to make parking more functional, managing stormwater runoff, reducing infiltration into sanitary sewer lines, and filtering pollution before it reaches the Youghiogheny River.

42 **2010**—Borrowing from paddling programs on the Allegheny River, PEC created Paddle Penn's Landing in 2010, initially as a free 30-minute experience. Since that time, it has grown into a summer-long concession operated by the Seaport Museum that serves nearly 10,000 people.

43 ▲ **2010**—In support of increased interest in unconventional drilling of natural gas in Pennsylvania, PEC hosted a two-day Marcellus Shale Policy Conference in Pittsburgh, which brought together key stakeholders, regulators, industry officials, environmental advocates, civic and municipal leaders, and others to engage in a public participation dialogue. Later that year, PEC released a report, "Developing the Marcellus Shale," which documented PEC's findings and conclusions from this conference and detailed a set of recommendations to serve as the framework for new legislation and regulations.

▲ **2013**—PEC was instrumental in the creation of the vision of the Industrial Heartland Trails Coalition (IHTC), a network of off-road, multi-use trails that connect many of the major centers of America's Rust Belt. When completed in 2033, the IHTC will span 48 counties across four states. By connecting trails, IHTC will also connect small towns, regional assets, and various destinations, allowing locals and visitors to be able to bike, run, or walk from trail to trail, city to city, and town to town.

45 **2015**—The Wissahickon Creek is a popular outdoor recreation destination in suburban Philadelphia, but the water quality has suffered due to neglect and pollution. Together with the Wissahickon Valley Watershed Association, PEC collaborated with thirteen municipalities to create a total maximum daily load (TMDL) alternative to reduce nutrient pollution and sediments, and restore natural hydrology. This data-driven initiative laid out an ambitious investment strategy to improve water quality and measure and report on success in a rare, coordinated multi-municipal collaborative.

2010–2019

▲ **2015**—PEC worked closely with the Philadelphia Water Department (PWD) and the Tookany/ Tacony-Frankford Watershed Partnership (TTF) to implement a green infrastructure Best Management Practices pilot program. This program targeted areas within Philadelphia's combined sewer overflow area to better manage stormwater and reduce harmful impacts on water quality in the watershed. The project was created to support PWD's Green City, Clean Waters program, which aims to capture rainwater at its source rather than relying solely on pipes and tunnels to retain and treat the excess storm flows.

48 **2017**—PEC convened 18 regional trail and greenway initiatives and several foundation leaders from around the country to promote collaboration, learn from challenges and successes specific to regional systems, and explore the potential of facing shared obstacles together—leveraging collective visions and impacts. Deemed a success, PEC co-hosted and grew the 2018 gathering in Bentonville, Arkansas, and currently leads the ongoing effort known as the Collaboration of Regional Trail Initiatives.

49 **2017**—PEC convened a conference on deep decarbonization with state and national experts, on how Pennsylvania could establish a pathway to substantially reducing greenhouse gas emissions from the electricity sector. The findings from this gathering have since informed policy development in the state on issues ranging from emissions cap and trade to support for distributed renewable energy generation.

▲ **2018**—PEC was one of several organizations that helped secure critical Pennsylvania delegation support for reauthorization of the Land and Water Conservation Fund, a bipartisan commitment to safeguard natural areas, water resources, and cultural heritage, and to provide recreation opportunities to all Americans. To date, the LWCF has provided more than $309 million in funding support to Pennsylvania from well-known places like the Flight 93 National Memorial and the Appalachian Trail to local projects like public park development and improvement in counties and municipalities across Pennsylvania.

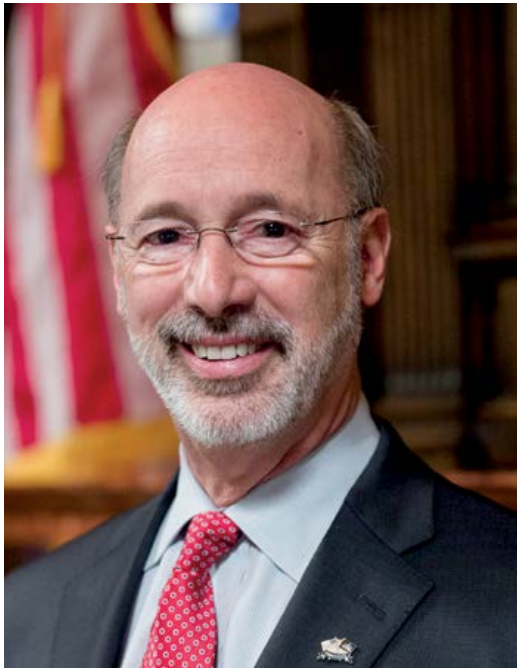
A Note from the Desk of the Governor

Greetings—

Pennsylvania is surrounded by natural beauty, from our scenic trails and state parks to our lush forests and waterways. Our commonwealth possesses a rich history of individuals and agencies who have made noteworthy contributions to the protection of our environment and our natural resources. Since its origins 50 years ago, PEC has demonstrated vital leadership and determination in the pursuit of the goal of environmental protection. PEC has helped develop and secure leading protections on natural gas development, participated in statewide and regional efforts to improve our waterways, worked with private and public partners to expand recreational opportunities, and secured policy solutions to address climate change. I am confident that PEC will continue to serve the Commonwealth with great distinction and inspire others for many years to come.

As governor, and on behalf of all the citizens of the Commonwealth of Pennsylvania, I am pleased to congratulate the Pennsylvania Environmental Council on its fiftieth anniversary. Please accept my best wishes for continued success.

Tom Wolf



Governor Tom Wolf
2015—Present

Eleanor Winsor

Co-Founder
Pennsylvania Environmental Council

There was a small group of us in the beginning. Josh Whetzel was president of the Western Pennsylvania Conservancy. Bob Broughton was a professor at the University of Pittsburgh School of Law. Colson Blakeslee, a doctor from DuBois. Curtis Wright practiced law in Ambler, and Tom Dolan was president of the Wissahickon Valley Watershed Association.

We gathered at Josh and Farley Whetzel's house near Pittsburgh in early 1969 to discuss how to address Pennsylvania's many environmental problems. Everyone realized that the Commonwealth could not continue to abuse its natural resources without inflicting more irreversible environmental damage.

We envisioned a statewide activist organization that could speak out on environmental issues where it mattered most—in Harrisburg—to the legislature and the administrative agencies. Our model was based on a belief that state government was willing to take the best scientific and economic data, coupled with the technological knowhow to solve environmental problems and protect environmental quality. We also believed that polluting industries should pay the true cost of using resources and not leave devastated land, water, and air for future generations.

PEC would focus on one or two issues so as to not dilute its resources. We were pretty good at identifying problems before others did, collecting scientific, technical, and economic information to support our actions, and then develop a coalition to lobby, pass, and implement the laws needed to make the solution a reality.

As a nonpartisan lobby, PEC brought environmental groups and agricultural, business, industry, and academic professionals together to improve Pennsylvania's environment. PEC's representatives could walk into any office in Harrisburg. While politicians or administrators might disagree with us, they respected our careful presentation of the facts. And we were good at getting objective information to them.

PEC had an ability to draw on other environmentalists, academic institutions, unions, remediation, and polluting industries for advice to craft approaches that cleaned up the environment and enabled industry to move ahead to improve Pennsylvania's environmental quality and make a profit. We appreciated the need for businesses to prosper, yet insisted that they incorporate the long-term costs of environmental degradation in how they operated. While we realized that some technologies had problems, we also knew that simply saying no to their use was unacceptable. We operated based on the best data we could get, not on emotional or personal preferences.

For example, we had one wealthy donor who wanted to totally underwrite the organization for multiple years if PEC would oppose a nuclear power plant near his home. We refused to oppose the nuclear power industry. We said that you couldn't simply do that. You also had to look at scientific data and solve the problems. There were many times when PEC was confronted with similar choices.

Getting good scientific, technical, and legal knowledge and applying it was an effective way of operating. And it was, I think, very positive. Instead of yelling and shouting, we worked with the companies and agencies, we listened to their problems, went back and talked with the different parties. Then we suggested alternatives that protected and improved the environment.

So we tried to work with all interests, to listen, to try to find out as factually as we could what was going on, and then to get out of the way. Get good information to people, trust that they will operate for the greater public good, form coalitions to lobby for the needed protections. And the great thing was that the groups that advocated more radical positions enabled PEC's positions to have greater viability.

I believe that, ultimately, if you do not have individual integrity and congruence in what you do that you're going to get in trouble. From my perspective, PEC had that. As we moved into the 1980s, much of the environmental regulatory structure was in place, and the organization needed to adapt to a changing environment. It's hard to imagine today how few environmental laws and regulations were in place when PEC began. The legacy left by PEC and many of the Pennsylvanians who wanted improved environmental quality is a positive one. ■

A Note from the Desk of the Governor

Greetings and Happy Anniversary!

One of my great pleasures as governor was to see the enormous energy, talents, innovative spirit, and civic-mindedness of so many Pennsylvanians, and I recall quite often recognizing those qualities when the Pennsylvania Environmental Council was in the spotlight.

Many will recall that our administration started with a near-meltdown at the Three Mile Island nuclear plant on March 28, 1979. That was newsworthy and important, and remains so, but the main challenge to Pennsylvanians in those years was the sad state of the Commonwealth's economy and infrastructure. Bad roads, leaky pipes, shuttered steel mills, and strip-mined landscapes did not bode well for our future.

The solution was to bring the Commonwealth out of the Industrial Age and into a 21st-century economy. That meant re-tooling PennDot, establishing the Water Facilities Loan Board (later called PENNVEST), developing a solid waste plan, which became Act 101, joining the Chesapeake Bay cleanup, establishing the State System of Higher Education and the Ben Franklin Partnership to bring new technology enterprises and jobs, and funding innovation in education and job training.

It also meant new attitudes about government, politics, and public debate. Civility, following facts and not ideology, communicating for real and not just shouting slogans; these ways of operating were where the Pennsylvania Environmental Council often stood out among the players of that time, and it still does.

Pennsylvania thanks you for that. Keep up the good work for many decades to come!

Dick Thornburgh

Governor Dick Thornburgh
1979–1987

Franklin Kury

Senator, Pennsylvania Senate, 1973–80
Member, Pennsylvania House of Representatives, 1969–72
Board of Directors, Pennsylvania Environmental Council, 1980–2000

From 1965 to about 1972, Pennsylvania went through an environmental revolution. The people of Pennsylvania woke up to the fact that they'd been badly exploited by the coal industry, the steel industry, and the railroad industry. And they were determined. They saw too many acres of land being struck by surface mining and slag piles.

In those few years, the legislature passed more bills on the environment than in all the history of Pennsylvania before or since.

In fact, when I was elected to the House in 1966, my picture was in the *Philadelphia Inquirer* and the *Pittsburgh Post-Gazette*, suggesting that I was the new wave of environmental legislators. I was the first one to go hard on an environmental issue, and I defeated the senior Republican in the House of Representatives.

In the legislature, I was a strong proponent of environmental issues. I was the author and lead advocate of the bill that became Article 1, Section 27, otherwise known as the Environmental Rights Amendment.

At that time, PEC had just been founded and the amendment was just a year away from going public. But we got it through the legislature with the help of Curt Winsor, who was the first leader of PEC.

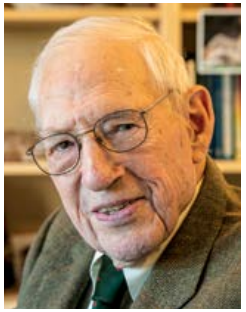
PEC and I worked together. Curt was very strongly in favor of the amendment. He and PEC, along with a few other organizations, really helped the public understand why this should be passed. Curt was one of the leaders in that effort.

So when we went to the ballot in 1971, Curt Winsor and PEC helped us. The amendment passed the public referendum by a margin of four to one.

Since its beginning, PEC has been very aggressive in supporting environmental legislation and helping the public to understand environmental issues. Their role as educators of the public and advocates for environmental legislation has had a positive impact on Pennsylvania. It also got the business community involved, which has been terrific. PEC did a good job of getting people together to talk things over and build consensus on what we needed to do to protect the environment.

PEC was different from other environmental advocates in the way they got industry and people involved, more than just pure environmentalists. They brought a more balanced approach. PEC understands that we have to protect the environment and secure that protection, or we as a society are going to lose where we live and how we live. ■

Tom Dolan



Co-Founder
Pennsylvania Environmental Council

After World War II was over, I went to Cornell University because they were one of four schools in the country giving a degree in conservation. This is what I wanted to do. I did not want to go into law or finance as all of my closest friends had done.

During my last year at Cornell, I got a call from the Academy of Natural Sciences in Philadelphia and was hired for the summer to work on a river survey project for the Conestoga River in Lancaster County. Several years later, I went to a brand new organization called the Wissahickon Valley Watershed Association as their president and executive director.

There were several of us who were involved in various environmental organizations. We were meeting with Trout Unlimited in Harrisburg, and it was then that we decided that we needed an organization like PEC. So we talked to Governor Shapp about it, and he asked to attend one of our meetings with us. At that meeting, he put up his hand and said, "Gentlemen, I think what you ought to be doing here, to be most effective to the state of Pennsylvania, is to organize yourself into two groups. The first group might be called Pennsylvania Environmental Council, and the second one would be called EPIC, for Environmental Planning Information Center." EPIC was intended to provide information about environmental issues for PEC and for the citizens of Pennsylvania, as well as what we thought needed to be done. PEC would be the organization that would really dig in there and work with the legislature as much as possible.

At that meeting, it was decided that Curt Winsor would take over PEC, and I would take over EPIC.

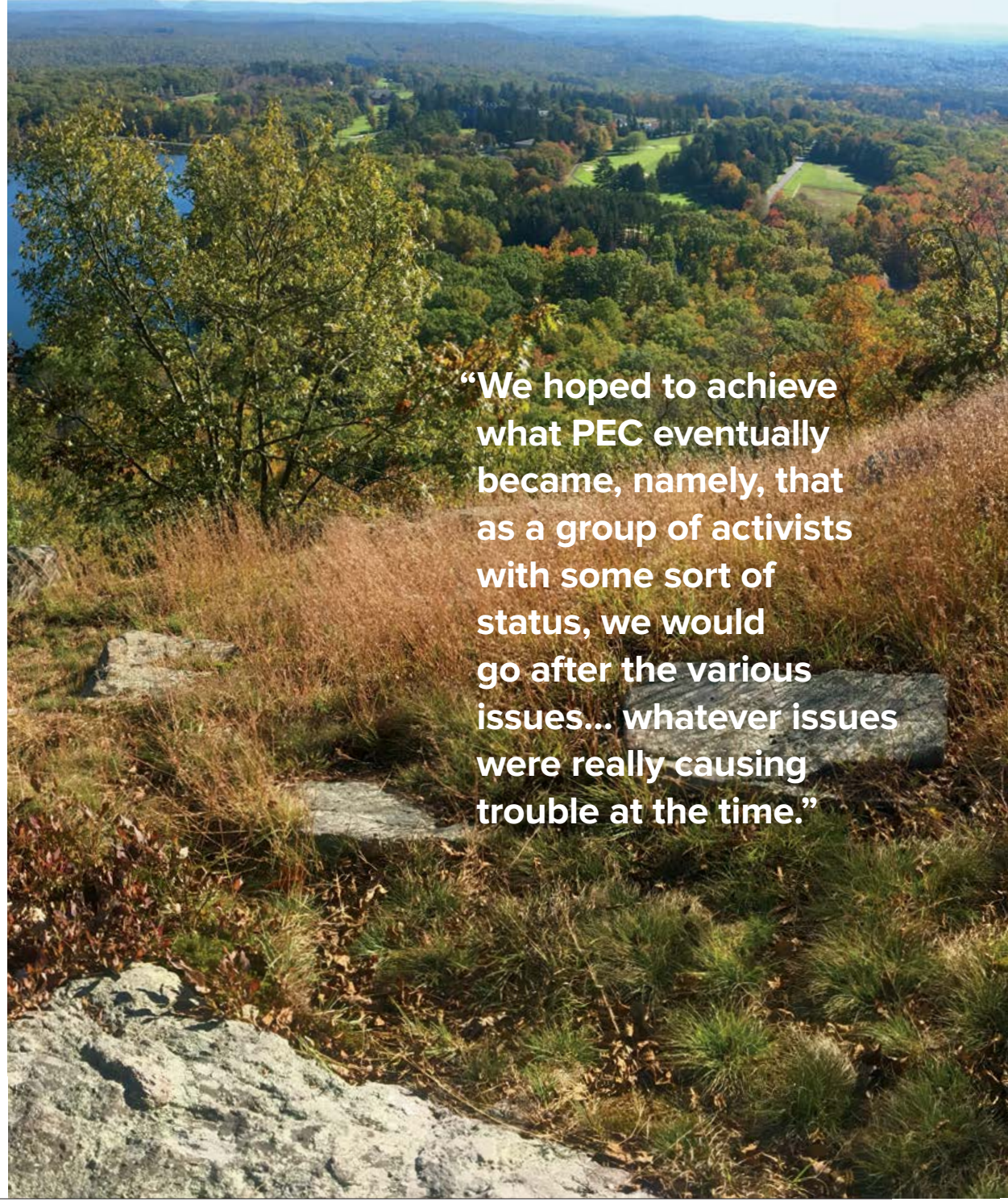
Certainly, water quality was a major issue at that time, and of course that was a priority of the people at Trout Unlimited. Water quality had always been my main issue, and it certainly was Curt's main issue at the time, since he was an avid fisherman and we have more miles of trout streams in Pennsylvania than any other state, and so we looked to him to be the first president.

We hoped to achieve what PEC eventually became, namely, that as a group of activists with some sort of status, we would engage the General Assembly on the various issues... whatever issues were causing trouble at the time.

We all had strong environmental backgrounds, from activists to professionals, and we were a very good group. Curt was our executive director, and I think what we had to say had an effect. Gradually, we moved ahead and became very well accepted, including with the legislature, and I think that's still the case today.

Certainly, the Wissahickon Valley Watershed Association was very important in my career. Everything that I did at the Academy of Natural Sciences has fit into whatever I've done in my career. And PEC was very important in my career for that short time that I was so active with it, because it exposed me to people like Maurice Goddard, who became a great friend of mine and who was a tremendous help to us as we moved along.

I'm so pleased that PEC has been as effective as it has been. And for that reason, I think all of us who were involved in the beginning should feel very pleased and perhaps a bit proud of the fact that we got it started. ■



Like giant mausoleums to America's industrial legacy, these properties came to symbolize the American Rust Belt. They were so iconic and abundant that by the early '90s, they were finally given a name—brownfields.

Abandoned steel plant in Bethlehem

Reclaiming Pennsylvania's Industrial Legacy

PEC's Role in Land Recycling Broke New Ground in Old Properties

As the Industrial Revolution forever transformed the global economy, Pennsylvania emerged as the epicenter for manufacturing and industrial production. Towns and factories grew up in each others' shadows across the Commonwealth, taking full advantage of hundreds of miles of flat, accessible riverfronts—essential for shipping Pennsylvania-made goods to markets around the world.

Buildings of every shape and size, some large enough to be seen from space, lined Pennsylvania's riverfronts east to west and in many locations in between, and were the economic engine in the production of steel, iron, chemicals, industrial machinery, and a whole host of other products and materials.

As basic manufacturing industries modernized around the world, many Pennsylvania plants and factories went idle. Jobs disappeared. Factory towns fell into decay. But the industrial pollution from 100 years of operations remained in the soils, walls, and waste dumps of Pennsylvania's rusting industrial relics.

Hundreds of abandoned properties littered the Pennsylvania landscape, each one plagued with contamination that no developer, bank, or corporation wanted to touch for fear of being saddled with the full cost of decontamination and site remediation. It was simply cheaper and risk-free to let these facilities sit idled and abandoned indefinitely.

"The federal Superfund legislation of 1980 was basically a heavy blunt instrument," said Jack Ubinger, an environmental attorney who served as both a PEC vice president and a board member. "It completely messed up the industrial and commercial real estate market because it made anybody that touched property that was contaminated responsible for it. So a lot of people just said, 'We'd rather put a padlock on it and leave it,' and people weren't buying them anyway."

So like giant mausoleums to America's industrial legacy, these properties came to symbolize the American Rust Belt. They were so iconic and abundant that by the early '90s, they were finally given a name—brownfields.

A Passion for Land Recycling

While quantifying brownfields with any precision is difficult, NETR Real Estate Research and Information, LLC estimates that there are 455 designated brownfield sites in Pennsylvania.

Based on the Superfund cleanup standard, a sentiment that the polluter should pay for site remediation to a pre-industrial condition was the prevailing legal foundation for redevelopment.

The problem caught the attention of Sen. David Brightbill of Lebanon County, chairman of the Environmental Resources & Energy Committee, whose senate district included an idled Bethlehem Steel plant.

The Lebanon County Redevelopment Authority had shown an interest in turning this site into a revenue-generating property, including demolition and construction of basic infrastructure. But the "polluter pays" doctrine kept private developers and lenders from taking the project any further.

So Brightbill's committee began to examine the problem of abandoned industrial sites, the cost of remediation, and possible solutions for returning the sites into productive use.

Dave Hess, who was serving as executive director of Sen. Brightbill's committee, was tasked with leading the legislative effort to address the problem.

"We looked at the issue of cleanup standards and bank liability," said Mr. Hess, who later served as secretary of the Pennsylvania Department of Environmental Protection. "We looked at what other states had been doing. Michigan in particular had the beginnings of a good law. And, I borrowed the term 'land recycling' from them."

PEC was one of the organizations Hess consulted. PEC President Joanne Denworth was one of the most progressive thinkers on land use at that time. Brian Hill was PEC's new vice president of the Western Pennsylvania office.

"One of Joanne Denworth's real passions was land use, responsible development, avoiding urban sprawl, and that kind of stuff," recalls Mr. Ubinger. "It was really bothering her that people were walking away from usable property and building on greenfield sites."

"I grew up in Western Pennsylvania," says Mr. Hill. "You saw large areas that were fenced off, that were economically dead, environmentally dangerous, and being unaddressed. There was no incentive for people to actually redevelop those sites or solve those environmental problems. Joanne saw that as well. The question became, how do we address that? How do we solve that problem? Who do we have to get around the table?"

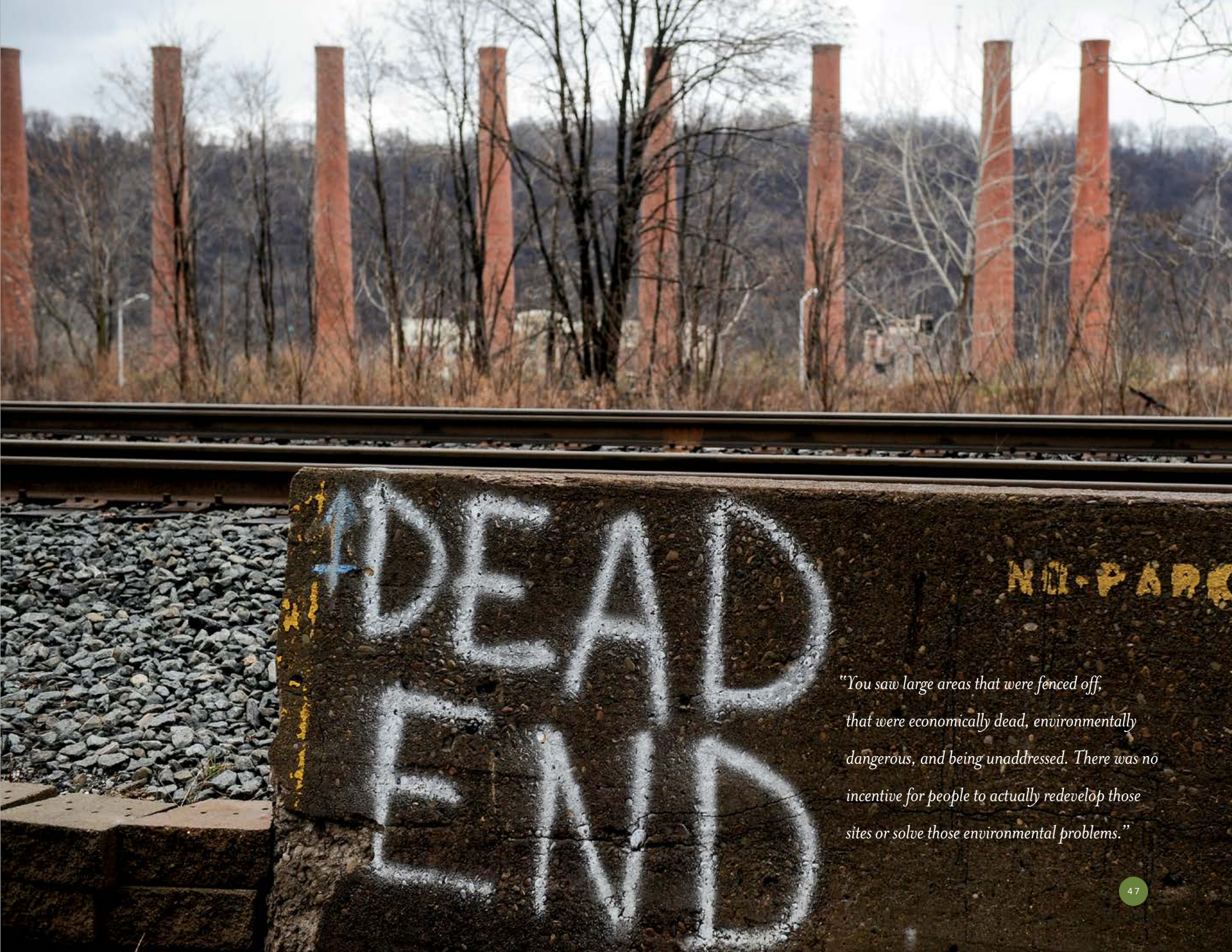
That led to a series of roundtables across Pennsylvania co-sponsored by PEC and local economic development agencies.

"We received a small grant from The Heinz Endowments to put together the roundtables," recalls Mr. Hill. "Andrew McElwaine [then program officer at The Heinz Endowments and later PEC president] often says it was some of the best money he ever spent.

"I think that those roundtables were critical to the creation of the land recycling program that we have in Pennsylvania now."

The findings of the roundtables led to the creation of a PEC white paper, which concluded that in order to have a robust commercial and industrial real estate development process, Pennsylvania would need to address the issue of limited liability for developers. In addition, the PEC report discussed remediation and setting appropriate cleanup standards that banks, developers, and regulators could accept.

"We had people on our board who were attorneys, who knew that there was a challenge," adds Mr. Hill. "There was a lot of conversation back and forth. They had, in some cases, a vested interest. But we asked them to put that aside to have a conversation about what's really good about public policy."



"You saw large areas that were fenced off, that were economically dead, environmentally dangerous, and being unaddressed. There was no incentive for people to actually redevelop those sites or solve those environmental problems."

"There was a study that indicated that the work that's been done along the riverfront has led to about $2 billion worth of investment close to downtown Pittsburgh."

Redeveloped waterfront property in Homestead

Photo: Richard Stephen Haynes

Making the Case in Harrisburg

Meanwhile, Sen. Brightbill and his committee held fact-finding hearings around the state.

"No one had really done a comprehensive law before," adds Mr. Hess. "We were the first state to include banking liability, grants for development, and cleanup standards. It was truly a bipartisan initiative."

Then-Governor Bob Casey and his administration had opposed land recycling, siding instead with supporters of the "polluter pays" model. But members of the General Assembly from across Pennsylvania and on both sides of the aisle were frustrated by the stagnation of brownfield sites in their districts, and were anxious to find a legislative solution. They knew that without legislation, communities hard-hit by the loss of basic manufacturing would continue to deteriorate.

PEC's view, says Mr. Ubinger, went beyond the scope of environmental quality. Economic development, minimizing the impact of greenfield development, and returning abandoned sites to productive use, along with the job-creating opportunities associated with it, were all factors to be taken into consideration.

So the model adopted in Sen. Brightbill's proposal and supported by PEC called for uniform cleanup standards, liability relief, standardized reporting and review procedures, and financial assistance for site assessment and remediation. Of particular importance to lawmakers and developers alike, the legislation called for three tiers of remediation standards, to be determined by the developer.

PEC worked hard to gain passage of the bill, with Ms. Denworth and Mr. Hill testifying numerous times before House and Senate hearings.

In his 1994 campaign for governor, then-Congressman Tom Ridge championed the need for reform in land recycling regulations.

"Environmental progress goes hand in hand with a vibrant economy and prosperous communities," said Gov. Ridge. "We have to make it possible for employers of all sizes to undertake cleanups. Cleaning up contaminated sites and making them productive again means jobs for Pennsylvanians, and we are committed to making Pennsylvania a place where communities—and their families, workers, and employers—can thrive."

Immediately after taking office, Ridge sent the Pennsylvania Land Recycling Act to the General Assembly as his first legislative initiative for consideration. Act 2 passed with broad bipartisan support and instantly became the most progressive and innovative brownfield law in the nation.

"PEC's primary role was bringing people together in those roundtables," recalls Mr. Hess. "And they obviously took the issue seriously. There were a number of environmental groups that just flat opposed it."

Since the inception of the Pennsylvania Land Recycling Program, more than 1,000 brownfield sites have been cleaned up across the Commonwealth, most of them returned to useful purposes in their communities.

So now, 25 years after its enactment, Hess looks back on the impact Act 2 has had on Pennsylvania's environment and its economy.

"The net effect has been tremendous," he says. "I mean, you have nearly 40,000 jobs, maybe more than that right now on brownfield sites that wouldn't have been there without this law, period. And, more fundamentally, you had those sites now made safe and cleaned up on the private dollar as part of those projects. So it not only facilitated jobs, it facilitated the cleanup at private expense of these properties that otherwise nobody would have touched."

From his office overlooking Pittsburgh's downtown riverfronts, Mr. Hill agrees that the economic impact of brownfield development has been positive.

"We have seen an extraordinary amount of riverfront development in the city of Pittsburgh," he says. "There was a study that indicated that the work that's been done along the riverfront has led to about $2 billion worth of investment close to downtown Pittsburgh.

"But if you hadn't invested in cleaning up the sites so that people could work there and begin to redevelop those sites, that wouldn't happen." ■

A Note from the Desk of the Governor

Congratulations!

I'm proud to be one of seven Pennsylvania governors whose time in office was enhanced by the path-breaking work of the Pennsylvania Environmental Council.

Nearly 20 years before the word "sustainability" came to environmental discourse, Curt Winsor, the founder of the Council, had that whole idea pretty much figured out. He and Eleanor Winsor, and thousands of others who have followed them, realized early on that arguments about "jobs vs. trees," finger-pointing, and scare tactics were counterproductive to real progress. Instead, they championed education, communication, and honest negotiations as the best tools, and have successfully demonstrated these approaches for five decades.

We made those tools and approaches part of the shift from DER—a regulatory and enforcement agency—to DEP and DCNR—two agencies that brought a full range of services and partnerships to Pennsylvania's environment and to those who worked to improve it. The Land Recycling program, now with over 7,000 sites brought back into productive reuse; mine reclamation projects; stream cleanups; land preservation; regulatory negotiations—and many other efforts following the approaches used, and the suggestions made, by PEC, have benefited our Commonwealth immensely.

And with PEC's help, support, and advocacy, we passed Growing Greener, the single largest investment of state funds in Pennsylvania's history that helped address critical environmental concerns all across Pennsylvania.

We all know there is much left to do, so let's hope we can count on PEC to keep at it for at least 50 more years!

Thomas J. Ridge

Governor Thomas J. Ridge
1995–2001

James Seif

Secretary, Pennsylvania Department of Environmental Protection, 1995–2001

I started out as a prosecutor in Pittsburgh but had handled some environmental cases. From there, I went to Philadelphia where there was a group headed by Curt and Eleanor Winsor.

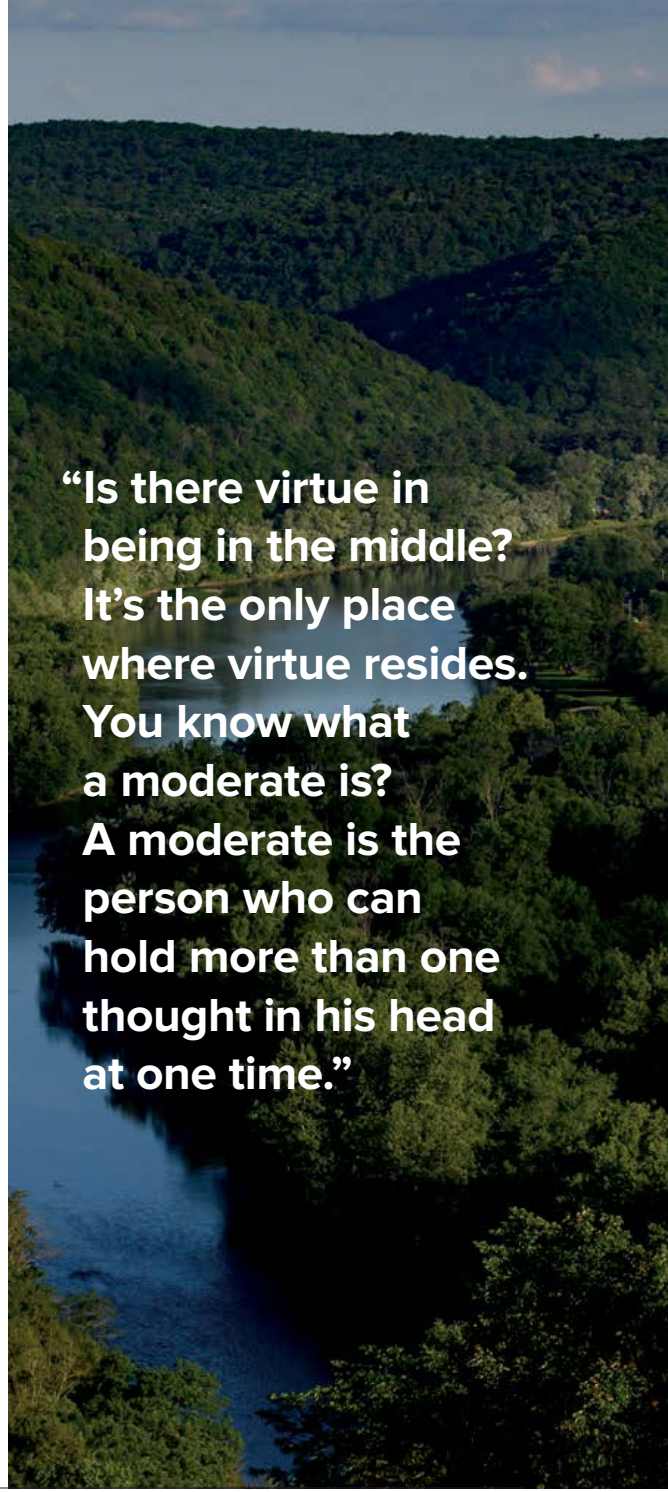
In Harrisburg, the newly formed Department of Environmental Resources was led by Dr. Maurice Goddard, and had, at the time, something called an "environmental strike force." The idea behind this was to strike fear in the hearts of polluters. Curt's approach, however, was to be quieter and go down the middle path by asking, "How can we solve these broader economic and technical problems?" That was the first version of "it's not us vs. them"—it's "how can we stop making this mess?" Looking back on it, all the problems that emerged from the "us vs. them" approach to solving environmental issues had been recognized by Curt earlier than the combatants at the time recognized them.

There was a slow realization that Curt's approach clearly was right. That is, that you couldn't make much headway by picking a fight with people. You can only do it if you understood their problems. When you figured that out, you can be part of the solution to the problem—not beating up someone who looked like they were the problem. And as a former prosecutor, I came to realize that litigation alone is an inadequate way to solve environmental problems.

PEC's contribution to Pennsylvania environmental progress was to hold the venerable middle, to define the middle, to be the raging moderate. To be the one that says, "Wait. Did you think of this?" And in an organized way, invite people to think of different solutions—to have problem-solving sessions, to educate, to do the things to build up thoughtfulness about environmental issues. PEC's contribution was to say, "Wait a minute. Let's think about this first."

Is there virtue to being in the middle? I believe that it's the only place where virtue resides. You know what a moderate is? A moderate is the person who can hold more than one thought in his head at one time. PEC took positions, sure. And they were environmentally sound positions. But, they never adopted a self-righteous tone that said, "We know what's best." And that was the right way to solve public problems.

When a problem is not well recognized, it needs to be brought out into the open. The PEC approach gathers the evidence and is scientifically truthful. It is thoughtful. Intellectual integrity is the ability to change your mind when a new piece of evidence shows up. So I think PEC's next 50 years should not waver from its first 50 years because the need for its approach has not diminished. ■



Taken by Storm

PEC Joins the Struggle to Solve the Stormwater Problem Across Pennsylvania

Millvale, Allegheny County

Billions of gallons of untreated sewage and stormwater pour into rivers and streams on both ends of Pennsylvania, a serious threat to public health and the drinking water supply for millions of people.

Howard Neukrug and Mary Ellen Ramage live on opposite ends of Pennsylvania and have almost nothing in common with one another. But they do share one common bond that bridges the miles separating the City of Philadelphia and the small riverfront community of Etna: stormwater overflows.

According to U.S. Climate Data, Pennsylvania receives an average of 41 inches of precipitation per year. But during nearly any rain shower or snow melt, the aging municipal sewer infrastructure in both Philadelphia and Etna overflows with excess stormwater. The end result is billions of gallons of untreated sewage and storm-water pouring into rivers and streams on both ends of Pennsylvania and in scores of communities in between, a violation of the federal Clean Water Act, and a serious threat to public health and the drinking water supply for millions of people.

The Philadelphia sewer system consists of more than 3,600 miles of sewers, some dating back as far as the 19th century. A watershed of over 13,000 square miles flows directly into the Philadelphia sewage treatment system, and what the decaying sewer system can't control flows directly into the Delaware and Schuylkill Rivers untreated.

"It's certainly challenging," says Howard Neukrug, executive director of the Water Center at the University of Pennsylvania and the retired CEO of the Philadelphia Water Department. "In the past 10 years, there has been more extreme weather, and our utility was being asked to provide more service than we ever have."

Though on a much smaller scale, the challenge facing Ms. Ramage is equally daunting.

In Pennsylvania, the problem of an aging sewer infrastructure is compounded by sewage overwhelming the system and flowing untreated into rivers and streams.

Etna, a riverfront community outside of Pittsburgh, saw its population drop from 11,000 in the 1960s to 3,500 today. The steel jobs have mostly disappeared, but the populations of more affluent communities surrounding Etna have exploded. A watershed of 67 square miles that includes 13 other larger, rapidly growing communities, now flows directly into Etna's main business district, which is only 0.8 square miles in size.

"It's like a funnel, and we're this tiny piece at the end," says Ramage, Etna's borough manager. "When I interviewed for this position, I was asked, 'What do you think will be your biggest weakness?' And I said, 'Sewers. I know nothing about sewers.' Now, it's the number one thing I look at."

And for good reason.

Unlike the Philadelphia Water Department, with 1.7 million customers and an annual budget of over $400 million, Etna's total sewer budget is approximately $700,000, 80% of which is the conveyance fee paid each year to the regional sanitation authority for sewage treatment.

In 2004, Ms. Ramage got her first real education in stormwater management when Hurricane Ivan crawled up the mid-Atlantic states, dumping six inches of rain in Etna in less than 24 hours.

"One-quarter of our community is in the flood plain," adds Ramage. "We were just decimated. We were one of, if not the worst hit community. We had 400 homes damaged, which is 25% of the community. Two hundred of those homes had first-floor flooding, which means you can't live in your house."

Aging Infrastructure

But flooding is only part of the stormwater management problem. In most older cities and towns, including almost all of Pennsylvania, the problem of an aging sewer infrastructure is compounded by sewage overwhelming the system and flowing untreated into rivers and streams.

Prior to the 1940s, when many U.S. municipalities began creating sewage treatment programs, the state of the art was to build sewer systems that accepted both sewage and stormwater. The stormwater had a mitigating effect on the sewage by diluting its concentration. The diluted, combined sewers went straight to a river or some surface water, and the dilution was from the stormwater introduction, creating a natural treatment method.

Today, Pennsylvania has 1,608 combined sewer outfalls in 39 counties, which accounts for about 17% of all such outfalls in the United States.

But with the advent of sewage treatment plants, the effect of wet weather eventually proved too much for the deterioration of 100-year-old combined sewer lines to handle. As populations grew and the systems began to crumble with age, the problem of combined sewer overflows became an overwhelming environmental problem for ill-equipped and underfunded municipalities.

But the problem isn't limited to municipal sewer systems.

The Rural Problem

Another equally challenging dimension to storm-water management occurs on agricultural land, which comprises one-fourth of all the land in Pennsylvania. And with more than 59,000 farms generating nearly $7.5 billion, agriculture remains one of the Commonwealth's largest and most important industries.

In this case, stormwater carries agricultural contaminants from the surface into streams, creeks, and rivers, much of which, in Pennsylvania's case, eventually make their way to the Chesapeake Bay.

In fact, the Pennsylvania Department of Environmental Protection reports that half of the land area of Pennsylvania drains to the Chesapeake Bay from four major river basins, and Pennsylvania comprises 35% of the entire Chesapeake Bay Watershed.

As a result, the sheer number of farms and land area in Pennsylvania contributing to this agricultural surface water runoff is a significant contributor to the contamination of the Chesapeake.

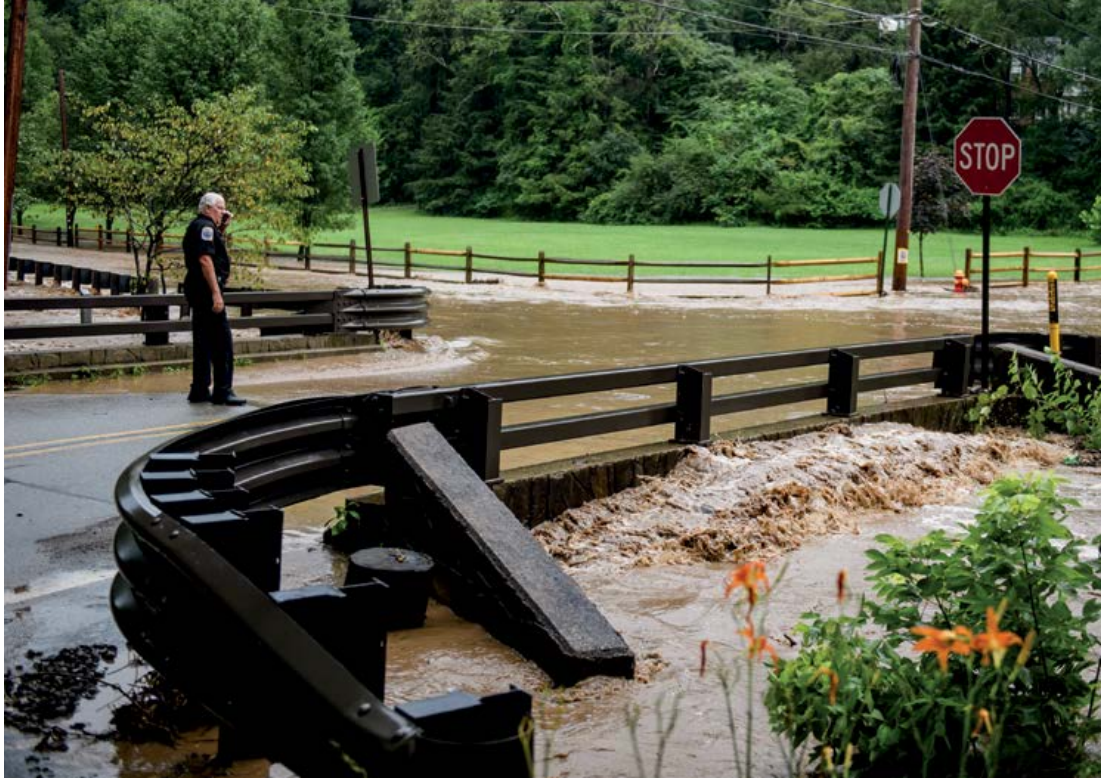
The problem of agricultural nutrients in the Chesapeake Bay posed a unique set of challenges quite different from those in the sewers of urban areas in Pennsylvania. A nutrient credit trading program, patterned after the federal air pollution credit trading program, was developed and implemented in Pennsylvania.

PEC staff inspect switchgrass plantings, enhanced by poultry waste for use as a potential fuel source, on abandoned farmland in 2008.

Jack Ubinger, a former PEC board member who later served as its senior vice president, helped in the creation of a nutrient credit trading market in Pennsylvania.

"PEC, in conjunction with the Penn State extension, was trying to figure out a way to remove nutrients from the Chesapeake Bay watershed," recalls Ubinger, "and they came upon poultry operations. Poultry manure is very high in nutrients, and when it's dry can be more easily transported."

"We found abandoned farmland, and we were to take poultry waste and use that as an amendment to soil along with some other things, such as paper mill sludge. It added another component to the whole process of amending the soil. We found that you could grow switchgrass, which could then become a fuel source and at the same time amend abandoned farmland—and later, abandoned mine lands—and grow a fuel that could be used to lower carbon emissions."



Less than one-quarter inch of rain is enough to overwhelm some municipal storm sewers and cause many Pennsylvania waterways to overflow their banks.

The Urban Problem

Back underground, the problem of storm sewer and combined sewer overflows has become a priority for more than just sprawling Philadelphia and tiny Etna. Pittsburgh, Harrisburg, Erie, Scranton, and virtually all urbanized communities across Pennsylvania are grappling with a problem that plunges them into a violation of the Clean Water Act whenever it rains, and the costs of compliance are staggering.

The Philadelphia Water Department, the public agency charged with managing the city's water and sewer infrastructure, has committed to a $10 billion program over 25 years to keep stormwater from overflowing its system through "green infrastructure," a strategy that focuses on natural filtration on city streets and neighborhoods, rather than on treatment.

Green City, Clean Waters is Philadelphia's plan to transform the health of the city's waterways primarily through a land-based approach. By implementing green stormwater infrastructure projects such as rain gardens and stormwater planters, city officials believe they can reduce water pollution impacts, improve water quality in streams and rivers, and make neighborhoods more beautiful.

"By employing the philosophy we had in the 1880s, we realized we couldn't protect the rivers," recalls Neukrug. "We spent the entire 20th century not on source protection, but on treatment of whatever water was in the system. But as we started the 21st century, we realized there was much more to it than just treatment. So we're moving to a land-based strategy of protecting rivers and streams. It's all about rain and land use."

"PWD will spend $1 billion over the next 25 years to keep stormwater out of the sewers," he says. "Where's the best place to start? Poor neighborhoods and light industry. They can't build stormwater management facilities on their own. So give them the breaks so they can get help with keeping stormwater out of the sewer."

"We began to work on those issues to assist the Philadelphia Water Department in reaching the upstream communities of the City of Philadelphia," says Sue Myerov, PEC's watersheds program director. "We started facilitating a Watershed Alliance in southeastern Pennsylvania that included watershed organizations that were in the suburban portions of the watersheds leading into Philadelphia. One of those was the Wissahickon Roundtable, which was interesting to look at because of the codes and ordinances around stormwater management there."

Since 2013, PEC has been designated as a facilitator for the upstream suburban Philadelphia cluster of the Delaware River Watershed Initiative, a coalition of more than 50 organizations and home and landowners working to protect forests and farms, clean up streams, and improve water quality in four states.

To incentivize property owners to make green infrastructure a priority, the City of Philadelphia enacted a stormwater management fee, which enables commercial and residential property owners to get a credit if they install green infrastructure on their property.

"There are about 5,000 entities that provide water or sewer services or both in the United States of America," says Dr. Cohon, "and almost a thousand of them are in the 10 counties of southwest Pennsylvania."

Green vs. Gray

On the other end of the state, the problem is somewhat more complex. Unlike Philadelphia, which has a dedicated water authority that serves one large municipality, the Allegheny County Sanitary Authority (ALCOSAN) serves 83 separate municipalities, including the City of Pittsburgh. That makes a coordinated strategy for controlling stormwater and combined sewage flow to the treatment plant complex, cumbersome, and expensive.

In 2013, Dr. Jared Cohon, president emeritus of Carnegie Mellon University in Pittsburgh, was asked to chair a panel of experts to examine the question of regionalization of the ALCOSAN system. Cohon, who holds a Ph.D. in water engineering from MIT, was the ideal choice to tackle a problem that had eluded civic leaders for decades. Yet even he was impressed by what he discovered.

"There are about 5,000 entities that provide water or sewer services or both in the United States of America," says Dr. Cohon, "and almost a thousand of them are in the 10 counties of southwest Pennsylvania. People hear that and say, 'That can't be true!' But indeed, it's true. Regional river basins don't know township lines, and they don't care. Yet every township has its own sources and water supply system. We are as fragmented as one can be, and it's no way to run a railroad."

In 2012, ALCOSAN released a wet weather plan designed to eliminate combined sewer overflows, control municipal stormwater discharges, and bring the authority into compliance with federal law. Their proposed plan would dramatically increase the interceptor capacity in the ALCOSAN system. A public debate over "green vs. gray" infrastructure strategies brought the issue of stormwater management out of the sewers and onto the front pages.

Ubinger was a member of Dr. Cohon's regionalization panel.

"The use of green infrastructure in these circumstances is very different than Philadelphia's," he says. "Is green infrastructure in Pittsburgh feasible as the primary remediation approach?"

PEC argued that green infrastructure should be developed wherever possible, but that it was unlikely to contain storm sewer flow to the standards prescribed by law. And there was insufficient evidence to convince policymakers in Allegheny County that green infrastructure alone could be an effective solution.

"This was not to say that green infrastructure is not a good thing," recalled Ubinger. "It's not to say that green infrastructure won't work. But it wasn't going to be the primary way of doing this.

"PEC has come to the conclusion that we've been at this now since 1999. We're now in 2019, and the question is, when will this be done? PEC's view is that we should put a date certain, say 2040, and put a program of both green and gray infrastructure in place to have clean water by that date."

"If people understand where each person is coming from, where the upstream communities are coming from versus the downstream, that really does help people find common ground. And we did," says Dr. Cohon.

"It's going to take more time. But the key, I think, has been understanding people's objectives, helping everybody understand everybody else's objectives and listening to each other respectfully, and understanding also that we have a common goal, which is ultimately the health of our rivers and solving the combined sewer overflow problem."

"The biggest gift of all," says Ms. Ramage, "was helping us to see that there is a different way and that you can change. It's really hard to see a different future, and I credit PEC because through their whole process we began to see the possibilities. And they've been our partner all through.

"So they've enabled us to see the vision, and then been our partner along the way to change that from vision to reality." ■

Where are they now?

Jessica Anderson

Institutional Giving Director
The Trust for Public Land
Philadelphia, Pennsylvania

Communications Manager,
2005–2012

The Trust for Public Land works to protect the places people care about and to create close-to-home parks—particularly in and near cities. Its goal is to ensure that every child has easy access to a safe place to play in nature. Since leaving PEC in 2012, Jessica has raised millions of dollars for the development of green schoolyards, which are now providing opportunities for underserved children and families to experience the joy and wonder of nature close to home.

Lindsay Baxter

Manager, State
Regulatory Strategy
Duquesne Light Company
Pittsburgh, Pennsylvania

Program Manager,
Energy and Climate,
2011–2018

During her seven-year tenure at PEC, Lindsay was one of two Americans selected for the McCloy Fellowship in Environmental Policy with the American Council on Germany, where she completed independent research, including arranging 30 interviews with German energy experts, culminating in a research paper entitled “The Energiewende: Informing Pennsylvania Energy Policy.” Today, Lindsay leads the state regulatory strategy for Duquesne Light Company in Pittsburgh.

Ellen Ferretti

Director, Brandywine Conservancy
Chadds Ford, Pennsylvania

Coordinator, Pocono Forests and Waters Conservation Landscape
2008–2011

After leaving PEC in 2011, Ellen was named deputy secretary for Parks and Forests at the Pennsylvania Department of Conservation and Natural Resources. Governor Tom Corbett appointed her Secretary of DCNR in 2013, where she served for nearly two years.

She later served as a senior project manager at Barry Isett & Associates, a multidiscipline engineering firm. Additionally, Ellen was a Land Protection Specialist with The Nature Conservancy and was the director of environmental services at Borton Lawson, an engineering and architectural design firm.

Beth Brennan Fisher

Fund Development Specialist at Southern Illinois Healthcare Foundation
Carbondale, Illinois

Program Associate, 2002–2006

Since leaving PEC, Beth has worked as a development manager for the National Fish & Wildlife Foundation in Washington, D.C., and a coordinator in the Ph.D. Fellowship Program in Watershed Science and Management at Southern Illinois University. In addition to her role at Little River Research & Design, she is president of the board of directors of Green Earth, a nonprofit organization offering hiking and outdoor recreation in the Carbondale area.

Robert Hughes

Executive Director, Eastern Pennsylvania Coalition for Abandoned Mine Reclamation
Wilkes-Barre, Pennsylvania

Assistant Director, Northeast Regional Office, 1995–1997

In his current role, Bobby serves as grant administrator for the only regional nonprofit organization in northeastern Pennsylvania that works with community, nonprofit, and civic organizations to reclaim abandoned mine lands. He works with these coalition partners to support the reclamation and redevelopment of past mining areas impacted by abandoned mine discharge, and to provide environmental education and outreach opportunities in underserved coalfield communities and to regional educational and collegiate institutions on environmental resource management.

Spencer Finch

Project Manager and Sustainability Leader
Langan Engineering and Environmental Services
Philadelphia, Pennsylvania

Director, Sustainable Development, 2006–2013

Since leaving PEC in 2013, Spencer has served as chair of the Association of Pedestrian and Bicycle Professionals (Delaware Valley Chapter) and as a board member of the American Society of Civil Engineers (Philadelphia Section).

Janie French

Executive Director
Headwaters Charitable Trust
Curwensville, Pennsylvania

Director, Statewide Water Programs and Executive Director, Pennsylvania Organization for Watersheds and Rivers, 2012–2013
Director, Green Infrastructure Programs, 2009–2013

As executive director of the Headwaters Charitable Trust, Janie has raised more than five million dollars for 15 stream restoration and water-quality projects, improving 68 miles total in various watersheds in northwest/north-central Pennsylvania. She also served on the Pennsylvania DCNR State Trails Advisory Committee and was appointed to the Northcentral Pennsylvania Regional Planning and Development Commission's Economic Development Strategy Committee.

Hannah Hardy

Manager, Chronic Disease & Injury Prevention Program
Allegheny County Health Department
Pittsburgh, Pennsylvania

Director of Recreational Infrastructure, 2003–2013

After leaving PEC, she was the director of operations and programming for "Let's Move Pittsburgh," a healthy lifestyles program at the Phipps Conservatory and Botanical Gardens in Pittsburgh.

She is currently managing a five-year Centers for Disease Control grant that is reducing health disparities for African Americans in Allegheny County and recently started a Ph.D. program in community engagement at Point Park University.

Andy Johnson

Director, Watershed Protection Program
William Penn Foundation
Philadelphia, Pennsylvania

Chief Operating Officer and Senior Vice President, 1990–2001

Under Andy's direction, the William Penn Foundation's Watershed Protection Program has supported and helped to develop significant collaborative efforts focused on protection and restoration of clean water, public access to waterways, and building a constituency for clean water in the Delaware River watershed, including the Delaware River Watershed Initiative, the Alliance for Watershed Education, and the Circuit Trails Coalition.

Julie McMonagle

Lecturer/Lab Manager
Wilkes University
Wilkes-Barre, Pennsylvania

Vice President and Project Manager, Northeast Regional Office, 1995–2010

Julie's work in the Environmental Engineering and Earth Sciences program at Wilkes University is aimed at developing and implementing a field-based Environmental Science Summer Day Camp for high school students. The intent of this camp is to expose students to the fields of geo-sciences and learn about human impacts on air quality, water quality and quantity issues, and soils, by collecting and analyzing data from three area parks and trails.

Timothy D. Schaeffer

Executive Director
Pennsylvania Fish and Boat Commission

Director, Central Pennsylvania Region, 2002–2005

After leaving PEC in 2005, Tim joined Audubon Pennsylvania, and then later Pennsylvania Fish and Boat Commission as the director of Policy and Planning, a position he held for 10 years. From there, he was appointed deputy secretary of the Office of Water Programs at the Pennsylvania Department of Environmental Protection. He returned to the Fish and Boat Commission in 2018 to become the agency's executive director, where he serves as the Commission's chief executive officer as well as chief waterways conservation officer, and has charge of all activities under the jurisdiction of the Commission.

Jeff Knowles

Senior Associate
Alta Planning + Design
Oakland, California

Project Manager, 2009–2013

After four years at PEC, Jeff joined the Pennsylvania Department of Conservation and Natural Resources as a Southeast Pennsylvania Regional Adviser, where his main responsibility was forging public–private funding relationships to support open space preservation, and park and trail development across greater Philadelphia. In his current role with Alta Planning + Design, he directs multidisciplinary teams of planners, landscape architects, and engineers to deliver high-profile, implementation-focused pedestrian, bicycle, and trail plans.

Jonathan Meade

Associate Regional Director for Resource Stewardship and Science
National Park Service
Philadelphia, Pennsylvania

Director, Watersheds Programs, and Executive Director, Pennsylvania Organization for Watersheds and Rivers, 2009–2011

After leaving PEC in 2011, Jon joined the National Park Service in Washington, D.C. In his current role with the NPS, Jon oversees all work on natural resource management, cultural resource management, and environmental compliance from Virginia to Maine. He also functions as the chief scientist for the region.

Andy Walker

City Manager
Meadville, Pennsylvania

Director, Northwest Office 2008–2012

Andy joined the City of Meadville in February 2012 as the assistant city manager and city clerk. In January 2015, he assumed the position of city manager and serves as the City of Meadville's chief executive officer, overseeing the work of 90 employees in all aspects of city government, including police and fire protection and the delivery of essential public services.

John Oliver

President, Western Pennsylvania Conservancy, 1978–1995
Secretary, Pennsylvania Department of Conservation and Natural Resources, 1995–2002

I knew the founders very well.

The three founders were Curt Winsor, Tom Dolan—two Philadelphians—and then Josh Whetzel here in Pittsburgh.

I was with the Western Pennsylvania Conservancy at that time. I knew this was in the works and was obviously excited about it and saw the need as they did. They'd been around longer and knew there was a need for a statewide environmental advocacy group.

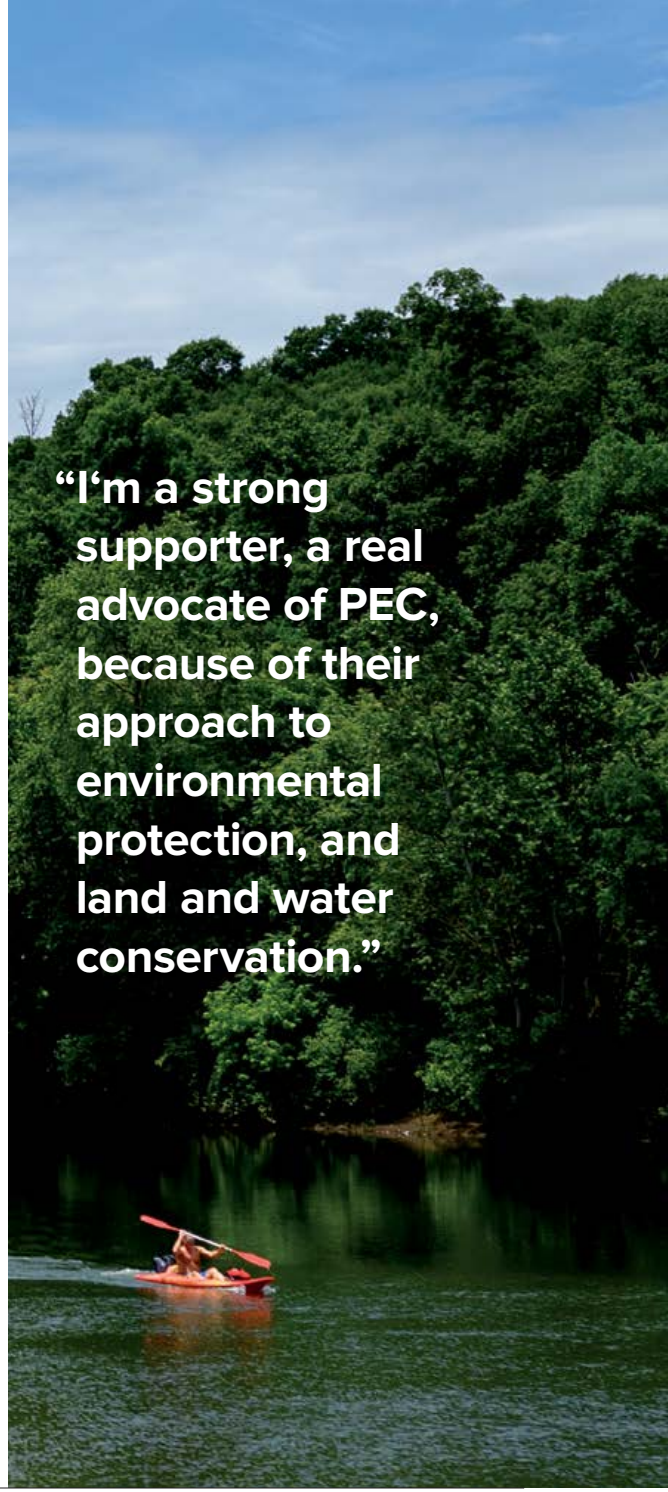
At the time, there was no group that would look at issues that affect all environmental protection and conservation issues that affect all of Pennsylvania. They wanted a group that was business friendly, that included environmental organizations and was able to tackle the major issues. At that time, it was clean water, clean air, pretty basic stuff nowadays. That was early in the 1970s. There was no one doing it, and they saw a need for it. PEC was the result.

Once PEC was created, all three gentlemen jumped right into the fray and worked with Maurice Goddard, who at that time was the top government person in charge of conservation. It didn't take them long before they were off and running.

I'm a strong supporter, a real advocate of PEC, because of their approach to environmental protection, and land and water conservation. It's very thoughtful, it's collaborative, it's reasonable, it's balanced. It takes a while for them to come out with their positions on major issues, but when they do so, it's right, it's the correct approach.

You can't get environmental protection done by government fiat. You need the involvement of the private sector, business, small groups that are plugging away every single day to improve conservation. You cannot say the government solutions are the end-all for environmental conservation. It's not. You've got to have the private sector, you've got to have business, you've got to have industry, we've got to have groups. We all have to do this, to make it happen; it has to be a collaborative effort.

I think if you look back about their accomplishments, Pennsylvania's sure come a long way in terms of acid mine discharge, AMD. It's a lot better than it used to be. Now they're very much involved in climate change, and from the energy-sector standpoint, it's nice to see them weighing in on that. They are trying to find market-oriented solutions. They're interested in carbon outcomes from the different energy sectors—coal, gas, the renewables, and nuclear. They're the only ones I know right now statewide that want the nuclear power industry to take an active role in combating climate change. I think you can look down and say that we're doing a lot better, Pennsylvania's doing, I think, fairly well in environmental protection and land and water conservation. PEC has played a very important role. ■



A Note from the Desk of the Governor

As we celebrate the 50th anniversary of the influential work of the Pennsylvania Environmental Council, I am pleased to extend congratulations and acknowledge the determined efforts of PEC's staff and its wider constituency. United, through innovation, collaboration, education, and public advocacy, the impressive result of such decades-long effort is the ongoing protection and restoration of Pennsylvania's environment.

Looking back on the Ridge—Schweiker administration years and launching legacy programs that provide environmental dividends to Pennsylvanians to this day, our gubernatorial capacity to initiate these endeavors was enhanced tremendously through the assistance of PEC. Put another way, our shared sense of civic partnership inspired countless others in communities, local governing bodies, and the private sector to lend us a hand as we engaged the state legislature for their support in these vital and historic pursuits.

Now in 2020, your missionary work of emphasizing civic leadership and reliance on vital partnerships to fight for environmental responsibility, awareness, conduct, and accountability has never been more important.

Persuading civic partners across our state to recognize and nurture these vital links between the environment, the economy, and our quality of life, which ensure the future well-being of our Commonwealth, has never been more important.

Positioning the priorities of sustainability, including reducing waste and pollution through recycling, conservation, education, and efficient use of resources, as much more than a romantic mindset—morphing them into daily behavior on the part of each and every Pennsylvanian—has never been more important.

Certainly not least is helping Pennsylvania leaders intensify their fight to wisely manage climate change. And soon. In the past 10-year period, PEC has become widely viewed as a respected voice for the establishment of policies that will guide Pennsylvania to a sound energy future. Whether driving for zero-carbon electricity generation, nudging Pennsylvania to participate in the Transportation and Climate Initiative, or seeking economy-wide reductions through a sensible, integrated carbon-pricing mechanism, public expectations are that PEC will continue to push for sound resolution of these pressing challenges.

Again, congratulations, and all the best in the years ahead!

Mark Schweiker

Pennsylvania State Archives, RG-20.48 Governor Mark Schweiker

Governor Mark Schweiker
2001—2003

Andrew McElwaine

Vice President, Sustainability
The Heinz Endowments
President, Pennsylvania Environmental Council, 1999–2005

I think Pennsylvania is a unique state, and PEC reflects that. We have a belief rooted in our Quaker heritage that if you get everybody in the room and have people of goodwill around the table, you'll get something accomplished. We still have that. There's almost always an attempt to get everybody to agree to something.

PEC's philosophy, which has been consistent going all the way back to Curt Winsor and PEC's founding in 1970, is trying to bring reasonable parties together to achieve consensus and then move on. That's something unique to Pennsylvania... it's in our roots.

PEC has an ability to work with a wide range of stakeholders to bridge the "owls vs. jobs" debate. They fill a niche that nobody else is filling. And their stock in trade is their ability to work with both Republicans and Democrats.

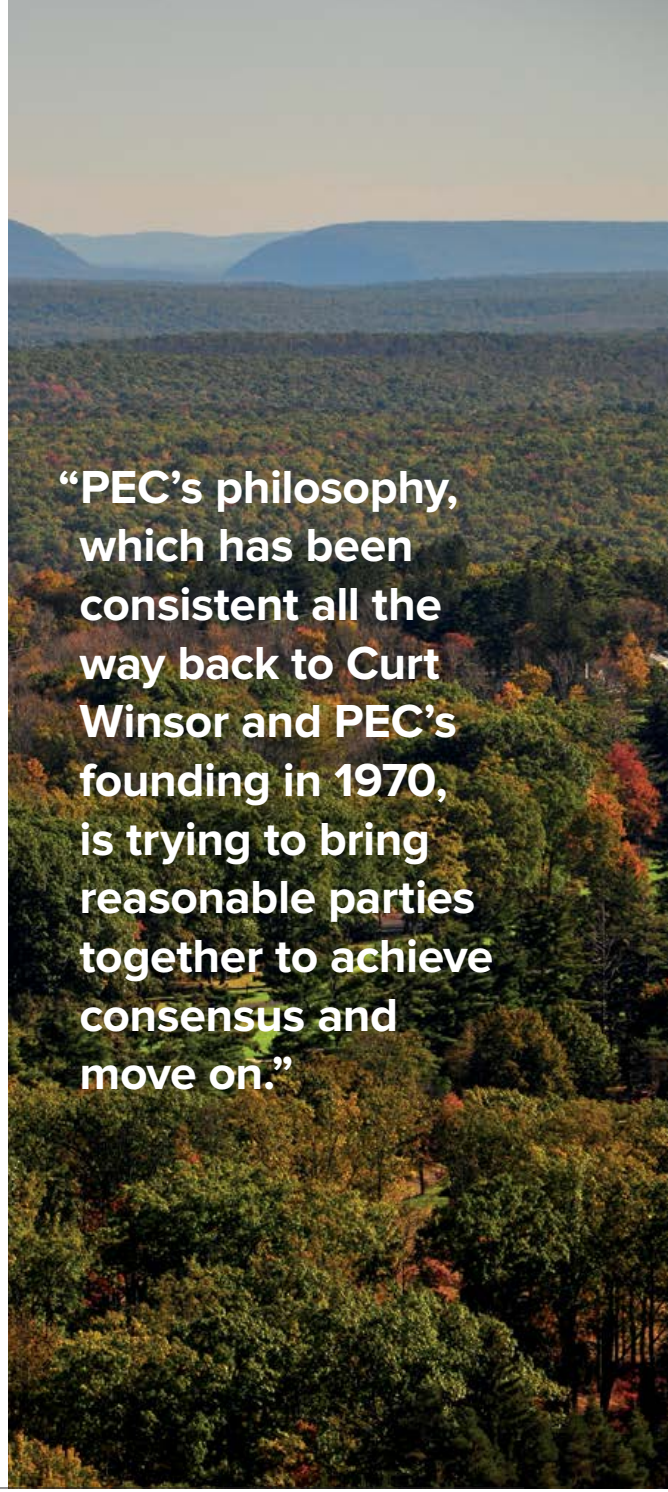
PEC's policy credentials are quite good. When PEC weighs in on an issue, it's very well thought out. I remember several secretaries of environment agencies saying, "The best comments we get are always from PEC."

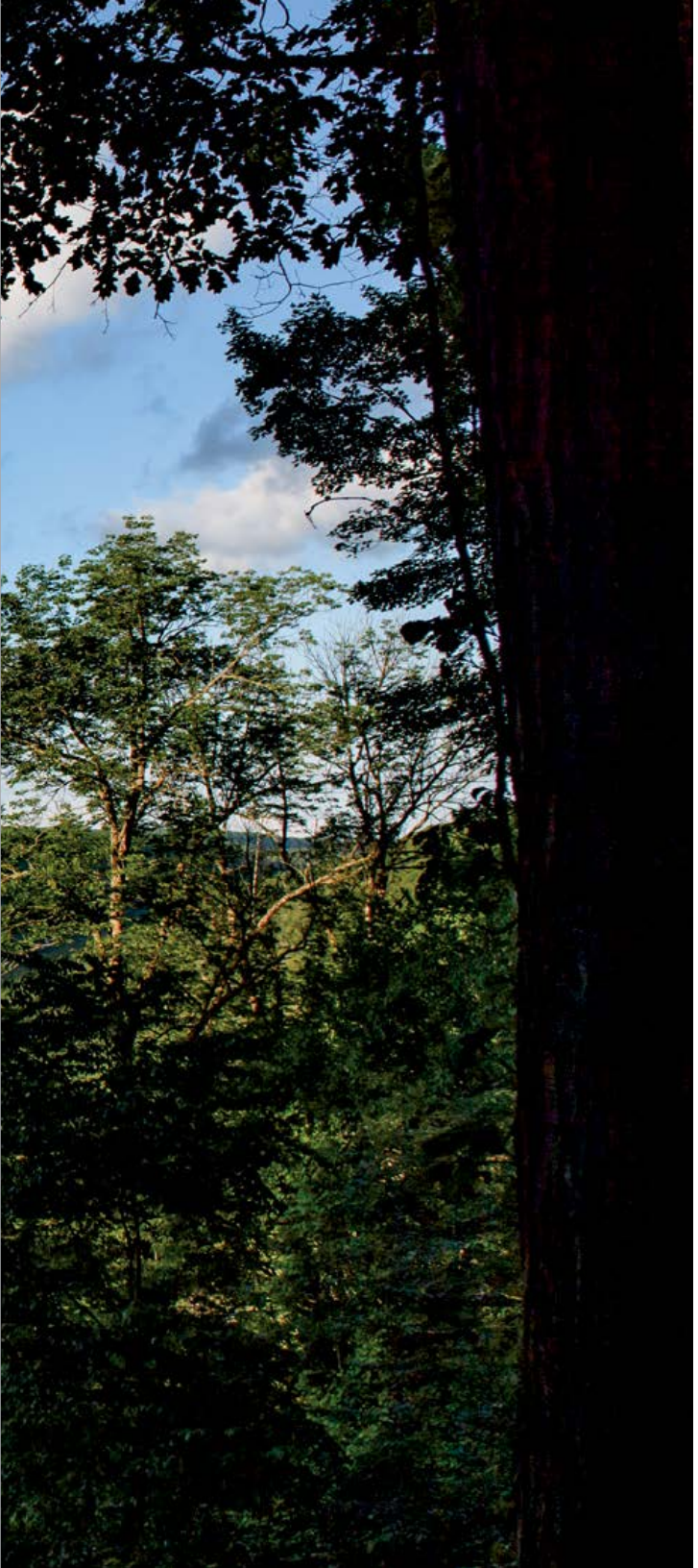
I like what we accomplished during the time I was president. We launched Growing Greener I and II, and I'm very proud of the work we did on that. Growing Greener has been a big deal for Pennsylvania. It's been a $1.5 billion investment in our natural resources and includes so many different things. Several thousand miles of acid mine discharge–impacted streams have been improved. Several hundred farms that were in the path of development are now preserved. Thousands of acres of natural lands have been preserved, and an immense amount of nutrient pollution has been taken out of the rivers and streams. We really put state dollars to work, and a lot of people got helped.

Brian Hill and I finished the first statewide Climate Action Plan. That plan has just gone through yet another update, but PEC was the facilitator for the original Pennsylvania Climate Action Plan.

PEC also was responsible for creating the system of state-sustainable energy funds. There are four of them around the state, and PEC played a critical role. That was a lot of work and committed over $100 million to renewable energy.

So what does "conservation through cooperation" mean? It means a lot of things, but PEC has always tried to conserve natural resources through partnerships. If that doesn't work, they try something else. But they always try first to build a partnership to solve a problem, and that's their stock in trade. If you ask what is PEC's brand, where does it have equity, I think that's where a lot of it lies. ■





PEC's Pennsylvania

The simple beauty and complex legacies of Penn's Woods in 2020

When Dutch and Swedish settlers first arrived in the mid-1600s, Pennsylvania consisted of more than 40,000 square miles of forest wilderness. Over the next three centuries, that wilderness all but disappeared.

What happened in between is a story of voracious consumption of natural resources that fueled the Industrial Revolution, powered the Civil War and Westward Expansion, and built the machinery of two world wars.

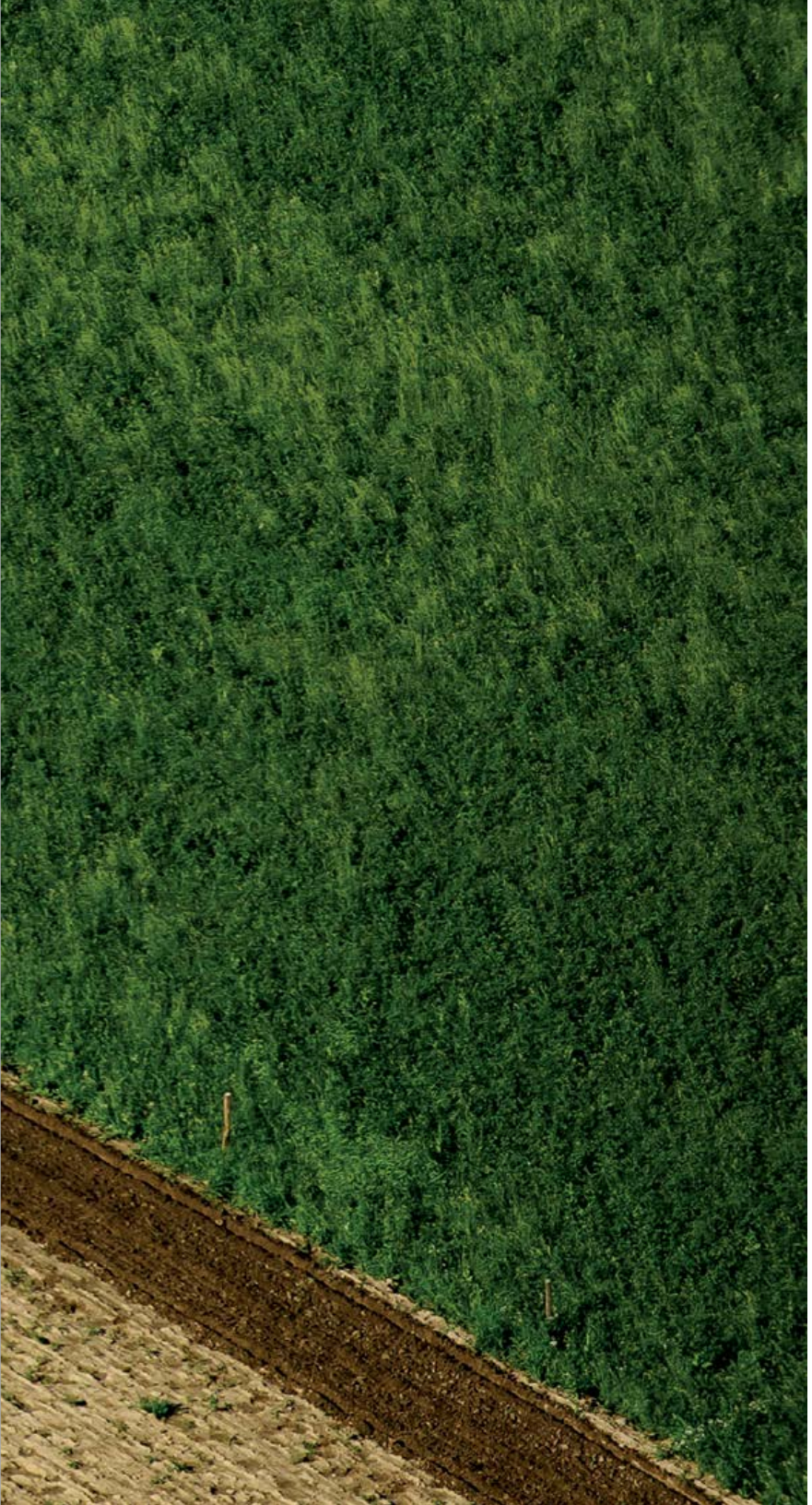
Pennsylvania's streams and rivers nearly died. Its forests were all but wiped out, only to be given new life through an awakening of public consciousness over what had been nearly lost. Pennsylvania in 2020 is the sixth-largest economy in the United States. But a visitor to any of its 121 state parks, two million acres of state park lands, or 1.5 million acres of state game lands can readily see the beauty of Penn's Woods that still endures.

The Pennsylvania Environmental Council commissioned photojournalist Jeff Swensen to capture the Pennsylvania environment as it is today—its river valleys, forests, its skies and waters, as well as the impacts of an economy that today supports nearly 13 million people, and the legacies of industrial practices old and new.

The people of Pennsylvania will find these impressions familiar as they define much of our shared landscape in 2020, and we offer them here as a time capsule for future generations to heed. ■

About Jeff Swensen

Jeff Swensen is a freelance photojournalist from Oakmont, Pennsylvania, near Pittsburgh. His work appears regularly in the *New York Times*, the *Washington Post*, and the *Wall Street Journal*, and his photographs and stories have been published in *Time* magazine, *Sports Illustrated*, *USA Today*, and hundreds of other newspapers and magazines around the world.

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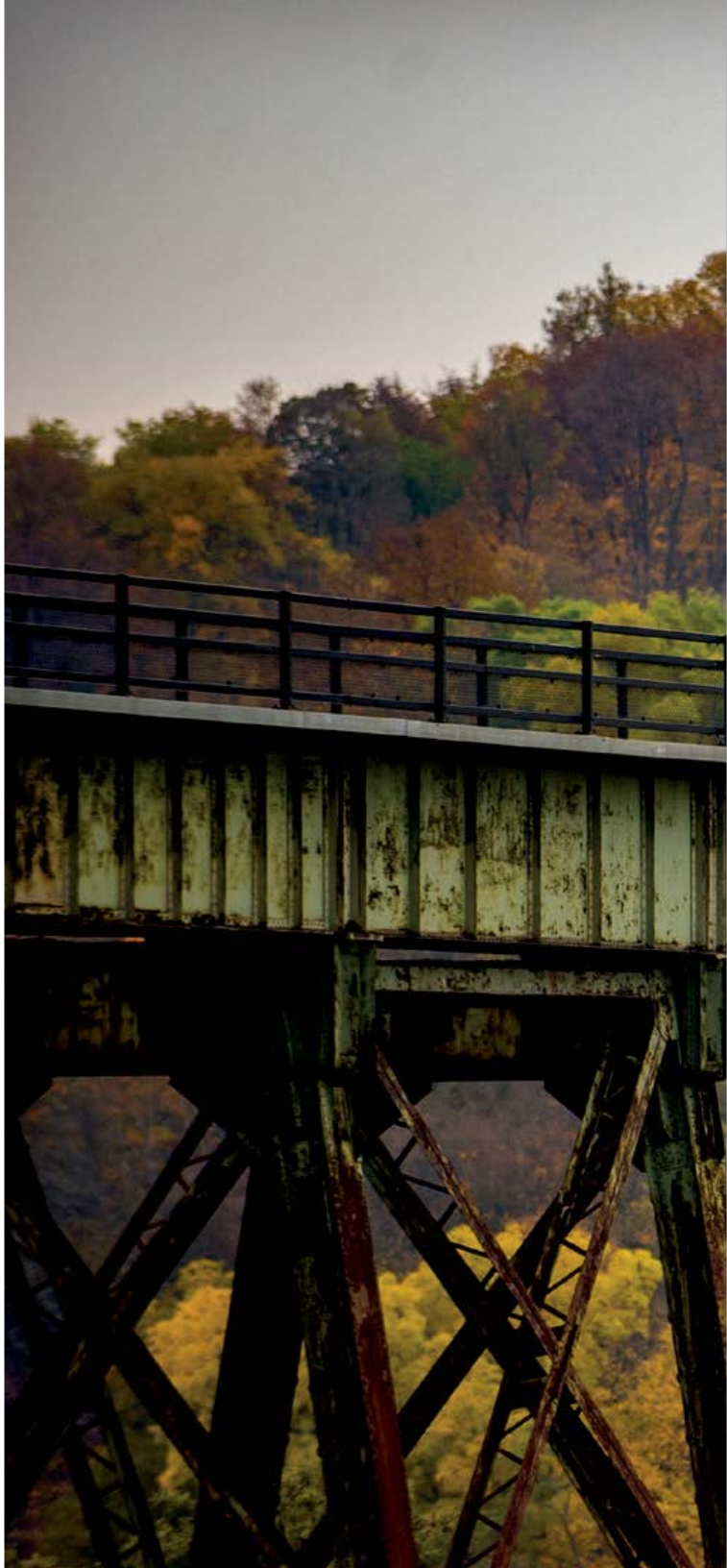
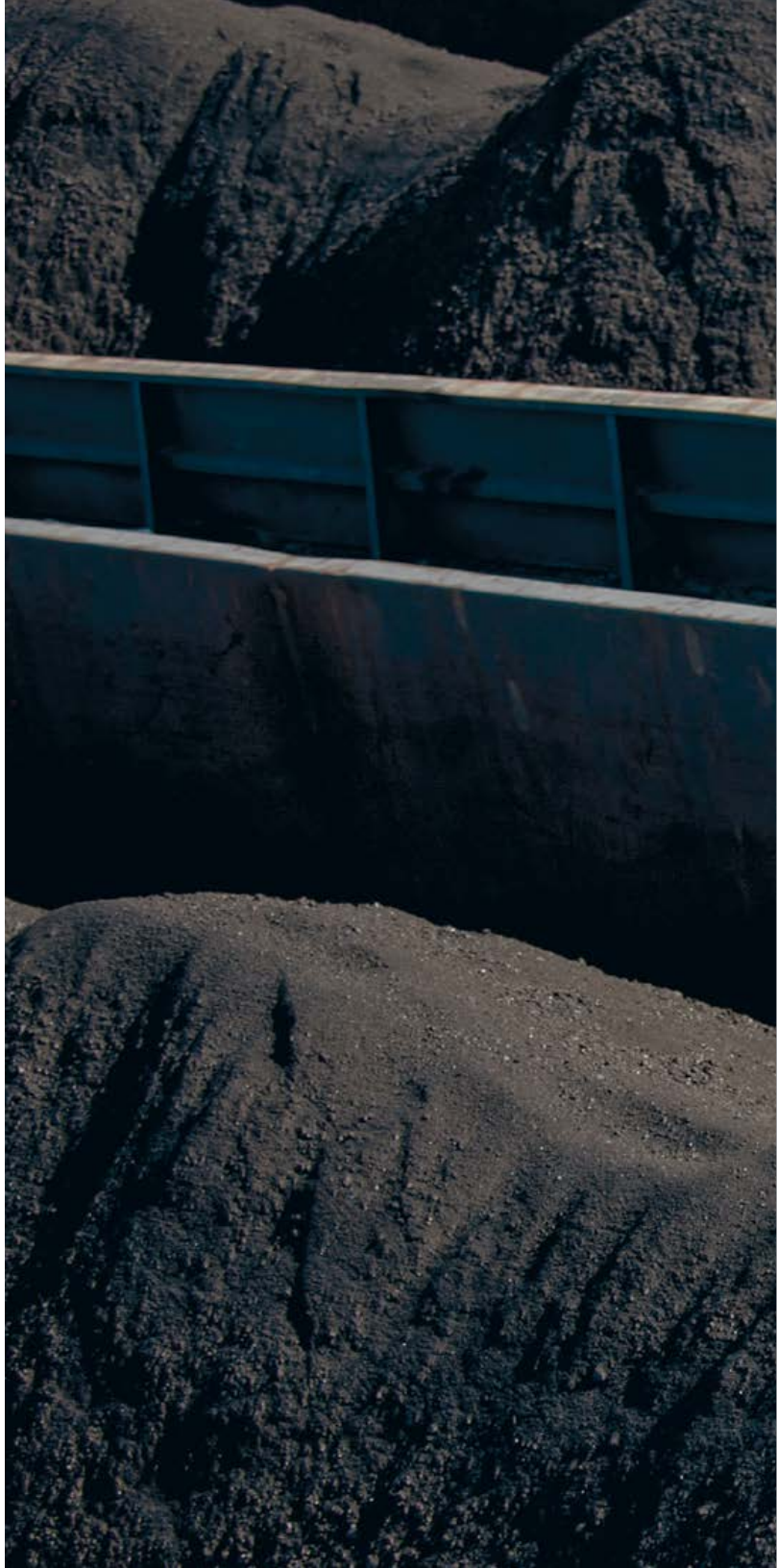
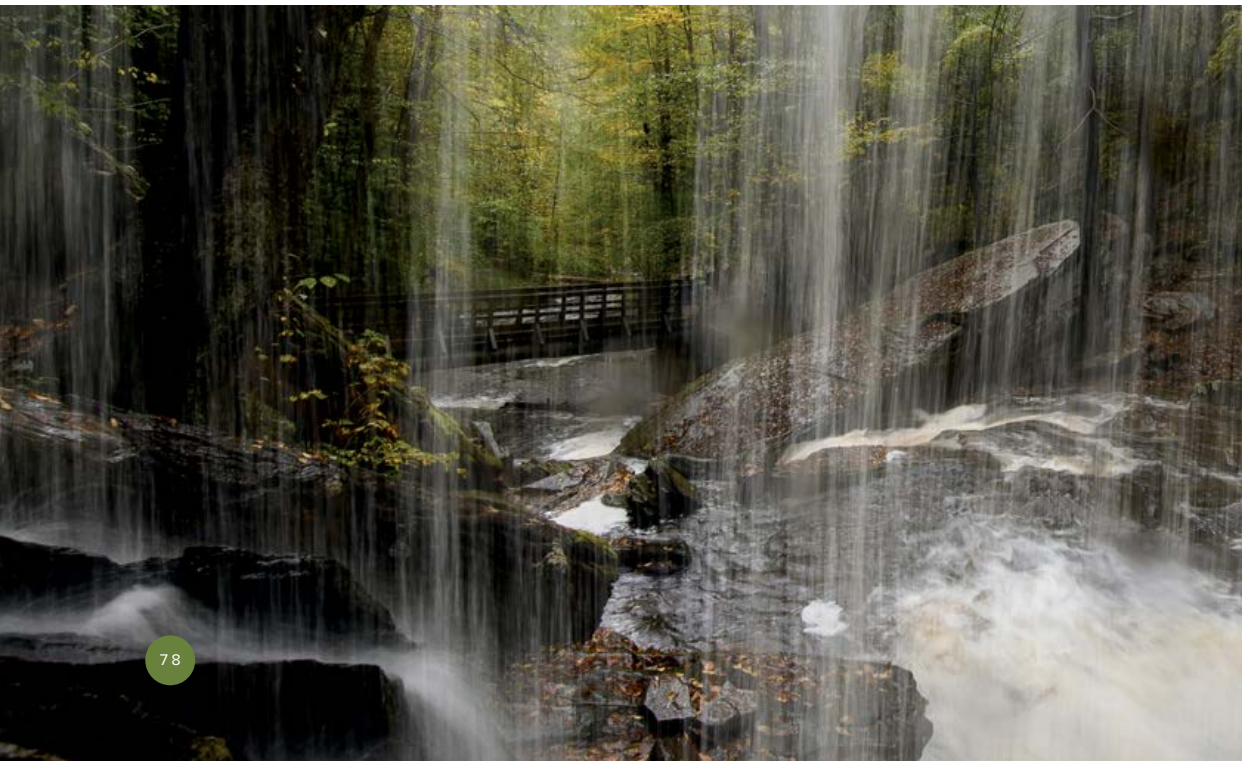
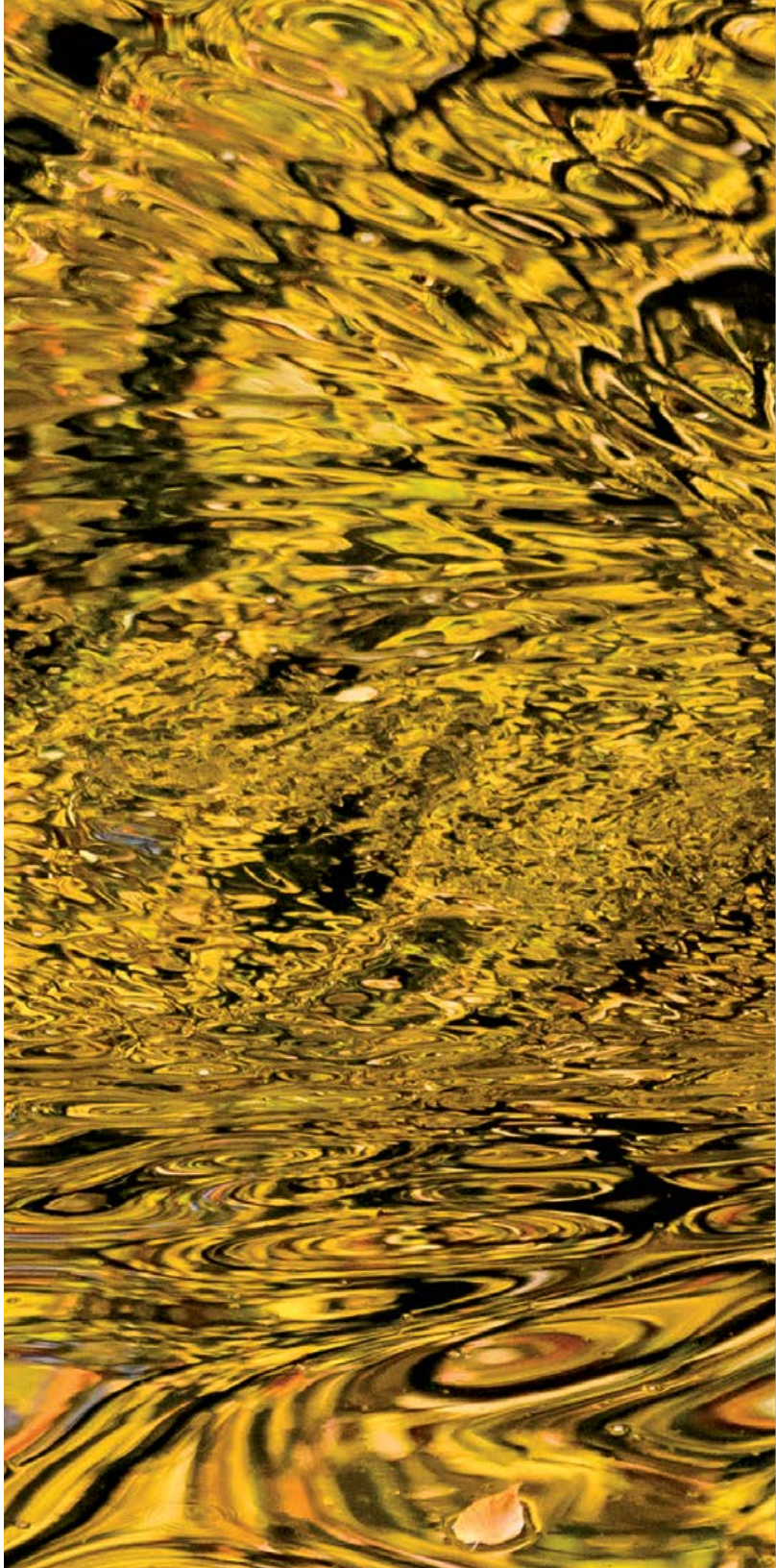
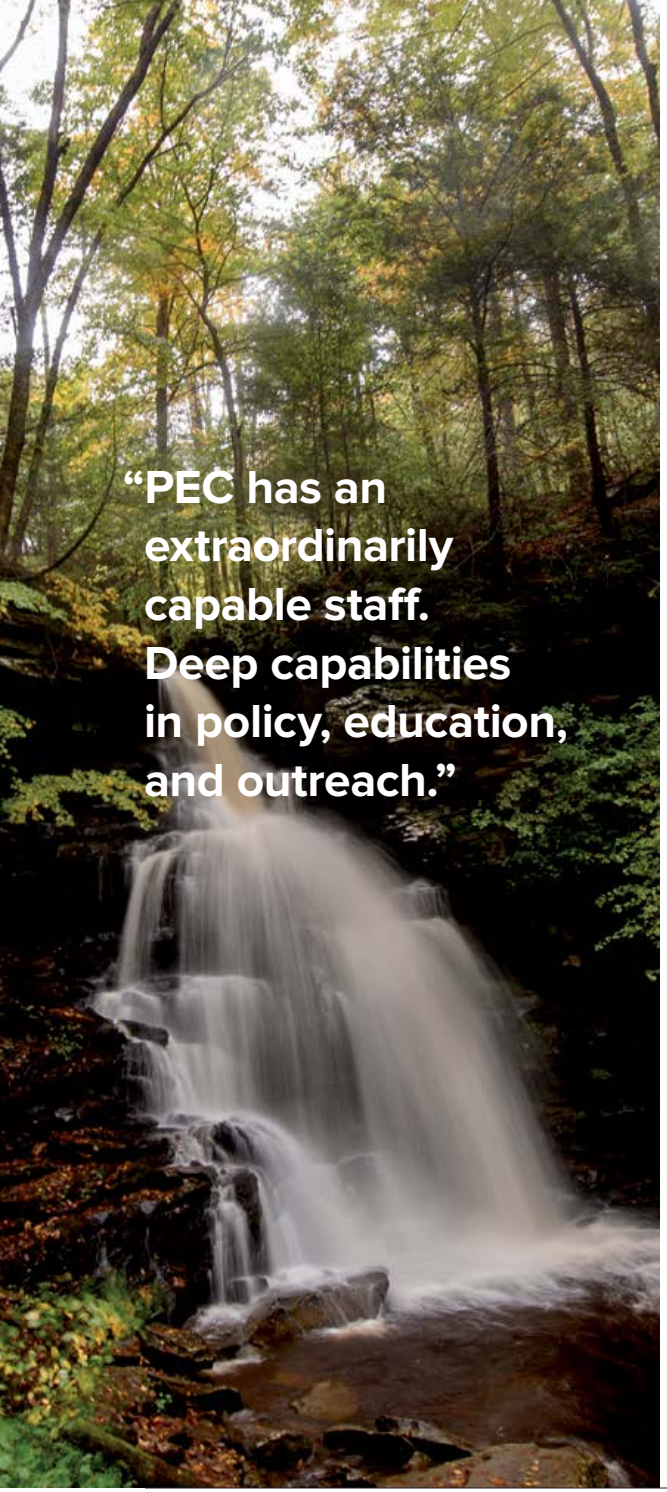










Brian Hill

Senior Program Officer, Richard King Mellon Foundation
President, Pennsylvania Environmental Council, 2005–2008
Vice President, Western Pennsylvania Office, 1989–1995
Director of Research and Education, 1987–1989

I’ll be perfectly honest. When I took the job at PEC in 1987, I was unfamiliar with the organization.

So I reached out to John Oliver, who was president of the Western Pennsylvania Conservancy. I asked him if he knew anything about PEC, and whether it was a group I should take a look at seriously. He thought that PEC was a really important organization in Pennsylvania because of its ability to bring a lot of different viewpoints together to help solve problems.

He agreed with PEC’s mission, which was to bring diverse environmental, corporate, professional, and academic perspectives together under one roof. That was a critical consideration for me, so we moved out to Philadelphia and started a job there as PEC’s director of Research and Education.

PEC has an extraordinarily capable staff with deep capabilities in policy, education, and outreach. They’re knowledgeable about watersheds. They’ve had a strong base in solid and hazardous waste issues. PEC was a leader in growth management in Pennsylvania. They have always had a very capable staff that was uncommon on a statewide basis for any organization in the late ’80s. Even into the 2000s, when I was president, you didn’t see that kind of skill set in a lot of groups. PEC had that.

They had a very eclectic board that included people from the business community, academic institutions, other nonprofit groups, the League of Women Voters, etc. That combination of people led to very interesting, respectful conversations about public policy.

I think one of the critical things PEC can do is get in the door. They can have the conversations that shape the dialogue. Being there means that you have an opportunity to have some influence, maybe not as much as you would like, but you have an influence. I’ve seen where our determination on those things actually has made a difference, so I know that it works.

There are people who are detractors of that approach. But I think that it’s made for an effective organization and a respected organization for people who have a high-level understanding of environmental issues.

What I always said to them was, “I understand your reservations. I’m passionate about the environment. I understand that you think there are certain people that don’t deserve to be at the table, because of who they work for or where they come from. I don’t share that particular perspective. I think that you need to have people in the room so you can have a worthwhile conversation that will lead to public policy, that will have greater traction for a wider number of people.

I’d say that’s a big part of PEC’s DNA… what PEC is all about. ■

Paul King

President and CEO, 2010–2014
Board of Directors, 1988–2014
Chairman of the Board, 1998–2008

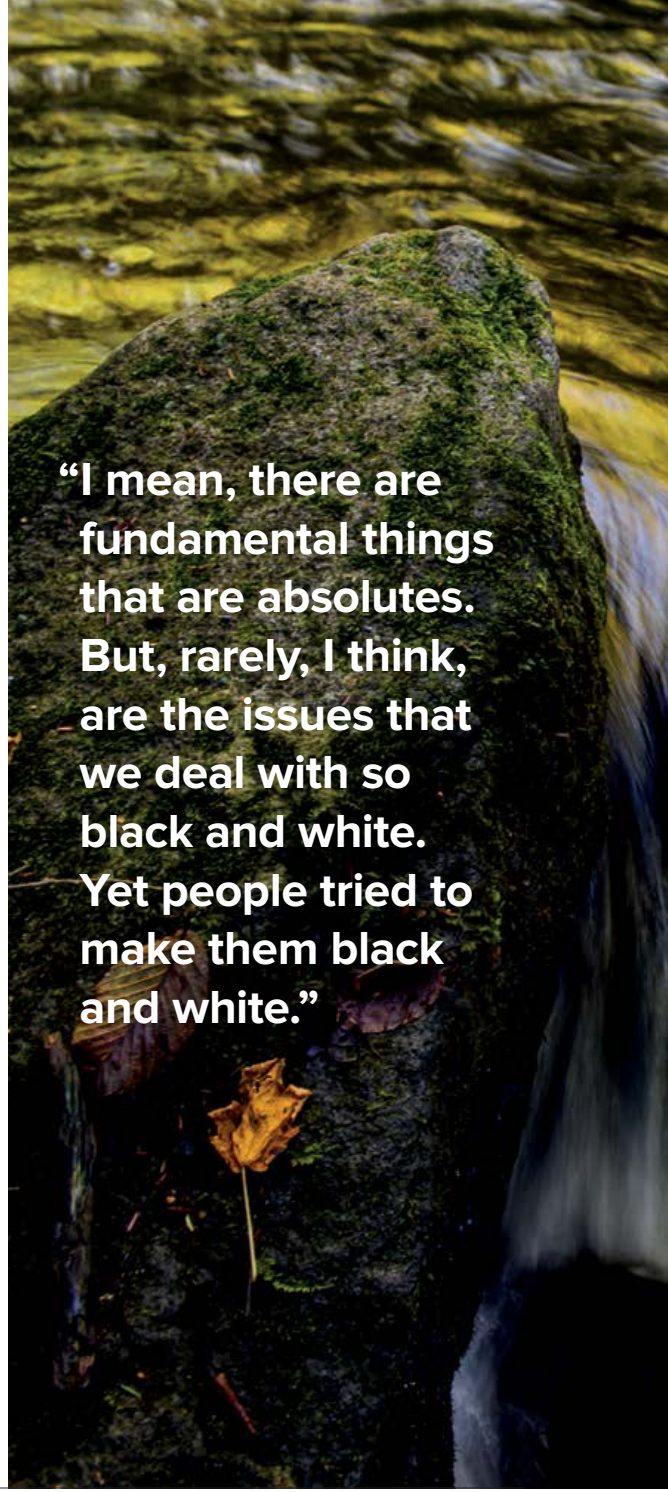
The most important thing I would try to convey about PEC is its "conservation through cooperation theme." And I think the concept of civility underlies all of PEC's activities for these past 50 years.

We try to treat each constituent with a dignity and respect that a lot of other people or organizations don't. And even though I've been involved in environmental issues for too many years to count, the fact that so much of the debate is acrimonious and hostile was never fun for me. So finding an organization where the results and how you got there mattered made a big difference to me.

I think it goes back to the Winsors, who believed there were problems to be solved in a rational, scientific way and not hammered at. They were good people. And I think they also recognized what a lot of groups haven't or refuse to, which is that rarely is there a silver bullet piece of legislation that's going to pass and solve the problem. PEC has long recognized and been chastised mightily because we would often take a half, a third, or even a quarter of a loaf as a first step along the journey to fixing a problem.

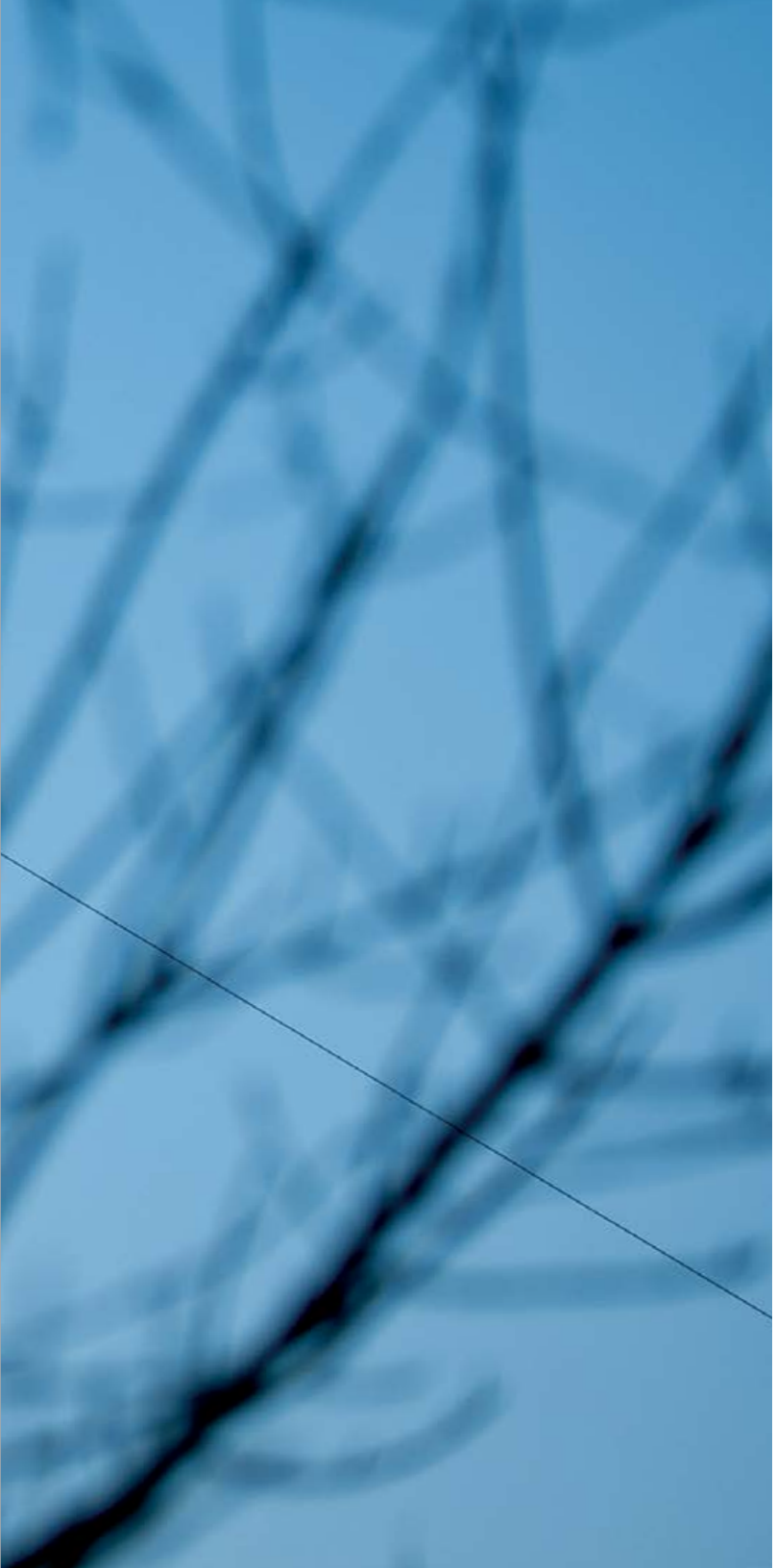
You have to go back to that first 10 to 15 years, to the Winsors and others who first breathed life into this as a different kind of organization. We've been able to keep that spirit alive through the selection of good people and good board members. We've had some challenges with people who wanted to take it a different path, but people like Eleanor, Andrew, Brian, and now Davitt really understand where that soul is and believed in it. I think we picked super people to help live that founding philosophy. I think the individual staff people have been terrific, and I think everybody who's been there for the last 50 years has tried to stay true to that underlying philosophy. They made it work.

There are some things that are absolutes. But rarely, I think, are the issues that we deal with so black and white. Yet people tried to make them black and white. You have to understand the other person's point of view, and you have to recognize that their principles may not be something they're going to give up totally to you, so you have to find that common ground and hopefully take steps toward solving the problem based on that common foundation. ■



The Pennsylvania Gas Rush

Creating a Path Forward for Energy Security, the Economy... and the Environment



When PEC was founded in 1970, few people outside the world of geology and fossil fuel exploration had ever heard of the Marcellus Shale.

Discovered in 1839 near the town of Marcellus, New York, this ancient black shale was believed to contain vast deposits of natural gas trapped within porous rock a mile or more beneath the surface of the Appalachian Basin in a formation that stretched southwest through Pennsylvania, Ohio, West Virginia, Maryland, and Virginia. The Marcellus Shale is believed to be one of the largest known gas fields in the world, and beneath it, the Utica Shale, a shale gas formation even larger and deeper. Combined, these two gas fields held promise for a domestic source of energy that would last for decades.

However, with no conventional gas drilling technology for extracting the gas, the Marcellus and Utica Shales lay dormant and untapped. That is, until 2004, when engineers at Range Resources in Washington County, Pennsylvania, adapted an unconventional drilling method used in the gas fields of Texas. This new technique employed horizontal drilling and a technology called "hydraulic fracturing" to shatter the shale formation and release the gas under pressure, forcing it into wells scattered across the countryside.

Today, the Marcellus and Utica Shale formations are believed to contain 540 trillion cubic feet of natural gas, about 940 million barrels of oil, and 208 million barrels of natural gas liquids, enough to meet U.S. energy demand for decades, as well as provide an abundant feedstock for raw materials in global manufacturing.

Drilling operations began in earnest in 2008 on wells that are anticipated to remain productive for the next quarter-century. With a wellhead value approaching one trillion dollars, shale gas held great promise as a new and booming industry that would create new jobs and attract billions in private investment to Pennsylvania.

"I don't think we had an appreciation for how big it actually was going to be," says John Walliser, PEC's senior vice president of legal and government affairs. "And I think it really took a lot of people in Pennsylvania by surprise."

"I remember basically finding out about the Marcellus," recalls Scott Perry, deputy secretary of oil and gas management for the Pennsylvania Department of Environmental Protection.

"I was a bit perplexed that something ancient that was sitting under our feet caught everybody by surprise... that this resource that had been known for so many years had basically disappeared from our minds. And then, of course, your heart rate picked up when you thought about what it meant for DEP's role in managing this new development."

With an incursion reminiscent of the California Gold Rush, gas drilling operations descended on Pennsylvania in numbers that caught regulators and community leaders off guard. "The industry had a couple of years head start on us," recalls Mr. Perry, "and we needed to adapt quickly, which is possible, but a challenge for government to do."

The environmental community in Pennsylvania also found themselves overwhelmed by the sudden and unanticipated drilling activity.

"We were very concerned about lands that we had already purchased and conveyed," says Cynthia Carrow, vice president for government and community relations with the Western Pennsylvania Conservancy. "One of our biggest concerns was water and what we thought were insufficient setbacks from streams and rivers... lots of water being withdrawn from springs and streams and so forth. And we felt that would ultimately have a very negative cumulative impact."

"One of our biggest concerns was water and what we thought were insufficient setbacks from streams and rivers..."

A Legacy of Drilling

Drilling for natural gas is nothing new to Pennsylvania. Indeed, since the first oil well was drilled near Titusville in 1859, oil and gas have been extracted and shipped to refineries in other parts of the country. Even horizontal drilling and hydraulic fracturing had been in use for many years before they were ever utilized in Pennsylvania.

So what was different this time?

"It was something that was primarily happening down in Texas and Oklahoma, and the kind of issues or the way they were operating there is completely different from how they operate here," recalls Mr. Walliser. "In those states, you can consider storage of produced and flowback water just by having a pit out on an isolated well pad because the area is dry and flat. There are not frequent rain events. It's not in close proximity to houses or other things. That doesn't happen in Pennsylvania."

"I think there were three things that made us different," says John Hines, government relations advisor for Shell Oil Company and a member of the PEC board of directors. "One is the population density where our plays are taking place. Basically we are developing these a lot of times where people are, so we have a large amount of leaseholders."

Mr. Hines, who previously served in the Pennsylvania Department of Environmental Protection before joining Shell, has the perspective of both the government regulator and the regulated industry.

"Two is geography and topography," he continues. "In many of the areas where unconventional development has taken place, we have hills. At the bottom of those hills we have streams. And we have a long-standing environmental history in Pennsylvania. And we had some rules... the Clean Streams Law, for example, that has been around for decades. So there was a solid grounding on how to take a look at these issues."

But as Pennsylvania grappled with the impacts of shale gas development, other states in the Marcellus formation and elsewhere took diverging positions on hydraulic fracturing, or "fracking." Moratoriums on fracking put a halt to gas development in New York, Vermont, and Maryland, as well as in other parts of the world.

"The development was already rapidly occurring," recalls PEC's Walliser. "Our feeling was that, given that reality, and recognizing Pennsylvania for what it is—an energy state and an energy exporter—it was critical to engage in the dialogue over how to improve the regulations and be at the table rather than take an obstructionist position. It was important to get safeguards in place, given all the challenges, and focus on constant improvement moving forward."

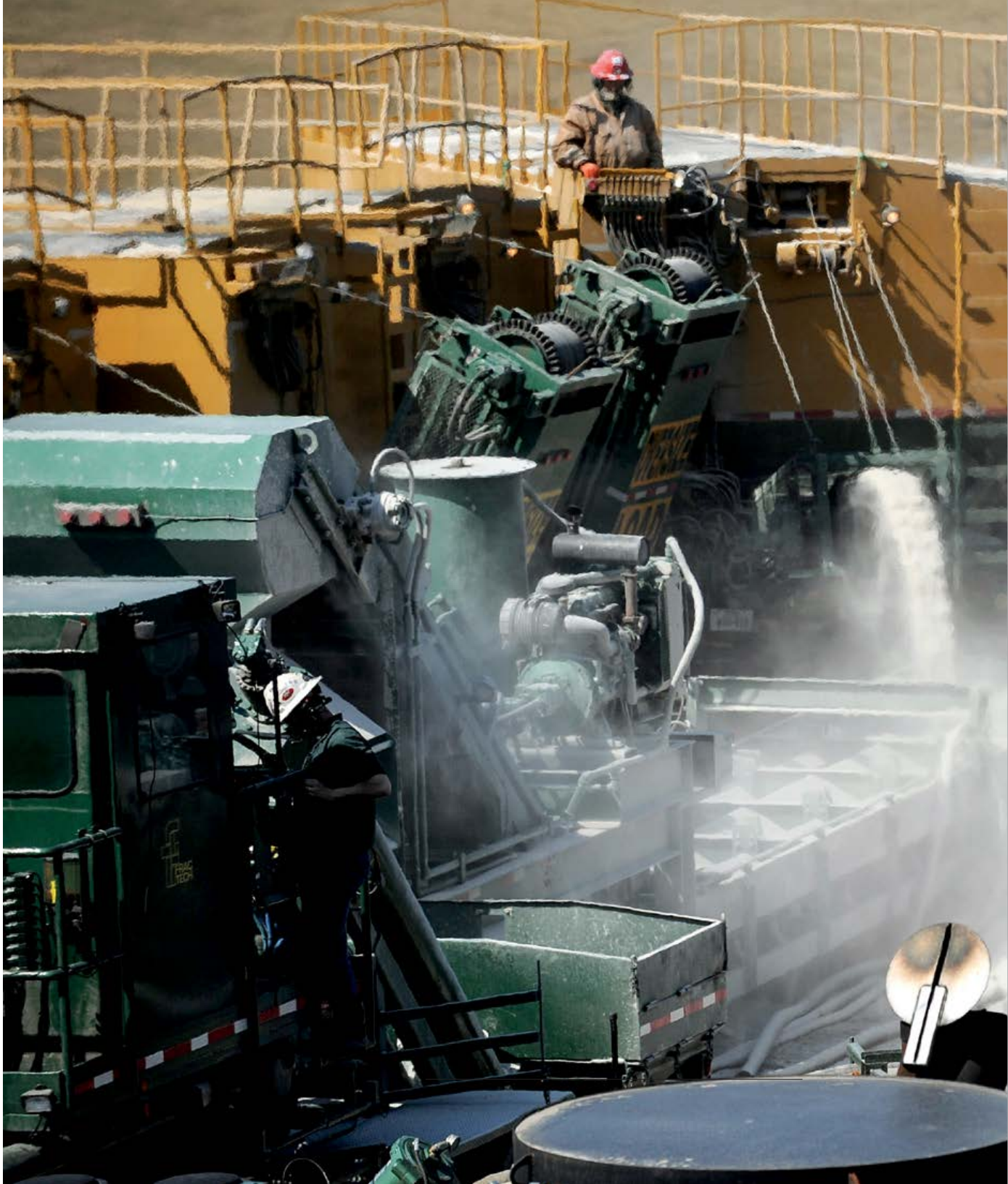
"In Pennsylvania, shale gas development, oil and gas development, is a lawful activity," says Mr. Perry. "But our constitution and our other laws demand that it basically leave no lasting imprint on Pennsylvania's environment... that these operations pretty much should be performed flawlessly... that our air, land, and water are preserved, and indeed improved upon, as a result of the work we do."

"It Could Be Done the Right Way"

By 2010, it was clear that Pennsylvania was on the threshold of an environmental and economic dilemma—support the economic benefits that would surely come to communities in sore need of a stimulus, or eliminate the environmental uncertainty of fracking and impose a moratorium or highly restrictive regulations on drilling and extraction.

"We want to have a regulatory program that has goals," adds Mr. Perry. "Not just minimizing impacts, but preventing impacts and enacting policies that actually can be beneficial to Pennsylvania's environment."

"In Pennsylvania, shale gas development, oil and gas development, is a lawful activity," says Mr. Perry. "But our constitution and our other laws demand that it basically leave no lasting imprint on Pennsylvania's environment… that these operations pretty much should be performed flawlessly… that our air, land, and water are preserved, and indeed improved upon, as a result of the work we do."



"Based on leading practices from the industry and on our conversations with other environmental groups like the Environmental Defense Fund, who are much more experienced in these types of issues," says Mr. Walliser, "we really felt like it could be done the right way."

Governor Tom Corbett appointed a blue-ribbon panel to examine the issue of natural gas development in Pennsylvania and make recommendations to the General Assembly. The Marcellus Shale Advisory Commission comprised a cross-section of industry and environmental experts, policy experts, and other stakeholders, including Carrow and PEC Chairman Tony Bartolomeo.

That same year, PEC also stepped in and held a statewide conference of stakeholders. The Marcellus Shale Policy Conference, held at Duquesne University, brought together regulators, industry officials, environmental advocates, and community leaders, as well as regulators from other gas-producing states and the scientific community, to share their experiences with fracking and other community and environmental impacts. The result of this two-day conference was a major report, "Developing the Marcellus Shale: Environmental Policy and Planning Recommendations for the Development of the Marcellus Shale Play in Pennsylvania," which was submitted to the governor's advisory commission for consideration. The report detailed specific recommendations for amending the Pennsylvania Oil & Gas Act to include the environmental threats associated with unconventional drilling and extraction, many of which were later adopted by the General Assembly when Act 13 was signed into law by Governor Corbett.

Not long after news of Pennsylvania's vast gas reserves and the drilling techniques being used to extract them spread across the globe, the eyes of the world were suddenly on PEC.

"Most other groups have taken a position that there should be a ban or a moratorium on this activity," he adds. "PEC has taken an alternative approach, where they've dug into these issues, they've analyzed other states' rules, they've done detailed analyses along with the Environmental Defense Fund, on the cost to do certain activities, and the benefits associated with it, and provide the DEP with meaningful practical advice on how we can build a superior regulatory program."

"I think PEC's involvement has played a large role in capturing the attention of the industry and the importance of sound and responsible environmental safeguards as shale gas is being developed," says Ms. Carrow. "PEC has played a big role in bringing industry around to having an environmental conscience."

Not long after news of Pennsylvania's vast gas reserves and the drilling techniques being used to extract them spread across the globe, the eyes of the world were suddenly on PEC.

"We've met with people from South Africa, Australia, Britain, and Germany, as well as one or two South American delegations," recalls Walliser. "We've got the eyes of the world on us for this issue. It's not just the U.S."

Assistance for Gas Fields Property Owners

With so much private property connected to drilling, landowners were quickly besieged by drilling operations and private attorneys seeking to negotiate the mineral rights, a situation that left many property owners confused and uncertain about where to turn for help.

PEC created a new tool to help them understand their options and make more informed choices: the Marcellus Shale Lease Guide. This guide included a set of lease guidelines and principles that a property owner could use with the help of their own attorney to understand the environmental risks and rewards of mineral rights leasing.

In addition, PEC, the Clean Air Task Force, and other natural gas industry stakeholders saw an opportunity to create a forum to advance best practices in operations and environmental stewardship in the development of the Marcellus Shale. The Center for Responsible Shale Development was conceived to bring together environmental and gas industry leaders committed to driving continuous innovation and improvement of shale development practices in Pennsylvania and beyond.

"I think PEC was a calming voice," says Shell's Hines, now a member of the PEC board of directors. "PEC played the role of the 'rational middle' where these discussions needed to take place. They pointed out issues when issues needed to be pointed out and rectified. And they moved forward for us to establish the Center for Responsible Shale Development.

"…landowners were quickly besieged by drilling operations and private attorneys seeking to negotiate the mineral rights, a situation that left many property owners confused and uncertain where to turn for help."

Assessing PEC's Impact

So, looking back, what kind of an impact did PEC make in the promulgation of regulations and securing an effective outcome for deep shale drilling in Pennsylvania?

"PEC had been riding along with the DEP throughout this entire journey," says DEP's Perry. "They were really one of the only groups that played a truly constructive role in shaping the policies in Pennsylvania for how shale gas development is going to occur."

"I think people knew that we were going to come to the table and be open," recalls Mr. Walliser. "Both about what we were looking for from an environmental perspective, but also the outcomes that we were hoping to accomplish in terms of protection measures and objectives. They knew that we were willing to listen and we were willing to learn.

"There was actually a very close working partnership between PEC, the Environmental Defense Fund, and several of the operators to try to hash out what would be the best way to frame sub-surface analysis requirements in the regulation to ensure that you're maintaining well integrity and groundwater protection. We wouldn't have been able to have done that if we had come in and just said no." ■

Don Welsh

Executive Director
Environmental Council of the States
President, Pennsylvania Environmental Council, 2009–2010

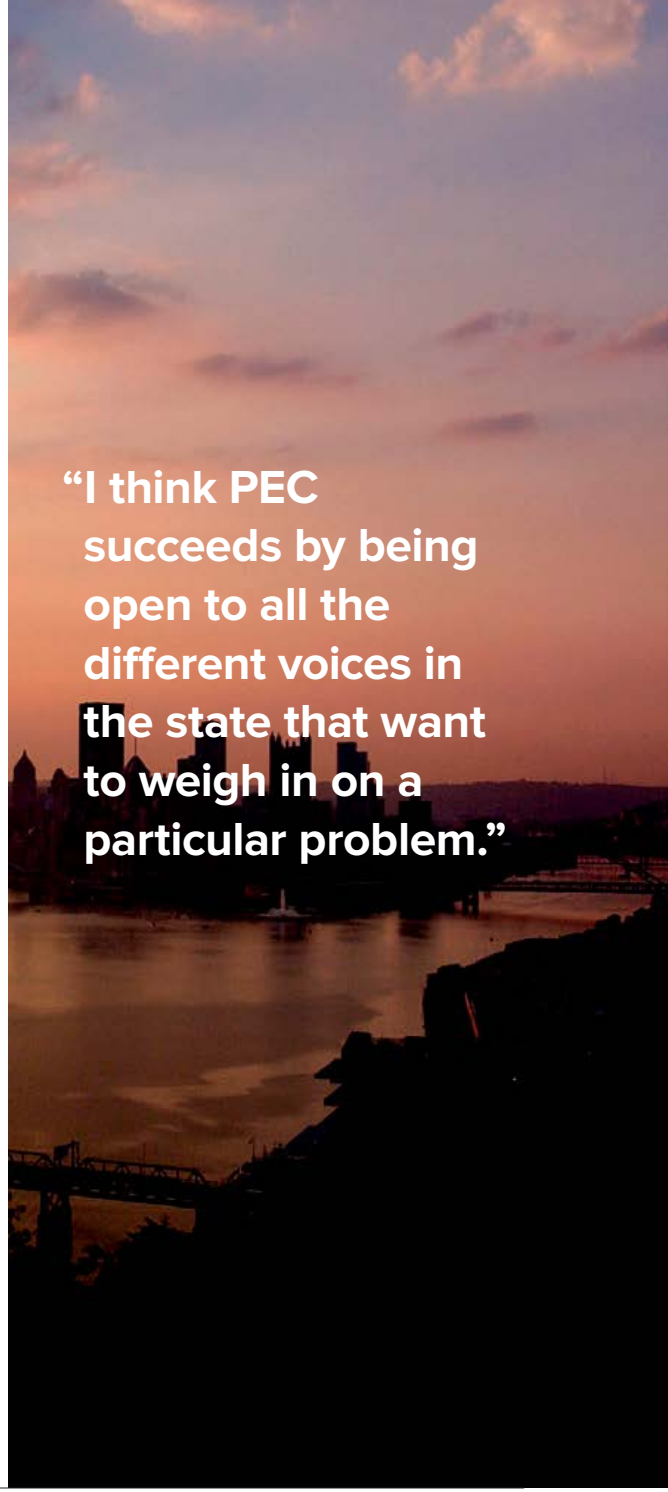
I'm a big proponent of working from the middle—get everybody around the table, cooperate and collaborate. I've never been chased away by the thought that you're sitting at the table with the enemy. I don't think there is an enemy.

PEC has always tried to get everybody's voice heard at the table. Too often, other groups that are active in environmental issues are trying to make headlines, and to make headlines, you sometimes have to pick a fight. I think PEC succeeds by being open to all the different voices in the state that want to weigh in on a particular problem and by serving as a neutral convener that can invite anybody to a meeting. They also believe that being open to different points of view is a good opportunity for everyone to weigh in on a solution, rather than to get beaten up or to beat up on somebody else.

I remember the struggles over Marcellus Shale when that was first becoming a real hot issue. When that started to become newsworthy, a lot of people were taking sides. Do we want to stop all fracking, or do we think this is great for Pennsylvania? PEC effectively played the role of a neutral convener in getting the Marcellus Shale interests around the table to try to find a way of having the benefits from a cleaner fuel and the benefits of economic development, but doing it in the right way so that it doesn't leave a legacy of contamination, which happened when oil was originally developed and when coal was being exploited.

PEC has defined itself as "conservation through cooperation." If you want to make a difference in the environment, or if you are a player in some industry or in a government position where you're really trying to make a difference, PEC is the space where you can really have an opportunity to help foster change. In many other roles that you get called on to play, you can end up on one side or the other of what essentially becomes a food fight, and that's less productive. I think the role that PEC has played as an environmental nonprofit is a place where the name of the game is to get something done, rather than to just make a point.

I understand why other people think that's a bad thing, but I firmly believe it's the right thing. Some feel that it means you're not "gung-ho" for the environment if you're willing to sit down and talk to people who they might view as the enemy or the other side. I think the mistake is viewing anybody like the enemy or the other side. Everybody in Pennsylvania who has a role to play in protecting the environment, even if you're an extraction industry president or somebody who has a smokestack or an outfall pipe, it's still part of your job to be part of the environmental protection system, and I think the answers that are going to last and work best are the ones that work best for everybody. ■



“I think climate change is the biggest issue that we face over the next 50 years. We’re already seeing some of the impact of that in terms of flooding, in terms of West Nile Virus, invasive species.”

Patrick McDonnell

Secretary, Pennsylvania Department of Environmental Protection

I’ve been here over 22 years now and became acquainted with the Pennsylvania Environmental Council back at the beginning of my DEP career. One of the first jobs I had with the department was doing pollution prevention and energy work, which PEC was very interested in.

Both as individuals and as an organization, PEC can be relied upon to help us think through and solve some of the biggest issues that we face. Davitt Woodwell, in particular, has been incredibly helpful as we’ve looked at the issues related to the Chesapeake Bay this year and helping us craft the solution.

We have a long-lasting partnership with PEC on the Governor’s Awards for Environmental Excellence in recognizing groups and individuals throughout the state for their environmental achievements. But leveraging those programs as real examples of excellence allows us to achieve other environmental wins, which is critical.

As we look to the future, I certainly think climate change is the biggest issue that we face over the next 50 years. We’re already seeing some of the impact of that in terms of flooding, West Nile Virus, and invasive species. As an organization, it takes a lot of work to bring together all the stakeholders that we need to arrive at solutions that can be implemented. We have to bring people on board as partners in order to meet the environmental challenges we face head on, with climate change being one of those.

PEC is a very trusted voice in the environmental community, within the legislature, and within industry in providing a perspective on the challenges that we face and solutions to help meet them. Some of their recent work on deep decarbonization is a great example of bringing in voices from all over the environmental, industry, and government communities and having a real conversation about how we should address climate change going forward. ■

Cindy Adams Dunn

Secretary, Pennsylvania Department of Conservation and Natural Resources
Board of Directors, Pennsylvania Environmental Council, 1999–2001

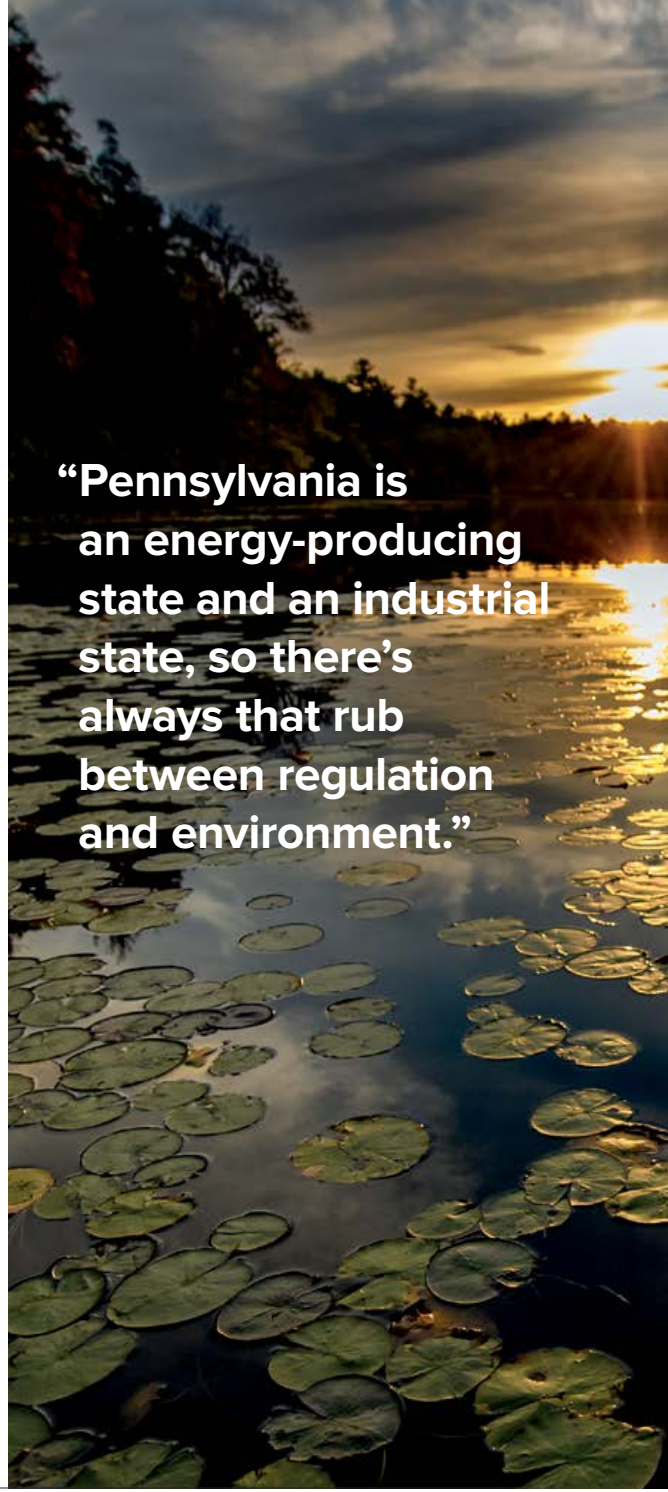
In my role at DCNR, I value PEC as a true partner on so many of our strategic initiatives and with so much of our work. Our Conservation Landscape Initiative really brings together the values of community, economic development, recreation, and the natural attributes of the beautiful landscapes of Pennsylvania, like the Laurel Highlands and the Poconos. So PEC's role as our external lead, combined with our role at DCNR, really creates a very sophisticated approach to conservation.

We work with PEC a lot on policy issues, and they have been an ongoing partner with us on the emerging issues of the day. One of the biggest challenges facing Pennsylvania, our country, and the world is, of course, climate change, and PEC is deeply engaged on many policy issues around that, as are DCNR and DEP.

PEC has the unique ability to pull various sectors together around tough environmental issues. Pennsylvania by and large has been a state where people care about the environment, but there are a lot of different points of view. Pennsylvania is an energy-producing state and an industrial state, so there's always that rub between regulation and the environment. Finding a pathway toward solutions for a clean environment with the support, understanding, and engagement of a broad array of the public is often hard. I think PEC does an excellent job with policy education and engagement and by having a statewide presence in the environmental issues that people care about.

PEC has its eye on finding solutions and moving forward. They're in it for the long haul and looking for long-term solutions, recognizing that in each issue, each legislature, or each governor, there's a set of opportunities and a set of challenges. But they understand how to keep moving that environmental and conservation work forward, given the opportunities and challenges of the time. Sometimes the progress you make isn't perfect, but you can advance the ball. I think PEC is really good at doing that, while keeping in mind the long game.

Now the dynamic is fantastic for Pennsylvania. Recreational investments pay us back. Pennsylvania is fifth in the nation in generating revenue from outdoor recreation. So PEC's ability to pull in the outdoor industry and weave that dialogue into the investment side so that legislators and future governors understand that the importance of that investment is actually great for Pennsylvania's economy. It's a complex, multidisciplinary approach to funding for recreation and the environment, but PEC is uniquely poised to make this happen. ■



CAPITOL IDEAS

Environmental Policy Experts on the Issues in 2020 and Beyond

The Capitol Building in Harrisburg sits majestically overlooking the Susquehanna River and the great Pennsylvania landscape that lies beyond. Inside, the people's business takes center stage in all three branches of state government.

While Pennsylvania's elected leaders serve at the pleasure of the voters, a community of professional policy experts skilled in both the art of politics and the business of environmental protection help make the wheels of government turn long before and long after members of the General Assembly complete their public service. Their experience, insight, and passion are the essential, albeit often overlooked, ingredients in helping government fulfill its obligation to the people of Pennsylvania.

They represent virtually every interest and constituency in environmental protection, conservation, and stewardship across the Commonwealth. And if politics truly is the art of the possible, these policy experts help lawmakers make possible the promise of Pennsylvania's Environmental Rights Amendment—to ensure that the citizens of Pennsylvania are guaranteed the right to "clean air, pure water, and the preservation of the natural, scenic, historic, and aesthetic values of the environment."

We sat down with five environmental policy pros from business, government, and the nonprofit sectors in Harrisburg to talk about the issues facing Pennsylvania today, as well as what they predict for the years ahead.

The Panel

John Hines, *Government Relations Advisor, Shell Oil Company; Board of Directors, Pennsylvania Environmental Council*

Joanne Kilgour, *Director, Pennsylvania Chapter, Sierra Club*

Jessica Shirley, *Policy Director, Pennsylvania Department of Environmental Protection*

Kevin Sunday, *Director, Government Affairs, Pennsylvania Chamber of Business and Industry*

John Walliser, *Senior Vice President, Legal and Government Affairs, Pennsylvania Environmental Council*

What do you all think are the major environmental issues facing Pennsylvania today?

Joanne Kilgour: We still have one of the most productive underground coal mines in the country in Pennsylvania, and that continues to have an impact on our environment and our economy, and particularly on land that's taken up for coal refuse disposal. We, of course, have oil and gas development, and one of the larger shale plays in the country, so we see the overlap of those two issues.

As water scarcity becomes an issue that the country is dealing with increasingly, I think some of the issues for Pennsylvania are going to shift where there may be increased pressure on our freshwater resources. The Chesapeake Bay continues to be a major issue, and I don't think that that's going to change anytime soon.

Of course, climate change and environmental justice issues continue to plague Pennsylvania. We have significant communities that bear oversized pollution burdens, and have for decades, and that I think will continue to be a trend because Pennsylvania is such a rural state.

John Walliser: I think the one thing I would add to that is the legacy issues—all the problems that Pennsylvania has from the generations of activity that happened before the point of regulation. Not only affecting the environment, but communities as well, whether coal, past oil and gas practices, or other activity.

Kevin Sunday: A lot of these issues have a nexus with land use policy. That fundamental tension between individual property rights that are federally protected, and then our myriad government agencies at the state and local level who have some overlapping duties. And there's still the open question of how those things get resolved when you have folks that want to make use of their resources versus community considerations and concerns about what the impacts are.

Jessica Shirley: I think legacy land use is a problem, too, and not just that we have old brownfields that we are cleaning up and rehabilitating, but we're also learning a lot about the chemicals, and the things that we used previously in processes, and how they're impacting our environment and our public health.

Joanne brought up a good point about coal mining, where it's having greater impacts than we probably foresaw in Pennsylvania, particularly in streams and our waterways. She mentioned the Chesapeake Bay, but it's really your local water quality that is an issue in Pennsylvania. We have a very long list of Pennsylvania waterways that are impaired or need some sort of attention. There isn't much funding to go towards these issues right now.

John Hines: I'll put it simply. First, nonpoint source pollution impacting our water quality. Then the second is climate change, and looking forward to what those impacts on air quality and greenhouse gas emissions are going to be.

I think what we sometimes fail to recognize or look at in Pennsylvania is, we look at things in the microcosm or in the here and now. We don't look at the long term. So nonpoint source pollution and climate change, coupled with an ever-growing global population. We have growing demand for energy. As an energy-producing state, we're going to be brought into this global mix of having to solve global problems while looking at how we rectify these issues of the past.

John just mentioned climate change. Do you all think that Pennsylvania will be able to one day tackle the problem of climate change?

Jessica Shirley: This is my number one issue… the thing that I talk about the most.

You have arguments that Pennsylvania accounts for only 1% of the greenhouse gas emissions in the world, and that is true. It is a global problem, and that's why it was significant that the United States joined the Paris Climate Agreement. That's why it's important that the United States as

"We now have the issue of science starting to show one thing, but the regulatory environment taking a very long time to account for it—just because of the nature of the way these things work. How does policy catch up, or even get in front of it quickly enough?"

—John Walliser

"I think the next big issue is there isn't a next big issue—it's the continuation of the issues that we've been dealing with. It's really going to be the food–water–energy nexus that we have to contend with going into the future."

—John Hines

a whole should have a seat at the table to address greenhouse gas emissions. We are the highest greenhouse gas emitters in the world per capita, per person.

When the Trump administration announced that they were pulling out, a number of states, municipalities, and cities agreed that there was still a lot that needed to be done, and that it was important that we continue to participate on the global stage. So, Governor Wolf announced in April that we were joining the U.S. Climate Alliance. The U.S. Climate Alliance is now 25 states representing 55% of the population of the United States and 60% of the GDP. We are also looking at doing things regionally with some state partners that we have nearby.

In January, the governor announced an executive order that set the first goal for a greenhouse gas emission reduction. It's 26% reduction by 2025 and 80% by 2050. I think it's really significant that we have that goal because it's something that is consistent with the Paris Agreement.

So while we are only one state and we have our own regulatory and statutory ability, I think there's significant emission reductions to be done. If we do our part, not only will we be better off economically, but we'll show the world and the rest of the United States that if it can be done in Pennsylvania, it can be done anywhere.

Kevin Sunday: I'm pessimistic that we'll accomplish all this simply by policy. We're seeing a lot of innovation and reduction on the part of the commercial and industrial sector since 2000, and Pennsylvania is number two in terms of reducing CO_2 in energy-related emissions.

I think there's a lot of desire on the part of individuals, but anecdotally, I don't see dramatic departures from fossil fuel–powered passenger vehicles, air travel, consumption, and it's going to take individual shifts of consumption patterns before we get to policymaking.

John Walliser: I think there's a vacuum that we're seeing now at the federal level, which is going to be there for the foreseeable future and creates an opportunity for Pennsylvania to build its own policy with input from everyone. I would hope that we could do it in a way that provides appropriate incentives, and does help drive progress forward not just from a cost-on-energy standpoint, but also creating the right kinds of technologies or inspiring the right types of investments for everyone to be a part of the solution.

Joanne Kilgour: I think the question, 'Will we be able to tackle the climate issue?' to me is more like 'We will have to.' I think it's just really a matter of time. Then, at what point is it enough?

I think obviously climate change is much more complex than that, but how much are we willing to put up with, how far we are willing to let it go before we seriously come to the table and make some challenging decisions? At the same time, what are we actually doing to be responsible to the most vulnerable among us, who are actually dealing with the impacts that we're already having?

As we have an increasing number of high heat days, people who have particularly low income and need housing, people who have difficulty paying their utility bills, and low-income areas that are just decimated by natural disasters, how are we thinking about the human face of this issue, and what we're doing about it in the near term?

John Hines: How do you tackle the climate change issue? I think we want to reduce all these issues to two minutes and 22 seconds, the average commercial break.

Tackling climate change requires us to break down what it means to the average consumer. For example, everybody wants to be environmentally friendly, but they really don't look at what their actions curtail. I want to buy organic apples because I want to do my part for the environment, without an understanding of where those apples are grown, the footprint, the transportation, etc.

It's a very complicated discussion, and we can say that the U.S. wants to step up with the Paris Agreement, which I concur with. But the reality is we have to look at this in a global context and look at consumer buy-in and what drives the consumer. Because the consumer is driving the industries that thrive or don't thrive.

Obviously, climate change is generating a lot of conversation and we've spent the last ten years talking about the natural gas boom in Pennsylvania. What's the next big issue that you see coming?

Jessica Shirley: I think it's single-use plastics. Thirty years ago, did we have bottled water? No, we didn't. Now, when you want a drink of water, you are more likely to buy a bottle of water. Consumers now value convenience, and single-use plastics have provided convenient options for us. I think a lot of companies are looking at how they can reduce packaging, but I think consumers have to make choices with their dollars to buy those products that have less packaging.

Most of these single-use bottles take thousands of years to break down. I had my daughter when I was 25 years old. If she has a daughter when she's 25 years old, and she has a daughter when she's 25 years old, my 40-times great-grandchild will be dealing with the plastic that I use today. I don't think people realize that. I think that is one of our biggest emerging environmental issues.

John Hines: I think the next big issue is there isn't a next big issue—it's the continuation of the issues that we've been dealing with. It's really going to be the food–water–energy nexus that we have to contend with going into the future. What we cannot separate out from this discussion are the increasing population and energy demands outside of this country. It will be staggering trying to meet the future energy needs and finding the technologies to do so.

Kevin Sunday: I think it's population, and I don't mean population growth, I mean an aging population. In Pennsylvania, when our three segments of the population that are growing fastest are 60 and up, 70 and up, and 80 and up, that means we're going to spend more and more of our public dollars on entitlements and healthcare and those sorts of programs, and it's going to crowd out the discretionary funding that we can use for the public good—investments on infrastructure and

transportation. The same dynamic is going to play out at the federal level. We're going to have to find out if we can really sustain an advanced industrialized society with a slower growing population, and if we can keep our infrastructure up with that if these other programs are crowding things out. That again is just as difficult, if not an even more difficult, conversation than what climate change is doing with some of those programs.

Joanne Kilgour: It's interesting because climate change is already an outdated term. So now, we're talking about climate justice in a lot of broader societal conversations. So that to me is a slightly different framing, because it does bring in some of the other issues that we've dealt with, like the resiliency question and how we are dealing with impacts in addition to thinking about reducing global emissions. In some ways, I think we're already at the next big issue, we just haven't quite caught up. That all of these things like soil health, water scarcity, food scarcity, climate-related migration, infrastructure, certainly are going to continue to be facets of that issue.

Is our long-held regulatory approach to environmental protection still the best way to deal with environmental issues?

John Hines: No. Advances in technology have made our detection capabilities much better. When the Cuyahoga River was on fire, we had to control what was coming out of the pipe. We grew through the years of dealing with more complicated issues of nonpoint source pollution, but we didn't change our habits or our development patterns.

Sometimes we turn a blind eye to a solution because it's not within a definition. I think we'd have to move out of that mindset as we move forward, because these issues are complicated.

We want to make these issues black and white. But the reality is you've really got to dig down to start looking at what the advances are that need to take place in order to solve this. Are there different solutions to these problems that we've not only contended with, but we're going to contend with in the future? The world has changed, and we have to bring up the modern regulatory framework, whether it's at the state or federal level, to meet this. It's got to be quicker, simpler, and faster.

John Walliser: We now have the issue of science starting to show one thing, but the regulatory environment taking a very long time to account for it—just because of the nature of the way these things work. How does policy catch up, or even get in front of it quickly enough?

Jessica Shirley: Government is always behind the science.

Kevin Sunday: I think a broader risk-based regulatory program, which says "Here's the goal, we'll give you a lot of flexibility to get there, and then when you get there, maybe some obligations shift, or some things relax and ease up a little bit." I realize that it's going to be really hard to pull off, but it's definitely a different way of thinking from a regulatory perspective.

Jessica Shirley: That gets to your question of past versus future. "The Cuyahoga River is not on fire anymore… the river's kind of clear… so it's better." There is a bit of an ambivalence, society being apathetic to environmental issues because they don't have to deal with them anymore. There was a big push in the '60s and '70s because rivers were catching on fire, and people were dying, and the impacts were much more visible, whereas now, the impacts are less visible. They're still there, they're just not as clear.

Has the word "environmentalist" gotten a bad name?

John Hines: I think you see negativity about the term "environmentalist" because it is equated to hardcore activism. It is the images that we are shown on TV. We want to oversimplify everything into right, wrong, black, white. So, if you're an environmentalist, people think that you're an extremist.

Words matter. We've gone from climate change and even beyond—now it's a climate crisis.

The point is that we want to make everything extreme. Do we have climate change and climate issues? Yes. Are we at a crisis point? I would argue maybe not, but we're on that slope to go there if we don't start taking a look at these issues.

Jessica Shirley: You brought up an interesting point about people's perceptions. Yale actually every year does a climate communications survey, and they measure down to the county level all across the United States. When you ask "Do you believe in global warming?," the overwhelming

"I don't strongly identify myself as an environmentalist. It's not something that I feel is this huge part of my identity. I think part of that is it's often viewed as something that is exclusive, rather than inclusive."

—Joanne Kilgour

majority in Pennsylvania says yes. They think it will have impacts on the environment, they think it will have impacts on wildlife. They do not think that it will have impacts on them. They also overwhelmingly support the policies that address climate change.

So in Pennsylvania, the majority, county by county, support regulating CO_2 because of climate change. They support things like new technologies for solar and rebates for energy-efficient vehicles. They support the policies behind environmental protection, but there's certainly still a lot of confusion about global warming.

Joanne Kilgour: I don't strongly identify myself as an environmentalist. It's not something that I feel is this huge part of my identity. I think part of that is it's often viewed as something that is exclusive, rather than inclusive. That you're looking at a traditional John Muir–style environmentalist who has an interest in preserving ranching and creating these protected spaces for largely white people to go and be quiet in nature.

Those roots have real impacts still today. A lot of people associate environmentalism with hypocrisy and where we're trying to make decisions about how other people should be living their lives without real consideration for all of the nuances of the things that they're dealing with or how to get there. I think my fundamental interest in work that has to do with the environment is about vulnerability, and the people who are the most vulnerable in our society.

"We really need to think long term about what government should be doing versus what the private sector is best suited to do, versus what individuals are free to choose."

—Kevin Sunday

Is there a different way to talk about environmental issues now rather than adversarial positions we talked about earlier, or not? Should there be a different way?

John Hines: Yes, I believe there is a different way. It's not a reinvention. It's really taking a look at where we're at on the landscape.

I think part of the issue is people don't want to sit around and have a positive debate and come to concurrence on how things can get done. The problem is we want to oversimplify. Nobody wakes up in the morning thinking, "How can I screw up Pennsylvania's environment today?" Nobody. The question is, what do we need?

Nobody feels good about what they're doing in this field anymore, because you are going against the perpetual grindstone, you feel like you have to fight everybody to get your point across. That's the system that we're going up against. It comes down to the simple fact that we need stronger, visionary leadership in this field... that they're not enemies, but we're all working for the same goal.

I believe wholeheartedly that's where PEC has to become that thought-provoking organization to bring us around the table, to feel safe that my viewpoint is at least listened to. That's the only way we're really going to break this logjam here in Pennsylvania. Get us beyond where we're at, and have respect for my colleague across the table in public service, or you don't go in to just beat them up, but you have respect for what someone's doing, and what they're trying to do.

Of all of the topics and issues that we've discussed—plastics in the waste stream, climate change, water quality, impact of population on discretionary funding, stormwater, and others—what do you hope we can finally address by 2050?

Left to right: Jessica Shirley, John Hines, John Walliser, Kevin Sunday, and Joanne Kilgour

Jessica Shirley: By 2050, I would hope that we have a carbon-free society, or at least close to it.

John Hines: I don't think we'll have a carbon-free society by 2050. I think we have to come to the realization that we're not going to wean ourselves off any type of fossil fuels anytime in at least the next 50 to 100 years.

We have to start moving forward with innovation and technology, working together to become more of a carbon free-society, where there is a balance, where our problems become opportunities. That's where I think we need to go. That comes with vision. That comes with acceptance. The Alliance for Plastic Waste is putting $1.5 billion globally into looking at solutions for the plastic problem. So everybody is trying to move toward the same goal. Maybe there's different reasons for it, but I think we have to have more of an acceptance that we're all trying to row in the same direction.

Kevin Sunday: I think it would be the shift in regulatory approaches, and then just basic government functions. We really need to think long term about what government should be doing versus what the private sector is best suited to do versus what individuals are free to choose. That takes creating a political and social environment where people have optimism for the future, that they want to raise children, start a business, and stay engaged as a citizen, which means we're not just voting and tweeting, but being part of their community.

John Walliser: I would hope that we would be at a point to deal with a lot of legacy issues and the means to address them, whether that's cleaning up acid mine drainage or dealing with those things that are a legitimate threat to the environment or public health… that they don't become the perennial crisis of how are we going to fund it, how are we going to reauthorize the Abandoned Mine Land Trust Fund every 10 years, those sorts of things. I hope we come to a solution. Because, at least for now, we know where the sites are and we know to an extent the range of the problems that we have.

Joanne Kilgour: There are so many people who are dealing every day with life-or-death situations, and every single decision that I make has an impact on that. We don't have a great way of building that into our decision-making. I wish I could say that I think that will be resolved by 2050, but my hope is that we'll get to a point where we're able to figure out how to at least include that analysis in our decision-making, and have a shared language for thinking about that. ■

A Note from the Desk of the Governor

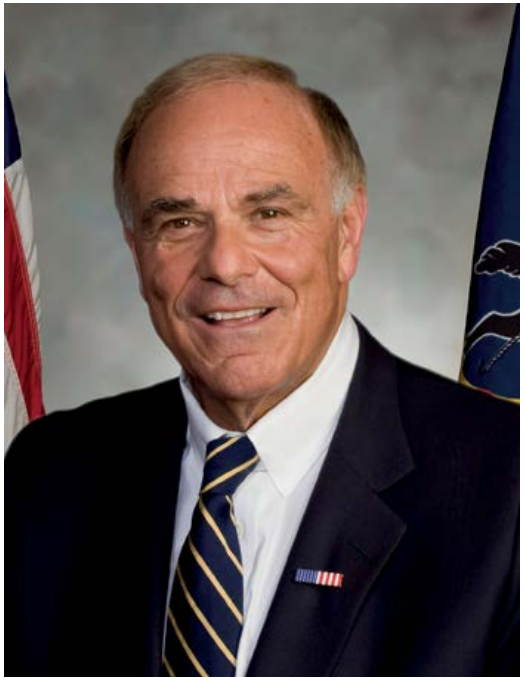
Congratulations to the Pennsylvania Environmental Council on its 50th anniversary!

During my two terms as governor, we achieved many advancements for the communities, citizens, and environment of Pennsylvania. PEC's leadership was central to those successes.

From reauthorization of the federal Abandoned Mine Land Trust Fund to the expansion of the landmark Growing Greener program and the creation of the Alternative Energy Standards, the work of PEC to help build the partnerships and consensus needed to advance these significant accomplishments was essential. In addition, PEC's leading Climate Change Roadmap for Pennsylvania, which in turn led to the creation and passage of the Pennsylvania Climate Change Act—which I was proud to sign into law—paved the way for our Commonwealth to begin to account for and address the realities of climate change and do our part in combating it.

Much was achieved, and much remains to be done. I commend PEC for its tremendous legacy and wish you the best for another 50 years.

Sincerely,
Edward G. Rendell



Pennsylvania State Archives, RG-20.58 Governor Ed Rendell

Governor Edward G. Rendell
2003–2011

Jolene Chinchilli

Board of Directors, 1999–Present

Consensus is a means of getting to what PEC's goal is.

Sometimes, people can fall into thinking that consensus and cooperation is the goal. I don't think PEC does that. PEC uses consensus and convening as a tool to get to a good outcome and an outcome that can be supported by a majority of people, and that is so hard. It's so difficult and it takes a lot of skill, but I think we have to make it very clear to people that consensus isn't the outcome or the goal... it isn't the ultimate outcome. Finding consensus or bringing people together is simply a means of moving forward and getting to some solutions. Particularly now, we can't seem to reach conclusions because everybody is just talking past each other.

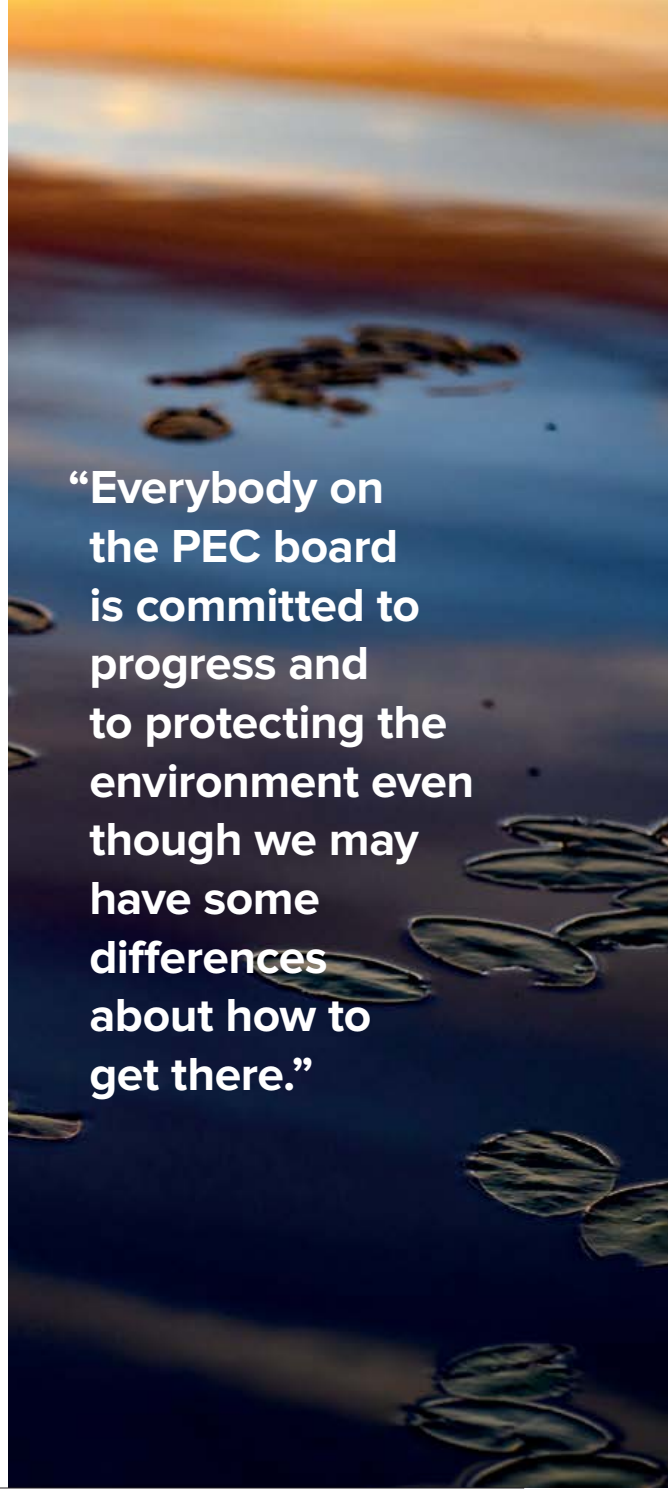
More recently, people have been digging in and demonizing those who don't agree with them and talking past each other to make political points. I understand that there are people who are very passionate about certain things. But it's wrong to think that PEC doesn't have that passion for the environment. I sit on that board, and there are a variety of opinions, but everybody on the board is committed to progress and to protecting the environment even though we may have some differences about how to get there.

We did have an individual on the board, and this particular board member was pushing and pushing, so the board pushed back by saying, "This is our position; this is how we approach these issues." These are private board discussions, but this is what people who criticize PEC from the outside don't see. They misconstrue our willingness to talk to people involved in an issue as somehow compromising our position. But I was very proud of the board. I was very proud of the organization, and I was proud of the staff.

It sometimes takes PEC longer to come out with a formal statement because there are so many things to consider, but I just am very proud that we don't let one very vocal person or one very strong interest dominate. We hear them and we try to accommodate their concerns and interest to the point that we can, but never to the point where we compromise what we think needs to happen.

I think it's important that PEC also stands up and talks about how you can't address these kinds of problems if you deny there's a problem or refuse to look at evidence, data, and scientific consensus.

So PEC is in a good position because they haven't engaged in that kind of inflammatory interchange, but they have also been very clear about where they stand on the issues. ■



Pine Creek Rail Trail, Clinton County

Creating Connections

For PEC, Trails Are About Stewardship... and Connecting Pennsylvanians to Places They Love

Pedestrian and bike trails have exploded in popularity across the country and in most parts of the world, fueled by the convergence of heightened awareness of healthy lifestyles, thousands of miles of abandoned railways, and the lure of a safe venue for family biking.

In Pennsylvania, there are 180 rail trails covering well over 7,000 miles.

While you pause for a moment to wrap your head around those numbers, consider that 7,000 miles is three coast-to-coast trips. Seven thousand miles of trail in a state that measures only 283 miles across.

And that's not counting the 26 separate water trails, which account for an additional 2,100 miles of recreational space.

By comparison, there are fewer than 2,000 miles of interstate highways in the Keystone State.

What's even more impressive is that new trails are being added every single day, with more still in the planning stages, and there are trail connections between Pennsylvania and surrounding states that are more than just good ideas—they're happening.

Creating Connections

Connecting Pennsylvanians to Places They Love

In less than a generation, pedestrian and bike trails have exploded in popularity across the country and in most parts of the world, fueled by the convergence of heightened awareness of healthy lifestyles, thousands of miles of abandoned railways, the lure of a safe venue for family biking, the growth of adventure travel, and other trends.

In fact, trails have even become vacation destinations unto themselves, with amateur enthusiasts spending millions each year on extended trips along scenic rail trails from coast to coast.

The reason for the explosive growth of trails is simple—they have become both enormously popular... and profitable.

A 2019 report by the Rails-To-Trails Conservancy concluded that rail trails contribute $930 million to the Pennsylvania economy. A big part of that impact is due to the Great Allegheny Passage (GAP), a 150-mile trail connecting Pittsburgh with Cumberland, Maryland, which then connects to the Chesapeake and Ohio Towpath to Washington, D.C.

The GAP is recognized as "the crown jewel of Mid-Atlantic Rail Trails" and today attracts nearly one million users from around the world. *National Geographic* called it one of the world's best fall trips in 2012, and its great success has spawned 65 new businesses and at least 270 new jobs. Beyond that, a 2008 study by the Allegheny Trail Alliance found that the GAP generated over $40 million in direct annual spending and another $7.5 million in wages, making it an important economic generator in the region.

Redbank Valley Trail, Clarion County

Not to be outdone, the Circuit Trails in southeastern Pennsylvania are a vast regional network of hundreds of miles of multi-use trails that is growing in size each year. When completed, the Circuit Trails will consist of nearly 900 miles of trail connecting greater Philadelphia with urban, suburban, and rural communities in the region.

And both the GAP and the Circuit are connected to trails in neighboring states, laying the groundwork for a national network of off-road recreational trails. In between, smaller trails traverse every Pennsylvania county, through small towns, along riverfronts, historical sites, and some of Pennsylvania's most scenic areas, and have given rise to a new form of environmental and recreational experience for millions.

A Brief History of Rapid Growth

PEC's introduction to trail development began in the 1990s in both Philadelphia and Pittsburgh.

Patrick Starr, PEC's executive vice president, traces the origins of its trail work to the late 1970s.

"Our trail work in Philadelphia really began with the North Delaware Master Plan, which was a collaboration with Congressman Bob Borski," said Starr. "We worked together closely for more than a decade, and it was our work on that corridor that really spurred our greenway and trail work forward."

"I think the Schuylkill River Trail in many ways was an eye opener," says Mr. Starr. "Philadelphia and

Trails have even become vacation destinations unto themselves, with amateur enthusiasts spending millions each year on extended trips along scenic rail trails from coast to coast.

Schuylkill River Trail, Philadelphia

Three Rivers Heritage Trail, Pittsburgh

The GAP is recognized as "the crown jewel of Mid-Atlantic Rail Trails" and today attracts nearly one million users from around the world.

Montgomery County embraced the concept back in the '70s. The development and heavy use of that long-distance trail really made an impression on a lot of people."

The popularity of those trails and others led to a PEC study on the potential to create a Schuylkill River Greenway corridor, its first steps in the fledgling Pennsylvania trail community. Interest continued to grow and expand into neighboring counties that were interested in building connections to their community trails—the Perkiomen Trail in Montgomery County, and the Chester Valley Trail in Chester County. By the 1990s, the East Coast Greenway, a 3,000-mile biking and hiking trail stretching from Calais, Maine, to Key West, Florida, passing through 15 states, identified a 58-mile spine through Philadelphia and southeastern Pennsylvania as a designated corridor connecting Delaware with New Jersey.

"I remember just thinking at the time, you people are crazy, that is never going to happen," recalls Mr. Starr. "It's impossible. You're talking about going through a city of three and a half million on the Pennsylvania side. That's nuts. Well, guess what? We're making it happen."

Overall, about one-third of the East Coast Greenway is complete, but more than half of the Pennsylvania spine is already finished, and Starr is optimistic that about 90% will be complete by 2025.

PEC worked with local trail groups and communities all along the Pennsylvania spine to facilitate planning and design, as well as to provide assistance in overcoming some of the challenges of locating 58 miles of off-road trail through one of the most densely populated urban areas in the United States. One such challenge was the 58th Street Greenway segment, a critical connection in the project. PEC engaged communities to participate in the design process and helped trail organizers secure the necessary resources for construction.

In central Philadelphia, PEC worked with neighborhood groups to develop a feasibility study for a cross-city greenway between the Delaware and Schuylkill Rivers along Spring Garden Street. When completed, this trail could include such features as stormwater management, pedestrian improvements, trees, improved traffic signals, and separated bicycle facilities, making it Philadelphia's greenest street.

The Circuit Trails

In 2009, the U.S. Department of Transportation unveiled a discretionary grant program as part of the American Recovery and Reinvestment Act. Called the Transportation Investment Generating Economic Recovery program (TIGER), this legislation provided $1.5 billion for surface transportation–related projects that could demonstrate economic development benefits.

"We said to ourselves, 'We have something to offer here,'" recalls Starr.

PEC, along with the William Penn Foundation, the Delaware Valley Regional Planning Commission, and local trail groups in southeastern Pennsylvania, as well as the City of Philadelphia and others, began to imagine the potential impact of a vast network of trails throughout the region that would provide a significant outdoor recreational amenity as well as a viable transportation system that could have a measurable impact on traffic congestion.

PEC helped secure TIGER grant funding to launch a regional trails movement. That led to the creation of the Circuit Trails Coalition, an organizational network to make this grand infrastructure vision a reality.

Since that time, the Circuit has grown to become a planned development of nearly 900 miles of connected trail systems throughout the greater Philadelphia area, linking the downtown area with suburban communities in each direction. Though not yet 50% complete, the Circuit Trails already consists of over 300 miles that have rapidly emerged as recreational and commuting arteries, supporting more than three million users in 2019.

"We were able to get the Circuit Trails network incorporated into the region's transportation master plan," says Starr. "As far as big cities go, we were one of the first in the nation to do that."

The Pittsburgh Connections

When Tom Murphy took office as the Mayor of Pittsburgh in 1994, the city had almost no trails and was ranked as one of the worst cities in the world for biking.

Murphy, now a fellow at the Urban Land Institute, recalls his inspiration for creating what is now one of the best hiking and biking cities in America.

"I learned a lesson from Robert Moses when he was trying to build parks in New York City," recalls Mr. Murphy. "He said, 'If you put a stake in the ground, no one will have the guts to take it out.'"

"Pittsburgh was the most unlikely of places to have trails," he adds. "It was the most industrialized area of America for one hundred years, and as those factories began to decline, we saw an opportunity to take a lot of the old railroad right-of-ways. Initially, there was a lot of skepticism, and now billions of dollars of investment has happened along the rivers, and in every case, we have riverfront trails."

Darla Cravotta and Hannah Hardy were aides in Murphy's office. "Tom Murphy was an avid runner, walker, and biker," recalls Ms. Cravotta, "and he wanted to build a trail. So we hosted the 1999 Annual International Trails and Greenways Conference in Pittsburgh. After that, I got reassigned from the community development work I was doing to help build trails."

One of Ms. Cravotta's first tasks was to clear the way for a trail connecting downtown Pittsburgh with neighborhoods in the city's East End. Getting it done required securing abandoned railroad right-of-ways, reclaiming old industrial properties, and designing an off-road route down the middle of an interstate highway. The Eliza Furnace Trail passed by the site of Pittsburgh's first steel blast furnaces, and the contrast between the city's industrial heritage and its trendy new style gave trails in the area an added dimension that proved popular with the community.

"One of the things that we knew about the Eliza was it was the one place you could go in town where you would see a diverse group of people—young, old, black, white, brown—because it connected disparate communities," she recalls.

At the time, the mayor's office was the driving force for trail development in the city. The nonprofit trail community was in its infancy and struggling to create a vision, develop resources, and overcome the significant challenges that came to define trail-building in the 1990s. PEC recognized the importance of what Mayor Murphy had started as well as the potential for creating a stewardship ethic among the growing population of trail users.

Ms. Hardy, who left the mayor's office to run PEC's trail advocacy programs in 2003, credits the tenacity of several early visionaries for persuading civic leaders, property owners, railroad executives, and others to embrace the vast possibilities that trails could provide. She recalls the historic contributions of Linda McKenna Boxx, who led the creation and development of the Great Allegheny Passage; John Surma, the chief executive officer of U.S. Steel, who was instrumental in securing a Norfolk Southern Railroad bridge over the Monongahela River, a final and critical link in the GAP; and Tom Murphy and PEC.

"There was a small group of people that could see the regional connection," she says. "It was the people that were talking about these regional connections and everybody else was saying, 'Oh, that's never going to happen.'"

"There were visionary people who didn't give up," adds Ms. Hardy. "They could see clearly that this would be a community asset that would transcend all different types of people, that people would enjoy it."

"There were visionary people who didn't give up. They could see clearly that this would be a community asset that would transcend all different types of people, that people would enjoy it."

Youghiogheny River, Ohiopyle, Fayette County

The Point of Trail Advocacy

In its 50-year history, PEC has never built a single mile of trail. Yet trail advocacy and stewardship of outdoor recreation amenities has become a major part of PEC's mission.

The reason is simple, says Frank Maguire, PEC's program director for trails and recreation.

"Trails make the case for the preservation of open space," says Mr. Maguire. "One square foot on a mile of trail equals roughly 40 acres of conserved land. But almost more important, there are tangible benefits to why these places are preserved and why they are special. People value the places they play, the places they go to get away from everything. And trails provide that."

Because of its 20-year history as a trail advocate in Pennsylvania, PEC is regarded within the national trail community as a champion, a convener, and a visionary in trail network planning. Its role has been felt in a number of exciting trail projects around the state that are working together to create vast trail networks that connect the farthest reaches of the state and region to one another.

PEC has brought a new way of thinking to trail development, both in Pennsylvania and in other parts of the country. It participated in the creation of the Industrial Heartland Trails Coalition, which is working to create a 1,500-mile multi-use trail experience through America's industrial corridor. When complete, this trail system will connect Pennsylvania with three other states—West Virginia, Ohio, and New York. An important outcome of that initiative was a technology tool for regional trail planning and coordination.

In 2012, PEC convened yet another regional trail planning coalition and developed an online method to share, collaborate, and brainstorm. The GoTo TRAILS platform integrates GIS, web browsers, and other web-based technologies to overcome vast distances, levels of understanding, and available resource capacities. Today, GoTo TRAILS provides a no-cost platform where trail planners, managers, and explorers can find information about trails.

And more recently, PEC has convened the largest trail projects from across the country to collaborate and coordinate their planning in order to optimize the connectivity of trails across the United States. The Collaboration of Regional Trails Initiative consists of trail organizations working on the development of large, multi-jurisdictional trail projects. Through this collaborative effort, a strategy is being created to leverage the work being done locally and to create vast new opportunities for trail users and communities alike.

Additionally, PEC co-manages Pennsylvania's 2,100-mile water trail system with the Pennsylvania Department of Conservation & Natural Resources and the Pennsylvania Fish & Boat Commission. These water trails are recreational boat routes suitable for canoes, kayaks, and small motorized watercraft. Like conventional trails, water trails are recreational corridors between specific locations.

"I think one of the best rides in America is from Pittsburgh to Washington, D.C.," says Tom Murphy. "That was a lot of smaller trail efforts until Linda McKenna Boxx said, 'We can put these together and make it greater than the sum of the pieces, and it will be a wonderful opportunity,' and it is that now."

"PEC's been able to bring more of a statewide conversation to the table in what is normally a very localized discussion," says Ms. Cravotta. "And also help us think bigger in terms of the various connections. The GAP is the standard bearer of what a trail with towns should look like. But PEC brings that bigger picture... to have those discussions with a wider angle." ■

Point State Park, Pittsburgh

A Note from the Desk of the Governor

Congratulations to the Pennsylvania Environmental Council on your 50th anniversary!

By nearly every measure, we have made tremendous strides in enhancing our environment and natural resources and addressing many of the legacy challenges our communities inherited from our predecessors. The social conscientiousness of our obligation to protect and improve upon our shared environmental resources is in no small measure due to the work of the Pennsylvania Environmental Council and its citizen-members, who have embraced pragmatic yet meaningful policies to the betterment of our Commonwealth.

One of the most significant opportunities afforded to our citizens is the potential to unleash our domestic natural gas resources. While maximizing this opportunity is critical—to the benefit of our economy, air quality, and national security interests—it was imperative to me that we do so in a manner that protected our land, air, and water resources. The creation of the Governor's Marcellus Shale Advisory Commission was critical to identifying the myriad issues that state government needed to address, while working collaboratively to build a consensus on meaningful change that could be enacted.

I was and remain grateful for the critical role PEC played in this process. Working together, we enacted more than 30 specific policy changes that raised environmental protection standards, while providing a mechanism to generate nearly $1.7 billion to date in new revenues for communities all across Pennsylvania. The Marcellus Legacy Fund stands as one of the largest investments in environmental and conservation programs in our Commonwealth's history.

Beyond this, I was pleased to work with PEC and other environmental advocates to infuse new money into the award-winning Growing Greener program; to expand our nationally certified state forest lands by tens of thousands of new acres; and to chart a path to restoring the health of the Chesapeake Bay—and with it, hundreds of miles of waterways right here in Pennsylvania. We did so while working to increase the resources available to our environmental and conservation agencies to meet their core, critical responsibilities, and refocusing our efforts on providing a strong, robust, and predictable business climate for job creators.

Like all successes, these accomplishments are shared, and would not have been realized without the good work of so many who look to partner with their government. On behalf of my administration, we are grateful for the many contributions PEC has made to enhancing and protecting our environment, and we look forward to PEC's continued engagement for many years to come.

Tom Corbett

Governor Tom Corbett
2011—2015

Timothy D. Schaeffer

Executive Director, Pennsylvania Fish & Boat Commission
Central Pennsylvania Regional Director, Pennsylvania Environmental Council, 2002–2005

The reason I'm in this field to begin with is because of Andrew McElwaine.

I was in graduate school at Carnegie Mellon, and I thought I was going to be getting into higher education administration because of a previous job I had. I never even knew there was such a thing as a career in conservation. I took a course that Andrew was teaching while he was at The Heinz Endowments, and it literally changed my life. That course put me on the trajectory to get into this field. Had I not taken Andrew's course, I don't know if I ever would have had a career in conservation.

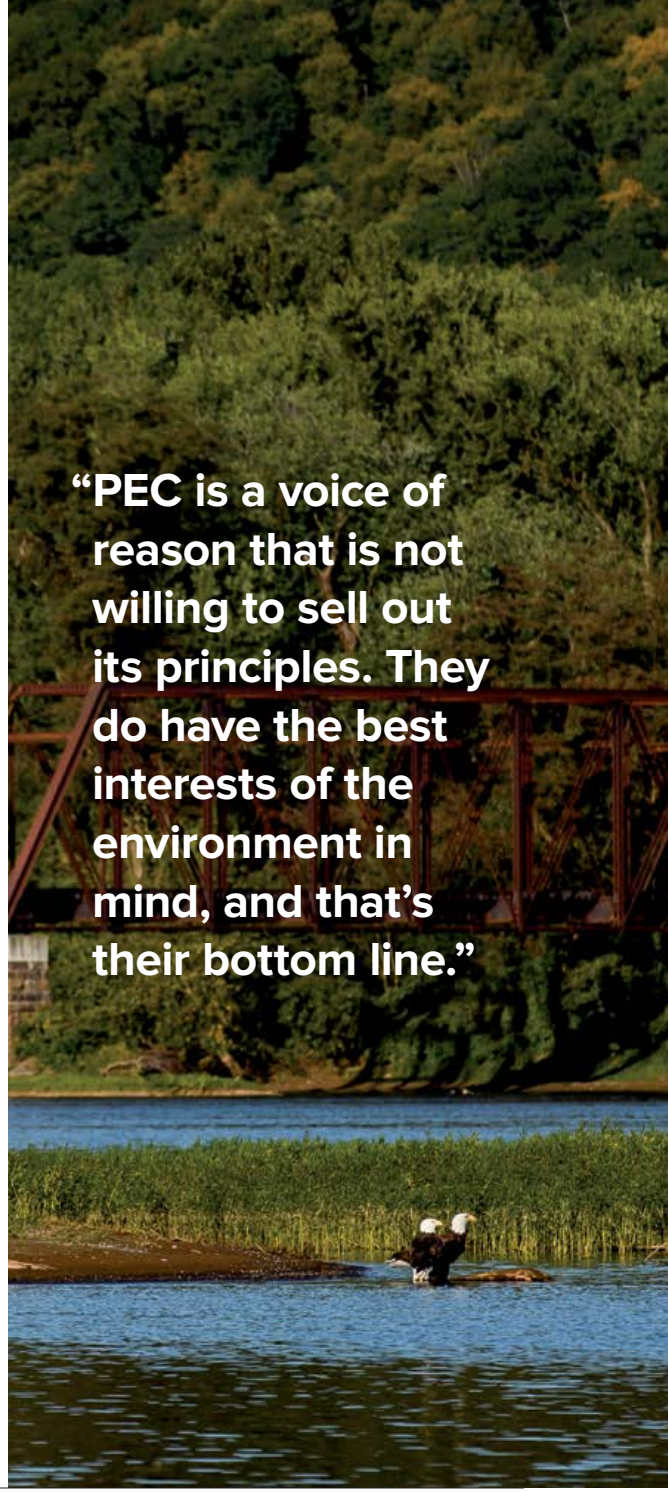
A few years later, Andrew was president of PEC and he offered me a job. I've always thought of PEC as a voice of reason that is not willing to sell out its principles. They do have the best interests of the environment in mind, and that's their bottom line. But they do so in a way that looks for common ground.

There is a "PEC way." It's an ethic, a way of doing business. I don't know if it's the consistency of having Davitt Woodwell, John Walliser, and Patrick Starr there for so long while other people come and go, but there is continuity there.

One of the things that I've seen is fewer people hunt and fish today, so the sportsman's voice in Harrisburg has declined a bit. So when you have issues that transcend the consumptive side versus the non-consumptive side, I think PEC can help to fill that gap. And to maintain that virtuous middle and continue to be respected and listened to by both sides of the aisle is significant. And when PEC talks, people listen.

The big thing now is conservation funding, and PEC has been right in the middle of that. Whether it's for reauthorization of the abandoned mine reclamation trust fund at the federal level or Growing Greener here in Pennsylvania, they are making sure that conservation resources have adequate funding.

They have been very involved with the collaborative efforts on the Chesapeake Bay Watershed implementation plan, and I think if PEC can continue to be a convener and a leader on watershed management, that will be critical. With their statewide perspective, PEC can help to draw attention to issues that are common throughout watersheds in Pennsylvania. ■



Shippingport, Beaver County

In 2016, Pennsylvania ranked as the fourth-largest carbon-producing state in the U.S.

In Search of a Zero-Carbon Pennsylvania

PEC's Common-Sense Approach to Combating Climate Change

"How many scientists does it take to change a lightbulb?"

"Five—one to change the lightbulb, and the other four to stand around debating whether the methods used to change the lightbulb were correct."

So when 97% of the scientific community can find something to stake their reputation on, it requires our undivided attention.

And what they agree on is that man-made impacts are causing global warming and climate change. Most of the leading scientific organizations around the world have stated this same conclusion, including international and U.S. science academies, the United Nations Intergovernmental Panel on Climate Change, and many, many others.

The undeniable culprit in global temperature rise is carbon emissions from a variety of man-made sources—fossil fuel combustion in the transportation and electric generation sectors, as well as in many manufacturing and industrial processes.

What does this mean for Pennsylvania?

In 2016, Pennsylvania ranked as the fourth-largest carbon-producing state in the U.S. The Pennsylvania Department of Environmental Protection (DEP) reports that the Commonwealth's climate has undergone a long-term warming of more than 1°C (1.8°F) over the past 110 years, and it's still rising. By 2050, it is expected that Pennsylvania will be 3°C (5.4°F) warmer than it was in the year 2000. And according to PEC's own 2007 estimates, Pennsylvania was responsible for 1% of the world's total greenhouse gas emissions.

The consequences of rising temperatures and the resulting climate impacts are both dire and evident. The 2015 Climate Impacts Assessment report conducted by Penn State University for the DEP concludes that the impacts of climate change are already upon us, and they will continue to affect Pennsylvania's economy, public health, and quality of life.

It's projected that climate change could worsen air quality in Pennsylvania, increase pollen concentration, mold concentration, and ground-level ozone, cause longer allergy seasons, aggravate asthma, and increase mortality among at-risk populations.

Diseases like West Nile virus and Lyme disease could increase due to more favorable conditions for mosquitoes and deer ticks. Severe storms and increased precipitation in many parts of the state could also lead to higher flood risks, affect reliable electric service, and threaten current electric infrastructure.

The Penn State report concluded that by 2050, Philadelphia's climate will be similar to that of current-day Richmond, Virginia, and Pittsburgh's will be similar to current-day Washington, D.C.

"All the science says you need to achieve at least an 80% reduction in carbon emissions by midcentury," says Lindsay Baxter, PEC's energy & climate program manager from 2011 to 2018. "There are a lot of things we could do to get to an 80% reduction in carbon, but are those the same actions and investments that are going to get to a 90, or a 95, or a 100% reduction?"

The Science of Decarbonization

"PEC has helped frame the debate in Pennsylvania on grid decarbonization," says Armond Cohen, executive director of the Clean Air Task Force in Boston, "as one of greater openness to multiple technologies and flagging the importance of a diverse approach to keep the economics under control and to actually speed things up, because if you just insist on one family of technologies, whether it's nuclear or anything else, you're going to have risks of actually getting across the finish line."

Nuclear power may represent the largest and most readily available zero-carbon option, since 40% of the Commonwealth's energy is currently provided by nine nuclear generating stations.

In Pennsylvania, a number of opportunities for decarbonization are already in place. Nuclear power may represent the largest and most readily available zero-carbon option, since 40% of the Commonwealth's energy is currently provided by nine nuclear generating stations. Ironically, the state known for the first commercial nuclear power accident in U.S. history may find that nuclear power represents one of its best options for reducing carbon emissions in the short term.

"We're in a time crunch to get to zero or near zero emissions," says Ms. Baxter, now a manager of state regulatory affairs at Duquesne Light Company. "That's where PEC started getting interested in nuclear power... maintaining the existing fleet and looking at what potentially newer sources of nuclear might look like. We looked at carbon capture and storage as a way to capture emissions, primarily from natural gas, but from any combustion source and grid modernization, because to build out more generation sources is going to require upgrades to the grid. It's going to require more smart metering and smart infrastructure, more sensors, and become much more important if we're using electricity to fuel vehicles, certain industrial processes, or building heating and cooling."

Limerick Generating Station, Pottstown, Montgomery County

Wind power in Pennsylvania currently generates more than 1,300 megawatts of electricity on 27 wind farms, enough to power nearly 350,000 homes.

"There are a lot of groups that wanted to quickly walk away from the nuclear industry in Pennsylvania," says Pennsylvania state senator John Yudichak. "PEC was a reasonable voice in noting that 93% of our carbon-free electric generation comes from nuclear, that it needs to be a part of the conversation. It's not the entire conversation, but it needs to be part of the conversation."

But any drive from one end of Pennsylvania to the other will almost certainly offer views of giant wind turbines taking advantage of prevailing westerly winds across the Appalachian Mountain ridges. In just the past decade, wind power has gained a foothold in Pennsylvania and currently generates more than 1,300 megawatts of electricity on 27 wind farms, enough to power nearly 350,000 Pennsylvania homes.

Cohen believes that energy diversity is an important strategy for decarbonization in Pennsylvania.

"If we're working on multiple technologies at once, preserving existing nuclear units, building out the renewables, maybe beginning to experiment or demonstrate carbon capture, we may have a winning combination. But if we're just focusing on one of those things, it's not going to really advance the ball."

The Climate Change Roadmap

In 2005, PEC convened groups of stakeholders representing business, farm, energy generation, and environmental interests to help create a vision for greenhouse gas reductions in Pennsylvania. Informed by compelling scientific evidence, these discussions resulted in a Climate Change Roadmap for Pennsylvania that was published in 2007.

The Roadmap made 38 specific recommendations on reducing greenhouse gas emissions in several sectors: energy supply; transportation; residential, commercial, and industrial buildings; agriculture, forestry, land use; and carbon sequestration and more. It set specific goals of reducing greenhouse gas emissions by 25% from their 2000 levels by 2025.

But PEC, working with the Clean Air Task Force, recognized that the long-term solution to meeting those reduction targets is not simply capturing or reducing carbon emissions, but "de-carbonizing" the Pennsylvania economy.

"The question is how do you actually build an electric system for Pennsylvania that's reliable, that's affordable, and it's ultra-clean zero carbon," says Mr. Cohen. "The approach we're taking and that PEC has adopted, which not all environmental groups would embrace, is that we have to focus on the carbon, not so much on the specific technology.

"We were trying to expand the scope of the discussion," he says, "to say why legislation shouldn't just be about nuclear. It should also be about a broader decarbonization thrust."

So in 2017, PEC once again played the role of convener and hosted a two-day conference in Pittsburgh, "Achieving Deep Carbon Reductions: Paths for Pennsylvania's Energy Future," that sparked a statewide discussion and led to a PEC report with a set of recommendations that challenged policymakers in Harrisburg to accelerate their efforts to achieve 80% carbon reductions by 2050, seen by scientists and the international community as necessary to avoid the worst impacts of climate change.

In 2005, PEC convened groups of stakeholders representing business, farm, energy generation, and environmental interests to help create a vision for greenhouse gas reductions in Pennsylvania.

800 feet underground, below Greene County

A Zero-Carbon Future in a Fossil Fuel State?

A dilemma for Pennsylvania is rooted in its abundant fossil energy resources. Pennsylvania's vast coal reserves are well-known and have been a bedrock of the state's economy for nearly two centuries. Oil was first discovered here near Titusville in 1859. And according to the U.S. Geological Survey, the Marcellus Shale contains about 84 trillion cubic feet of undiscovered, technically recoverable natural gas and 3.4 billion barrels of undiscovered, technically recoverable natural gas liquids—an energy resource that could help meet America's energy needs for decades.

The problem, of course, is the carbon that would escape to the atmosphere with the combustion of all those fossil fuels.

Recognizing the need to foster best practices in environmental responsibility in the shale gas industry, PEC was one of several stakeholders who helped create the Center for Responsible Shale Development, an organization to help promote environmental stewardship in the natural gas industry.

"I have enormous respect for the position that they've taken in the shale process," says Mr. Cohen. "Shale development is going to happen. It's going to be probably a transition."

In 2012, a group of nine northeastern states collaborated on a strategy to jointly reduce their greenhouse gas emissions. The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory market-based program in the United States to cap and reduce CO_2 emissions from the power sector in an effort to address climate change.

PEC has urged the Pennsylvania General Assembly to develop a state program that can link with RGGI and reduce the state's carbon emissions. At the same time, PEC maintains that participation in such a program would yield significant economic benefits to Pennsylvania, given that RGGI has resulted in significant economic growth among the founding nine states since the program was enacted.

PEC has called for a Clean Energy Standard that would build on the success of the Alternative Energy Portfolio Standards, enacted in 2004 to provide economic development opportunities by increasing the mix of alternative electricity generation in Pennsylvania. Combined, a Clean Energy Standard and participation in an RGGI-type program would reflect an "all in" approach to realizing Pennsylvania's carbon reduction goals.

"Balancing that energy portfolio with environmental responsibility is always the challenge," says Sen. Yudichak. "We recognize that there is going to be a transition, but climate change without question is the most pressing public policy challenge for Pennsylvania... and for the world."

"If there were more environmental groups like PEC, we're going to make more progress on climate change. Those that bring a broad, diverse, and reasonable perspective to the conversation around climate change do more to advance the reduction of carbon than any of these organizations that just happen to have a larger social media platform."

"I do think that a 100% renewable future is possible," says Ms. Baxter, now manager of state

A dilemma for Pennsylvania is rooted in its abundant fossil energy resources. Pennsylvania's vast coal reserves are well-known and have been a bedrock of the state's economy for nearly two centuries.

regulatory strategy at Duquesne Light Company in Pittsburgh. "However, I do not think it's possible on the timescale by which we need to address climate change. So yes, I think someday we'll get there for sure. But how do we drive down carbon emissions to where we need to before we cause catastrophic harm to our planet?"

The good news, perhaps, is that Pennsylvania is in a better position to answer that question than many other states thanks to its diverse portfolio of nuclear, natural gas, and renewable energy resources.

"The catbird seat for Pennsylvania is, you've got something that's 24/7" says Mr. Cohen. "When the wind is not blowing and the sun's not shining, you just flip on the gas units and you have something that complements renewables. That's a pretty interesting proposition." ■

The Future Is Here

PEC's Future Leaders on the Issues of Today... and Tomorrow

PEC's past 50 years have been marked by the work of many dedicated professionals, whose work is well-presented in these pages.

But what about the next 50 years? Who are PEC's future leaders? What are their views... on their work, the Pennsylvania environment, and the challenges that lie ahead?

If you had asked PEC's young professionals what the most pressing environmental concerns were in 1970, you would likely have heard about industrial pollution, along with a host of clean air and water issues. While tremendous progress has been made, sadly, many are still with us. But now these legacy issues are positioned within the larger context of climate change and its residual impacts on people and the precious natural resources we depend upon for survival.

To find out what's on the mind of PEC's future leaders, we sat down with six PEC professionals—all no older than 30—in a far-reaching discussion about the present... and the future.

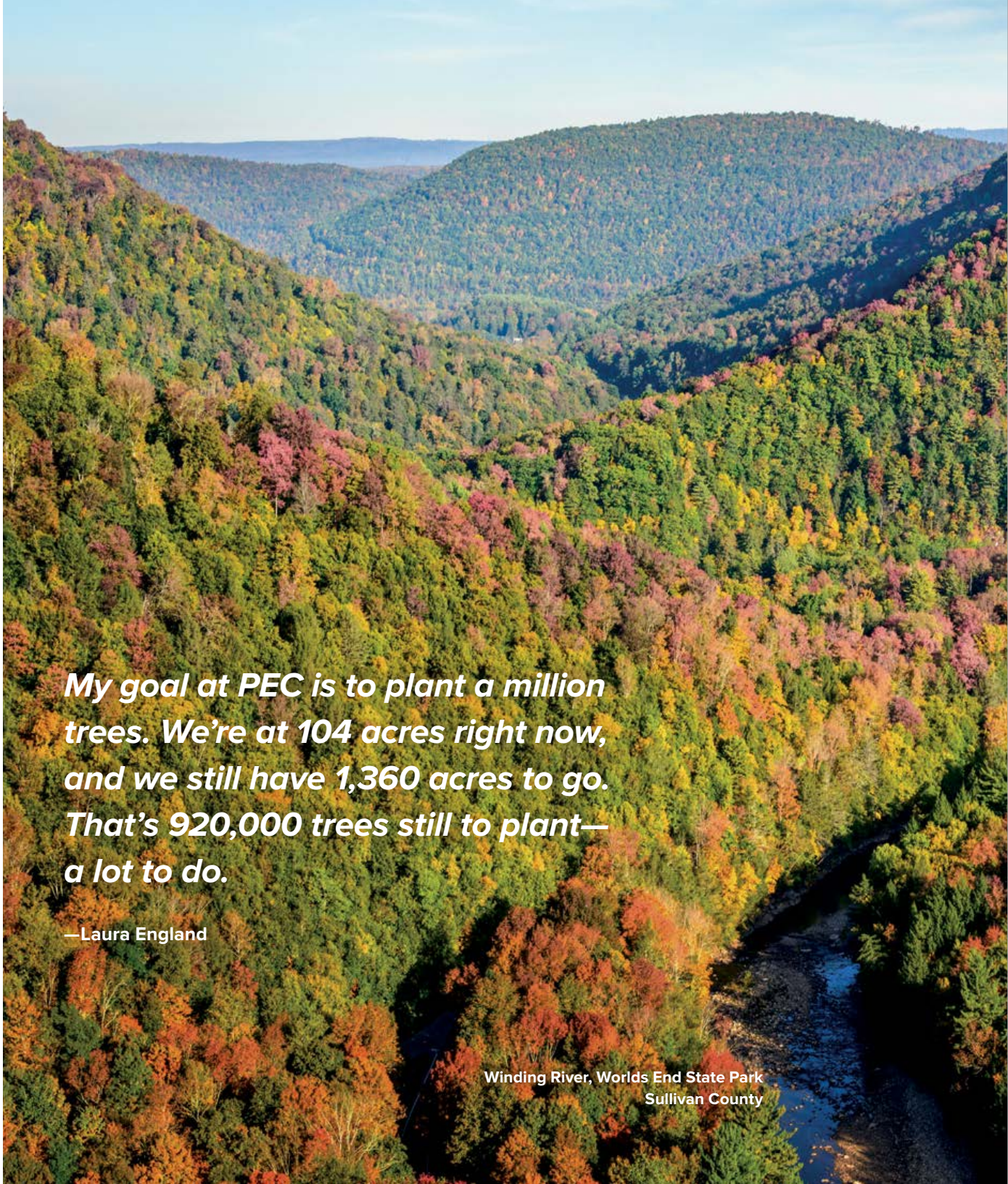
What has surprised you about environmental advocacy as a career? Is it what you signed up for?

Chris: One of the things that constantly surprises me is that in many ways this is kind of an uphill battle, all this work that is being done to undo the effects of other industries and other development.

We run into so many people who have been doing this much longer than we have, and they're still doing it. Which is to say they are persistent, and they are patient in their approach, in their passion for the subject and the kind of overall vision of trying to leave something in a better state than we found it. The work that we do is kind of empowering and reinforcing.

Lizzie: Changing people's perspectives of the world that they live in, and the actions that they take. How they relate to the environment is so much more important and effective sometimes than doing the big moves. So a lot of the work that we do has as much impact and as much interest as some of the bigger work that we do as an organization in Harrisburg. The different levels of how to get done what we want to get done is surprising to me.

Helena: I think it can also be discouraging to try to understand people who don't really care about the environment or outdoor recreation. You know, in building trails we run into people who don't want the trail going on their land, or don't want the trail going through a certain area. So it can be a little frustrating to try to understand those points of view or come to terms with them.



My goal at PEC is to plant a million trees. We're at 104 acres right now, and we still have 1,360 acres to go. That's 920,000 trees still to plant—a lot to do.

—Laura England

Winding River, Worlds End State Park
Sullivan County

Nate: I've been pleasantly surprised and energized by the wealth of collaboration that PEC is doing. I feel that's the work that certainly was a positive surprise, and it's definitely that level of collaboration that keeps the work interesting each day. I love being able to partner with other nonprofit organizations, with state-level departments, with community groups, and it's that level of collaboration that keeps the environmental progress going, and I find that very fulfilling.

Chris: I want to echo that a little bit. Because a surprise to me so far in my experience with PEC is that so much of the success comes with just getting people to the table. Like you can't play the game if you don't have the pieces, right? So the work that we do of trying to get that conversation rolling is incredibly impactful I think, and I guess I didn't realize or appreciate to what level until this past year and a half at PEC.

What has been your best day at PEC?

Laura: Some of my days where I was most proud of my work, or felt like I was at my highest achievement level, I haven't always been able to appreciate so much or reflect on. Because during those days you're working so hard and you're just trying. For me it's like I'm doing these major event planning things, and everything is swirling around me, so I don't have time to really love those days as much as I should. I look back on them very fondly and feel really proud of those achievements.

But my favorite days are whenever I get to spend time with one of our partners, Scott Eggerud. He's a forester with the Office of Surface Mining Reclamation and Enforcement. Walks in the woods with him are so much fun. It really brings out that inner child, and he just has encyclopedic knowledge of trees and of everything. Seeing the environment through his eyes, and him sharing that and teaching me as we go, those are the best days because I'm really just in the moment, and I'm appreciating our natural environments. It helps me to feel very passionate about the work I do.

Helena: One of my most memorable weeks was my first week, in which I went to all the PEC offices in one week and traveled all over the state and was completely overwhelmed. But looking back on it, it was just really cool to meet everybody and see all the work that PEC does. Other best days are whenever I get to ride my bike for work and explore the trails that we help to facilitate. I have a new appreciation for all those trails now, and a new understanding of what it takes to actually get those on the ground. It's always really neat to go to different areas of the state and see all the places that we work, and the difference that we make.

Chris: I would say one of the most memorable, at least so far, was a project that Laura and I worked on last year where we ran some logistical support and some assistance in planning the Climax Tunnel celebration. The Climax Tunnel is an old rail tunnel that was converted to trail use to close a gap on the Redbank Valley Trail up in northwest Pennsylvania. We were supporting the local groups, which they appreciated. We were doing a lot of the legwork to make this celebration happen because it was a pretty monumental thing.

It was millions of dollars, and a number of different agencies and sources getting together to close this trail gap. On the day that our event was scheduled they were projecting thunderstorms. It looked like it was going to be iffy, and we had all of our vendors and people set up. We were worried. Are we actually going to have anybody? Folks turned out, and for the size of that community we had a very good attendance of a couple hundred people who were there, engaged to support this effort.

These were trail users, families, people of all ages, elected officials, the secretary of DCNR, and a number of other folks who were really into this work. It's kind of reaffirming that when you have something like this happen you get the public support, you get the outcry and the encouragement from the folks who actually want to use it. Because it's great to see and it was super satisfying. Even though we were sort of in the behind-the-scenes kind of work, it was awesome—a great day out.

Lizzie: The days that do stand out to me have a lot in common. Those days were days that I was participating in conferences that PEC ran—our deep decarbonization conference, the Industrial Heartlands Trail Coalition summit in Morgantown, and the CRTI trails conference that happened in Philadelphia. What was so interesting about those days, what felt so great about them, was participating in something that was bigger than me and bigger than our office, that felt truly statewide.

It was also seeing all these partners come together from outside of the organization looking to PEC for its leadership, and having conversations that were all the more fruitful because of our diverse

perspectives. Those moments with conferences for me were like hanging out with my colleagues at PEC and feeling like we were part of a team, that those are all special.

Kadafi: My best days at PEC are when I go into schools to do outreach because kids are our future, and I think going to these classrooms to teach kids what they can do to keep the water clean is very valuable. I like to interact with the kids, having the cleanup, mark storm drains with the kids; teaching the kids, that they should care more and keep the environment clean.

Nate: One of my favorite days at PEC has been convening a community outreach meeting in Upper Bucks County regarding the Liberty Bell Trail corridor. What was so exciting was being able to see so many different stakeholders there interested in the possibility of a trail being built through their community. Many of these stakeholders we weren't aware of before, so it was just fascinating being able to have conversations with them at the event, learn what contacts they had and have them connect us with other stakeholders for key person interviews and focus groups down the road. It made me realize that even though we might think perhaps not that many people would care, more people care than we realize.

What do you think is the most critical environmental issue facing your generation?

Lizzie: I'm going to say the way that climate change is displacing populations from their homes, so climate refugees.

Laura: Just to add onto what Lizzie said. The effect that the climate change crisis really is going to have on our food production, and how that's going to affect our food supplies and specifically those less fortunate than us.

Kadafi: I believe one of the biggest environmental problems we're facing is water pollution. In particular, plastics in our oceans. There are tons of plastic in our oceans. There are reports that the plastics will one day, if not already, outnumber the number of fish in our oceans. I believe that's one of the biggest problems we're facing right now.

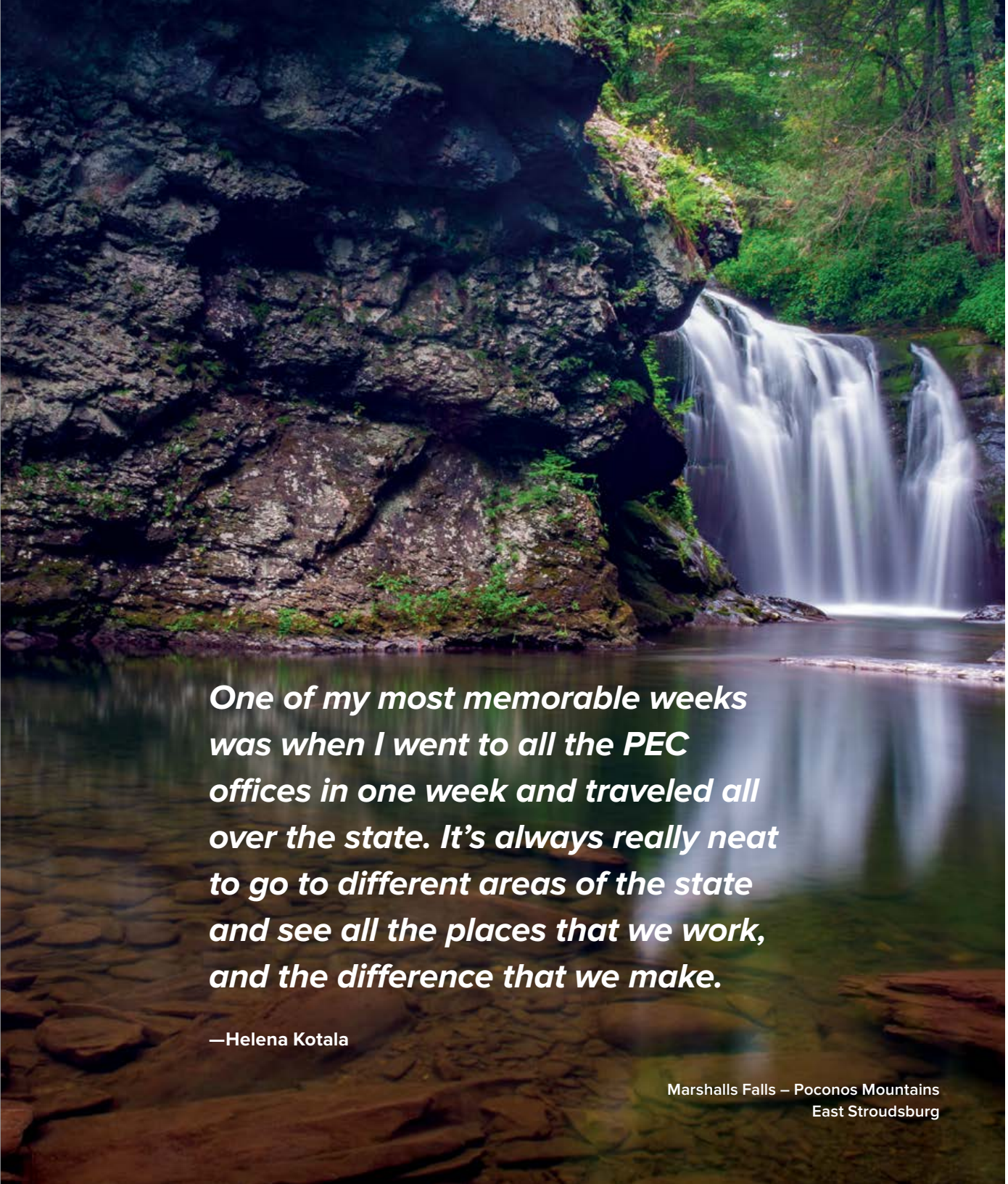
So if you were in charge of the world, what would you do?

Kadafi: One thing I would do is ban plastics, since plastics are in our oceans and are polluting our oceans. So I would ban plastics.

Lizzie: I learned recently that if we put a mile of solar panels in the Sahara, we would have enough energy created by those solar panels to heat the world or something bonkers that seemed like it shouldn't be true but was. Upon asking, "Then why isn't that happening?" the answer is, "Well, politics." I feel like the public perception and the political context of all of the things that we're talking about is kind of at the crux of how things do or do not get changed. So maybe my answer is just that the one thing that we can do is vote and tell our friends and family to vote for environmental issues.

Chris: In a similar vein of what Lizzie brought up is work to change and broaden the perception of people on the impact that even the small things can make. Especially now we're kind of in a climate where things are polarized—ideas and people to a huge degree—and trying to remember that all these things are connected. It's like the John Muir quote: "You tug on something, you find it's connected to everything else in the universe."

So everybody's point of view has merit, but making sure to consider all those points of view as you go forward together is how we're going to make some positive change. It's definitely not going to be easy overall, but there are definitely some good opportunities for renewable energy resources. Making that more of a priority, using and expanding active transportation options to cut down on personal vehicle use, a lot of small ones that will add up really quickly if we direct our focus in that way.



One of my most memorable weeks was when I went to all the PEC offices in one week and traveled all over the state. It's always really neat to go to different areas of the state and see all the places that we work, and the difference that we make.

—Helena Kotala

Marshalls Falls – Poconos Mountains
East Stroudsburg

Last question. If you could be president of PEC for a year, with no repercussions afterwards, what would you do in that year?

Laura: I don't know enough to really speak about it, and I think we're moving in this direction, but I would really love to see PEC take a hard stance in what we do in our climate work, and to not tip-toe around climate change. Put our flag in the ground and then leave it up to [John] Walliser because he knows what he's doing.

Lizzie: I really like Laura's answer. I think we should take a hard stand on pushing renewables forward on a state level. Being a lot more vocal about climate change.

Chris: It's a heavy question overall, but if I had one thing that we could do it would be to buy and operate the PEC shuttle, which is designed to get people from places where they live to places where they can recreate and experience the benefits of outdoor stuff. I think it's the biggest hurdle for a lot of groups. Being able to experience and build that investment in those spaces is actually in getting there. So that's what I would do.

Helena: Building on what Chris said, I would start running some guided trips or experiences for people to get out in the outdoors for free. Because I think a lot of people just don't go out there, and I think that once you get people outside and appreciating nature they are more likely to want to

I became interested in the environment when I was a kid. I was always outdoors. For gifts I always asked for microscopes, telescopes, and butterfly nets. I always had an interest in looking at insects, catching insects, and playing outside.

—Kadafi El-Kardah

protect it. So I think that's one of the first steps in changing peoples' perceptions and giving them that experience.

Nate: I would convene focus groups in underserved areas where trails are most likely to be built over the next five years and make sure that the residents have a say in the trail development process. Put them in the lead of the projects like the Schuylkill Banks in Grays Ferry. Make sure that neighborhood councils have a front-row seat to the decisions being made trail-wise. Give them a sense of ownership of trails being built through their neighborhoods.

Kadafi: If I was president of PEC for a year, I would try to engage kids more. Reaching out to more schools since kids are our future. Getting kids on board, maybe starting a program just for kids so they could take care of their environment. Reaching out to people of all ages, all backgrounds. No matter which religion, race, sexuality—you know, including everybody into our decisions. ■

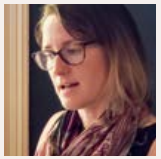
The Panel

As a program coordinator, **Chris Corbran** provides support for the Industrial Heartlands Trail Coalition, assists with meeting facilitation, and maintains the IHTC website. Chris has spent much of his career helping others access opportunities for outdoor recreation through his work with Venture Outdoors, Golden Triangle Bike, and Bike Pittsburgh. He holds a bachelor's degree in Urban Studies and Community Planning from the University of Pittsburgh.

Nate Dorfman is a trails program coordinator at PEC, whose work is aimed at advancing the Circuit Trails network in greater Philadelphia. A Philadelphia native, Nate holds a bachelor's degree in government from George Mason University and a master's degree in public administration from the University of Pittsburgh.

Kadafi El-Kardah is a community engagement specialist in PEC's Southeast Regional Office. He is responsible for supporting PEC's work with the implementation and adoption of green stormwater infrastructure (GSI) with a focus on promoting the Philadelphia Water Department's Green City, Clean Waters initiative. Kadafi has a B.S. in environmental science from La Salle University.

Laura England is a program coordinator whose work at PEC focuses primarily on landscape conservation and the coordination of project activities and outreach events. Previously, Laura worked as a marketing specialist for PEC's River Town Program. A Pennsylvania native, Laura earned her bachelor's degree in marketing from West Virginia University and is a first-generation graduate in her family.



Lizzie Hessek joined PEC in 2013 and has worked on projects that developed solutions for social and environmental challenges facing communities in France, Brazil, Chile, and the United States. Lizzie holds a master of city planning and a master of science in historic preservation from the University of Pennsylvania, as well as a degree in geography with a concentration in urban and rural planning from the Sorbonne University in Paris.

Helena Kotala came to PEC in 2018 with an eclectic background in outdoor recreation, mapping, storytelling, and environmental stewardship. A 2013 graduate of Penn State University, she holds a B.S. in geography and geographic information systems. She worked as a field assistant in Alaska and Japan for the Vegetation Dynamics Lab.

Joseph DeMarco

Board of Directors, Pennsylvania Environmental Council, 1998–2008

As a representative of Procter & Gamble, I always thought that PEC was a good place for me to be spending some of my professional time. At the time, I was the public relations manager for a paper products manufacturing facility in northeastern Pennsylvania, and my involvement with PEC began though the Northeastern Pennsylvania Environmental Partnership Awards. We continue to be co-sponsors of those annual awards.

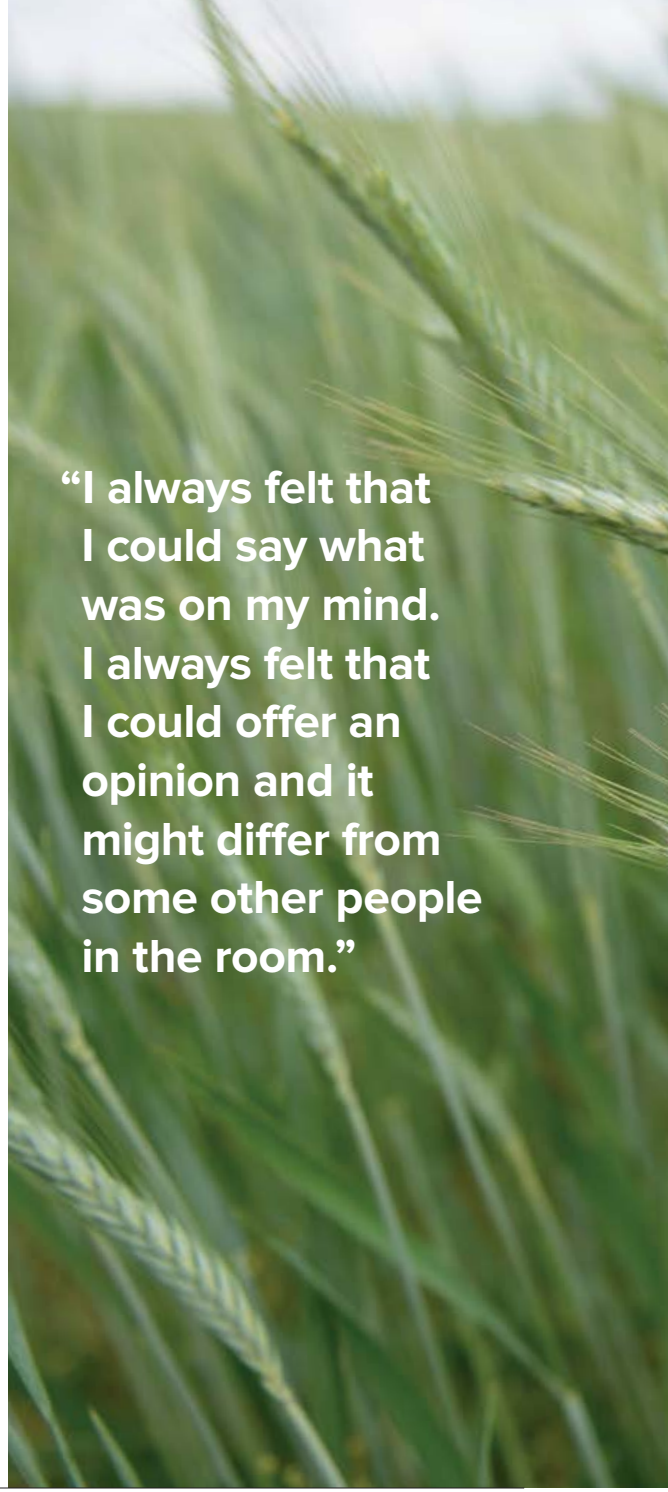
The people at PEC have always impressed me as being engaged and serious about what they were doing. They understand that if anything is going to be done to solve some of our environmental problems, it has to be done collaboratively. There has to be broad engagement of stakeholders.

They work to get people engaged and to bring people on board; to reach collaborative relationships and solutions with broad groups of stakeholders.

On the board of directors, I always felt that I could say what was on my mind. I always felt that I could offer an opinion, and while it might differ from the opinions of other people in the room, I always felt that I could say things that were critical of a direction.

The final piece of advice I gave before I left the board was for PEC to continue doing what they're doing and the way they're doing it. A lot of institutions take on things that are not related to their mission. They lose their way and therefore they get off in strange territory with things they're not really good at. I was chair of another statewide board for six years, and I can remember the director coming before the board with a proposal of something that she wanted to do and that she was taking the organization in that direction. I asked, how does that fit with our mission and our priorities? What I heard was, well, we can get money to do that.

It's getting harder and harder for institutions like PEC to make their case. And it's only going to get harder. We've got leaders who are denying the existence of problems, and we've got others who say that even if there is a problem, they're not willing to do whatever is necessary. I worry about that because my grandchildren are going to face things that I never had to face. The problems are only getting bigger, so I would encourage PEC to remain strong. ■



THE NEXT 50

New Perspectives on Where We Go From Here

As we look ahead at the next year, the next decade, and the next 50 years, we wonder what will the future hold? What environmental challenges, seen and unforeseen, lie ahead for future generations? More important, will the lessons learned since the world's first Earth Day inform public debates on environmental issues not yet envisioned?

We asked two highly respected environmental professionals with unique perspectives on these questions to share their thoughts on the environmental issues that face Pennsylvania. The views expressed here are their own, but the serious questions they pose are important considerations for framing discussions on the future of conservation and environmental protection in our world.

Dr. Aurora Sharrard of the University of Pittsburgh and Nathan Boon of the William Penn Foundation invite us to confront the inevitable question, "Where do we go from here?"

THE NEXT 50:

THE ONLY CONSTANT IS CHANGE

Aurora Sharrard

Research findings show that we underestimate the environmental concerns of vulnerable populations, who also collectively underestimate their own and others' environmental concerns.

As we celebrate 50 years of environmental success and effort in Pennsylvania, it's astounding how far we have come—and how much further we still have to go. While we stand on the shoulders of some remarkable policymaking, executing, and creative giants, I am simultaneously invigorated by how much progress has been made, humbled by the struggles we are still mired in, and stunned by the magnitude and extent of the journey that remains ahead of us.

Looking both back and forward, the only constant in the past 50 years of environmental progress, effort, and cooperation is transformational change—and we should expect nothing different in the next 50 years. The primary questions before us are: Will we be proactive, or will our planet be the change we are reacting to? And can every one of us participate in and benefit from our efforts? The answers are up to us.

We are now in a geologic epoch dubbed the Anthropocene, reflecting the significance of humans' past 75 years of impact on the planet's climate and environment. In this new age, the single largest environmental obstacle we have created is clearly climate change; the science is unquestionable and the planetary changes far too numerous to ignore. Whether you live in a city, in a town, on a cul-de-sac, or on a farm, it's obvious that we are all increasingly at the mercy of a warming, wet, and unpredictable planet.

Why is Earth so volatile? While on land we're still unable to make peace within our species, the reference here is to our planet's inability to host through the next century with its atmospheric balance askew—and it is fighting us at every turn.

While some debate the details, others have been studying, deploying, and proliferating solutions, acknowledging that there is no time to spare. "Climate anxiety" is a real phenomenon people are wrestling with worldwide, including many youth. It's rather sobering for 16-year-olds to voice the concern that they may not have an opportunity to live their full lives on this incredible blue sphere, especially when we have the solutions to mitigate climate impacts, but not the collective will to take action on them.

While the sheer scale and relative speed of what we're facing with climate change is massive, our only option is to move forward; but we must do so on the same side, instead of competing with and opposing each other, which we seem to do at every decision and turn.

The solutions we need now must be bigger, move faster, be actionable, and happen with consensus. They must be simultaneously focused globally, nationally, regionally, and locally, increasing quality of life for all, while fighting our invisible, gaseous nemeses.

We know what we must do—focus on reducing greenhouse gas emissions from buildings, industry, transportation, agriculture, waste, and energy. We all must conserve. We all must upgrade. We must use our feet and brains more, engines and combustion less. We must be more plant-based and local. We must embrace new technologies, change our behavior, and embrace diversity to make demonstrable progress. And we must make sure our local and global neighbors also shift—and do this all across every sector, community, and country, now, as quickly as possible.

As we celebrate 50 years of environmental progress in Pennsylvania, we have only begun to change, but change we must, and, I believe, change we will.

We must work together to create the change needed to reduce greenhouse gas emissions in Pennsylvania while improving quality of life for all.

Change is hard, but oh so familiar, because it is change that has brought us here.

We are already changing for the better, but we can misjudge our individual and collective interest in doing so. Research findings show that we underestimate the environmental concerns of vulnerable populations, who also collectively underestimate their own and others' environmental concerns. The very constituencies we must be working with to gain broad participation in environmental decision-making are supportive, but we must consciously ensure that they are represented, engaged, and amplified partners, especially from frontline and fence-line communities.

We are already changing for the better, but our collective voice is quiet, when it should be amplified. Nationally, "We Are Still In" is a U.S.-based effort 3,800 leaders strong, promising to "world leaders that Americans would not retreat from the global pact to reduce emissions and stem the causes of climate change." Over 2,200 businesses, 285 cities and counties, and 10 states are making active, bipartisan progress toward meeting the global carbon reduction targets laid out before us by the Paris Agreement.

We are changing for the better; we just need to look in the mirror and create more reflections. In Pennsylvania alone, there are over 90,000 clean energy jobs, a nearly 60% increase since 2014 (with most in construction and manufacturing); two out of three Pennsylvania clean energy employees work in small businesses. Our economic livelihood is linked to our success in combating climate change, while demonstrating that everyone benefits from a thriving clean economy.

We are all already changing for the better, but we need to continue to harness regenerating opportunities that reflect financial markets. The trend of energy production costs has starkly shifted toward renewable technologies, with Pennsylvania already reflecting that transition. In the Commonwealth, we have 1,300 megawatts (MW) of wind power from 27 wind farms; 354 MW of solar power generation installed at nearly 19,000 homes, farms, and businesses; 892 MW of conventional hydropower; and 1,583 MW of pumped storage hydropower capacity. By ensuring that Pennsylvania's renewable requirements are met with in-state installations, we create jobs that can't be outsourced, assets that won't be non-competitive, and communities that build themselves and people up for success.

We are changing for the better, following old, new, and emerging leaders. In Pittsburgh, Philadelphia, and Erie, over 150 companies and property owners representing over 112 million square feet of building space are committed to reducing building energy and water use 50% below baselines by the year

"Climate anxiety" is a real phenomenon people are wrestling with worldwide, including many youth.

2030, while reducing transportation emissions from commuters just as much. Pennsylvania boasts 20% of all building square footage committed to these goals in North America—and is reaching for these measured performance goals across 283 miles.

We are changing for the better, and have been for some time. Higher education institutions are known for developing new innovations and future leaders, but 22 colleges and universities in Pennsylvania are committed to carbon neutrality—some since 2008, a couple by 2020. They stand with 420 others nationwide making active progress toward these goals, while investing in their communities, training the next generation, and ensuring that the future is one based in knowledge, informed by history, and steeped in innovation, creativity, inclusivity, and collaboration.

We are changing for the better, in institutions small and large. The University of Pittsburgh is one of many colleges and universities answering the global call for climate action by championing not just blanket greenhouse gas reductions, but sustainable food practices; local, renewable energy sources; green building design and operations; healthy lifestyles; and more. Regional and global partnerships ensure that universities remain inspiring leaders and innovators for each other, but also for students, faculty, staff, community members, and visitors from around the world.

Regional and global partnerships ensure that universities remain inspiring leaders and innovators for each other, but also for students, faculty, staff, community members, and visitors from around the world.

Together, we have changed—and we must continue to be catalysts for positive change at all levels so that we can have compounding, transformational impacts on people and the planet.

We must work together to create the change needed to reduce greenhouse gas emissions in Pennsylvania while improving quality of life for all. By embracing change, taking action, and working together, we have individual and shared opportunities to control the course of our collective environmental journey, while bettering lives locally and globally. The past has brought us here, but our fearless commitment to a shared equitable future will ensure that Pennsylvanians are part of the change the world needs. ■

Dr. Aurora Sharrard is the director of sustainability at the University of Pittsburgh, where she leads university-wide sustainability strategy, activities, policies, and partnerships aimed at positioning the university as a sustainability leader at the city, state, regional, national, and international levels. Previously, she was the executive director and vice president of innovation for the Green Building Alliance in Pittsburgh.

THE NEXT 50:

PENNSYLVANIA'S EVOLVING LEGACY

Nathan Boon

In 2020, the environmental movement cannot ignore the 20% of Pennsylvanians who identify as black or brown.

The intractable environmental problems can be solved. The prohibitively expensive can be financed. The self-interested can be moved to common cause. And regardless of the difficulty or expense, our environment is always worth it. Generations of environmental leaders have mobilized in their turn to accomplish the impossible, drawing inspiration from nature to ensure its preservation for those that would follow. These are the aspects of Pennsylvania's conservation legacy that will guide the rising generation of environmental leaders through the next 50 years.

As a water resources professional, I am unsurprised to see water's influence across the pantheon of Pennsylvania's environmental leaders. Rachel Carson first drew inspiration from the ocean for the early work on shorebirds that would later lead to her game-changing call to action on pesticides. Franklin Kury writes of the formative experience that seeing his neighborhood creek turn black with sewage had in developing his own environmental ethic. Even Gifford Pinchot, patron saint of the forested landscape, drew on humanity's most sacred obligation to characterize the role those lands play in providing for our waterways, characterizing the relationship between forests and rivers as one of parent to child: no parent—no child.

Each of these leaders, armed with the science of their times, galvanized the support needed to confront the environmental issues of their day. Indeed, each saw ample opportunity to have their mettle tested, as environmental degradation appears as much a pattern of our inheritance as Pennsylvania's spirit of perseverance. For the last 50 years and the 50 prior, Pennsylvania has cycled through the consequences of unchecked consumption and unmitigated waste. Our commonwealth has seen its forests razed for timber, its mountains rendered for ore, its skies rain acid, and its rivers run black.

But I also wonder at the limitations imposed upon past leaders by the lack of available data—what may have constrained their vision of future possibilities? When James Henderson Duff led the Schuylkill River Restoration, did he imagine that waters black with coal dust would give way to waters black with sewage? Could Maurice Goddard, champion of our state parks, anticipate the consequences of extracting not timber but shale gas from those same landscapes? Did PEC's founders

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appreciate that the Clean Water Act's success in reining in municipal and industrial point sources would reveal the rise of comparable threats from sprawling development and industrialized agriculture?

For the rising generation of environmental leaders, the quality of today's science and data provides an unprecedented level of insight into our environmental future. What else can we do with this knowledge but act dramatically? The very nature of the current climate crisis compels those attaining positions of authority and influence to confront entrenched patterns of consumption with urgency and conviction. Let the New Deal of the 1930s give way to a Green Deal for the 2020s. May the billions invested through the Clean Water Act multiply tenfold for a shared climate agenda. And let the patriots and freedom fighters that would mobilize for civil rights find common cause in a new movement for climate justice.

The magnitude of the climate crisis is such that we truly cannot afford to act alone. The nature of our challenge transcends traditional and historical divisions, creating new opportunity and new urgency to embrace perspectives and resources that have been historically ignored by mainstream conservation and underrepresented within the environmental movement.

The last 50 years have seen the modern environmental movement increasingly embrace the reality that our success is shaped by women as much as by men. I look to the immediate future and commit my peers to ensuring that the same can be said for

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environmental leaders of every race and ethnicity. The climate crisis is an "all hands on deck" affair, and this movement cannot afford to ignore or dismiss allies who bring desperately needed resources and unique expertise.

Across the years, we observe environmental leaders defined as much by their love of the outdoors as by their abhorrence of its desecration. Moving forward, we must acknowledge the common values that traditional conservation interests share with the more racially diverse movements for environmental and social justice, our shared affinity and our shared outrage, and the differences and disparities in how those values manifest. Let us visit the principles of equity and consider: Who has high-quality access to the outdoors? Who is directly subjected to the harms of pollution?

Throughout this last century, so many in the environmental movement, myself included, can trace their careers back to formative experiences with outdoor recreation. Be they physical, cultural, or environmental, where barriers to those experiences break down by race, they are intrinsically unjust and must be confronted. Our rivers and forests must support a thriving culture of outdoor recreation for urban and rural communities of all races. Notions of affinity for the land and for outdoor recreation must reference and respond to our nation's legacy of racism, to the systematic divestment of black and brown families from their land, and to their history of exclusion from parks and swimming areas. It is the work of this generation to redress our living legacy of both environmental contamination and racial segregation.

Do we lovers of quiet places find ourselves outraged as much by the environmental degradation experienced at home as by the loss of far-off wild places? There is disparity in how Pennsylvanians experience these outrages to the environment, disparity that is too often dictated by race or income. This must inform our renewed efforts to build power and work in coalition. In 2020, the environmental movement cannot ignore the 20% of Pennsylvanians who identify as black or brown. How else can we imagine success for the next 50 years as this population is projected to double?

Ideas of what constitutes an authentic or worthy representation of nature must be revisited, as must our programs of investment in the essential work of protecting and restoring our environment. We must ask the hard questions. Who stands to benefit most from investments in open space preservation when a Pennsylvania-specific sample of national survey data reveals exactly zero non-white owners of farmland or large forest tracts in a state where non-white individuals comprise an entire fifth of the population? Conversely, who stands to benefit most from investments in restoring our most degraded landscapes when the majority of Pennsylvania's registered brownfields and pollution permit violations are located in environmental justice communities defined by their racial diversity as much as by their economic disadvantage? Is the intractable issue of our day the legacy of fossil fuels, or is it the legacy of systemic racism? Principles of intersectional movement building would call this out as a false choice, as false as the choice between individual responsibility and corporate accountability.

We have an opportunity to align environmental mores with the most powerful and culturally resonant values of our times, in the context of the most urgent environmental crisis of our times. Our coalitions will be founded on principles of equity and justice as much as on our love for green space and flowing water. If we center our work on people, we know exactly who will speak for the trees—people, just as it has been all along, across generations of environmental leaders.

My generation gets criticized for its sense of entitlement, and it's true, we are very demanding. We demand our right to equal opportunity, equal pay, equal treatment—and as Pennsylvanians, we further demand our right to clean air, pure water, and the preservation of the natural, scenic, historic, and aesthetic values of the environment! Of course, it isn't enough to just demand these ideals. We have to work for them, and the work only goes faster the more hands we bring to the task. ■

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