



Rise Up
for a
Healthy Environment

The Pennsylvania Common Conservation Agenda

1st Edition



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Contents



2 Introduction



4 Executive Summary

5 Strengthen the 21st Century Workforce through Green Jobs



6 Champion the Great Waters of Pennsylvania from Source to Tap



8 Provide the Department of Environmental Protection and Department of Conservation and Natural Resources with the Needed Resources to Fulfill Their Missions



9 Improve the Department of Environmental Protection's Ability to Protect the Public from Threats Posed by Natural Gas and Petrochemical Infrastructure



10 Ensure Environmental Justice for Vulnerable Communities

11 Boost Current Investments in *Growing Greener*



12 Bolster the Commonwealth's Clean Energy Sector

14 Appendix I: Expert List

C3 Coalition Partners

Introduction



“THE PEOPLE
HAVE A RIGHT TO
CLEAN AIR, PURE
WATER, AND THE
PRESERVATION
OF THE NATURAL,
SCENIC, HISTORIC
AND ESTHETIC
VALUES OF THE
ENVIRONMENT.”

Dear 2018 Candidates for Pennsylvania Governor:

The undersigned organizations respectfully present the first ***Pennsylvania Common Conservation Agenda*** for your consideration. For the first time, these groups have come together to identify the most pressing problems facing our Commonwealth’s environment and to offer solutions that Pennsylvania’s next governor can enact using his or her executive authority.

Our organizations work to conserve Pennsylvania’s natural environment through a variety of means. Some directly purchase and preserve land, some work through the courts to ensure that environmental laws are enforced, some directly engage communities most impacted by pollution, some perform on-the-ground recreation and restoration work, and some build grassroots support for environmental improvements. (See page 14 for a list of expert organizations in each subject area.) We represent nearly one million Pennsylvanians from every corner of the Commonwealth, from every political party and from all walks of life.

While our organizations have overlapping, but not identical, missions, and a wide range of approaches to various environmental issues, we are united by the belief that Pennsylvania’s environment matters – that a healthy environment renders possible the governance, education, business, and recreation that the people who live and work in our Commonwealth need, expect, and depend on. Clean water and healthy air are critical to the health, welfare, and quality of life of these residents. Open spaces connect us to nature and filter the air and water we need, and clean energy opens doors to a growing and sustainable economy.

We also believe that a healthy environment is compatible with a strong business climate. Most sectors of the state’s economy – agriculture, recreation, and tourism, to name a few – depend on clean water, clean air, arable soil, vibrant parks and trails, as well as a stable climate. Our food producers, transportation companies, distributors, and retailers depend on the agricultural products produced by Pennsylvania farms. Maintaining and enhancing our environment and supporting the expansion of our clean energy sector creates growth opportunities for new and established businesses in the state, creates jobs, and boosts the state’s economy.

Pennsylvania’s governor holds tremendous power over its environment and has a constitutional responsibility to defend it, described in Article 1 § 27 of the Pennsylvania Constitution:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic 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.

If you are elected governor, we expect that you will stand up for these rights, and we intend to work with you to protect and preserve the health of Pennsylvania’s citizens and the environment that sustains them.

In the sections of the Agenda that follow, we discuss the environmental challenges facing Pennsylvania and offer a series of policy solutions that can and should be enacted by the next governor. Throughout the 2018 campaign and the next governor’s tenure, our coalition will seek to advance these recommendations. Our efforts will include reaching out to the public and encouraging them to engage with the gubernatorial candidates and speak out on behalf of the solutions proposed in the Agenda. Our goal is to make sure the environment is a major campaign issue.

So, let the Agenda be a catalyst for conversation. Ask us questions. Share your plans to protect Pennsylvania’s air, land, and water. Brainstorm new ideas. Together, we can do great things for the people of Pennsylvania.

Sincerely:

Audubon Society
Center for Coalfield Justice
Clean Air Council
Clean Water Action
Conservation Voters of Pennsylvania
Environmental Defense Fund
Foundation for Pennsylvania Watersheds
Green Building Alliance
Green Building United
Lacawac Sanctuary
League of Women Voters of Pennsylvania
National Parks Conservation Association
National Wildlife Federation

Natural Lands
Natural Resources Defense Council
The Nature Conservancy – Pennsylvania Chapter
PennEnvironment
PennFuture
Pennsylvania Environmental Council
Pennsylvania Land Trust Association
Pennsylvania Parks and Forests Foundation
Sierra Club Pennsylvania
Sustainable Pittsburgh
The Trust for Public Land
Women for a Healthy Environment



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Executive Summary

“PENNSYLVANIA
HAS THE THIRD
WORST AIR
QUALITY IN THE
UNITED STATES.”



The Pennsylvania Constitution requires that our state government defend the right of the citizens “to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment.” Despite this mandate, Pennsylvania has the third worst air quality in the United States. In some of our cities, one in three children suffers from asthma. Pennsylvania ranks among the states with the highest risks for lead-contaminated water. Nineteen thousand miles of our streams and rivers are unsafe for drinking, recreation, aquatic life, agriculture, or industrial use. An impaired environment threatens our agriculture and tourism industries, while we miss opportunities to take advantage of the world’s transition to clean renewable energy.

Pennsylvania’s leading conservation organizations have joined together to identify the most promising solutions to Pennsylvania’s environmental challenges. They are proud to offer these solutions in the first-ever *Pennsylvania Common Conservation Agenda*.

These solutions not only promote a cleaner environment and a healthier economy, they are publicly popular and can be enacted by our next governor using his or her executive authority. While a handful of these solutions involve additional state spending, in virtually every instance, the increase in spending will be offset through job growth, revenue growth, energy savings, and/or lower healthcare costs. We also include proposals for increasing public investments in the private sector and attracting more capital for Pennsylvania companies. Among our chief recommendations:

- Issue strong rules limiting methane pollution from new and existing oil and gas sources.
- Maintain a ban on new gas leasing in our state parks and forests.
- Expand protections for Pennsylvania’s waters by proposing a legislative package to address lead in drinking water that includes the establishment of dedicated state funds for lead service line replacement.
- Establish an interagency working group with a focus on environmental justice; this group should promote integrated solutions for vulnerable communities through collaboration across traditional boundaries.
- Sign an executive order that requires high-performance green building standards for major construction or reconstruction projects involving buildings owned or significantly leased by the Commonwealth.
- Invest in workforce training programs that provide displaced workers and new workforce entrants with skills in clean technology areas like energy efficiency, renewable energy, and clean transportation.
- Oppose any effort, and veto any budget, that diverts money from the Environmental Stewardship Fund or the Keystone Recreation, Park, and Conservation Fund.

There is one consistent theme throughout the *Pennsylvania Common Conservation Agenda*: a healthy environment is best for everyone in Pennsylvania – children, families, workers, retirees, businesses – now and in generations to come. We will bring this agenda to the people of Pennsylvania in order to spark productive conversations about the future of the environment in our state. We hope you will join that conversation.

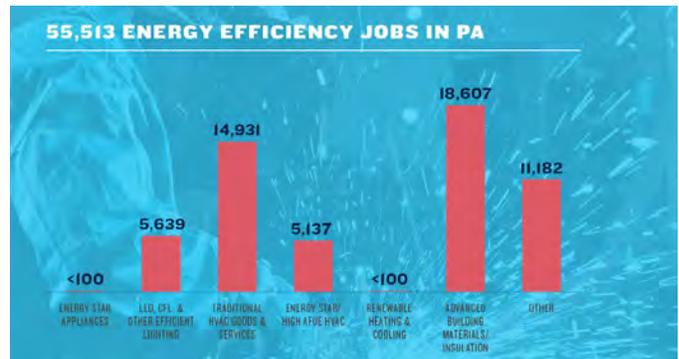
Strengthen the 21st Century Workforce through Green Jobs

Pennsylvania has supported investments in the 21st Century workforce by refocusing economic dollars and shifting strategies to employment opportunities that produce goods and provide services benefiting the environment and conserving natural resources. Currently, there are nearly 170,000 green jobs across the Commonwealth, including 70,000 clean energy jobs, 14,000 clean water jobs, and 15,000 waste management and environmental services jobs.¹ There are more than 9,000 environmentally-conscious companies doing business and employing our citizens.

These investments have been a significant job generator for Pennsylvania. Clean energy jobs grew by over 6 percent in the last year.² These jobs can be found in every county in Pennsylvania, from the Laurel Highlands to the Lehigh Valley. Philadelphia County has about 3.5 clean energy jobs for every 1,000 residents, while Allegheny County has just over 6, and Montgomery County has almost 7. Combined, Pennsylvania's rural areas have nearly 10,000 jobs in the clean energy sector. Expanding upon this demand, clean energy businesses are expected to grow at a similar rate for years to come.

An opportune industry for further growth is mine land reclamation. \$30 million in funds from the U.S. Department of Interior's Abandoned Mine Land Reclamation Economic Development Pilot Program have already brought jobs to furloughed miners in PA. But more than \$4 billion is still needed.³ Bipartisan legislation currently pending in Congress seeks to direct reclamation resources toward new investments in jobs and opportunities. If passed, the RECLAIM Act would provide \$67 million annually to Pennsylvania over five years.

Additionally, hundreds of millions of dollars in Pennsylvania Infrastructure Investment Authority funding are available to invest in the Commonwealth's clean water infrastructure, while our water sector confronts an aging workforce. Leadership from the governor's office could help stimulate growth and support hiring and recruitment for the next generation of clean water professionals.⁴ With plans at the federal level to invest more than \$1 trillion into the nation's infrastructure, leadership from the next governor could position the state to benefit from any new funding and capture our fair share of a projected 1.3 million new clean water jobs nationally.⁵



The bulk of Pennsylvania's 70,000 clean energy jobs are in energy efficiency. Source: Environmental Entrepreneurs (E2) and Keystone Energy Efficiency Alliance (KEEA), *Clean Jobs Pennsylvania 2017*, based on 2016 data.

Pennsylvania's next governor should exercise diligent leadership in strengthening the Commonwealth's 21st-century workforce through green jobs.

POLICY SOLUTIONS

- Invest in workforce training programs that provide displaced workers and new workforce entrants with skills in clean technology areas, including energy efficiency, renewable energy, and clean transportation.
- Grow the green business sector by participating in recruitment trips to the top companies around the country to advocate for expansion or relocation to the Commonwealth.
- Instruct the Department of Community and Economic Development's Manufacturing PA initiative to focus on workforce development and job opportunities in clean energy manufacturing.
- Expand the Department of Labor and Industry's Apprenticeship and Training Office to focus on clean energy trades.
- Develop an in-depth economic plan in concert with strong clean energy policies that includes opportunities for displaced workers, openings for a diverse workforce, considerations for rural and impacted communities, and innovative workforce investments.
- Offer active public support and leadership to help the RECLAIM Act become law.

¹ "Water work: jobs related to water utilities," U.S. Bureau of Labor Statistics, accessed April 2, 2018, <https://www.bls.gov/careeroutlook/2017/article/water-utility-jobs.htm>.

² E2, *Clean Jobs Pennsylvania 2017*, August 31, 2017, <https://www.e2.org/cleanjobspa/>.

³ "Are McConnell, Congress friends of coal miners and their communities? We're about to find out," *Lexington Herald-Leader*, December 06, 2016, <http://www.kentucky.com/opinion/editorials/article119280148.html>.

⁴ Pennsylvania Infrastructure Investment Authority, *2016-2017 Annual Report*, http://www.pennvest.pa.gov/SiteCollectionDocuments/Executive_Docs/PENNVEST_2016-2017_Annual_Report.pdf.

⁵ The Value of Water Campaign, *The Economic Benefits of Investing in Water Infrastructure*, March 2017, http://thevalueofwater.org/sites/default/files/Economic%20Impact%20of%20Investing%20in%20Water%20Infrastructure_VOW_FINAL_pages.pdf.

Champion the Great Waters of Pennsylvania from Source to Tap

Pennsylvania's rivers, lakes, and streams sustain the health of our families, support our recreation economy, and are a foundation of the Commonwealth's economic competitiveness. Too often, we treat these surface waters with less care than they deserve. Likewise, the Commonwealth's aging housing stock, public buildings, drinking water treatment systems, and water pipelines raise serious concerns about the quality of drinking water in many communities. The next governor must seize the opportunity to tackle both old and new water quality concerns and make clean water a Pennsylvania hallmark.

The great waters of Pennsylvania, harmed by a centuries-long legacy of industrial and agricultural pollution, face new challenges from stormwater runoff, rapidly expanding natural gas infrastructure, pharmaceuticals, lead, and other contaminants of emerging concern. Pennsylvania ranks among the states with the nation's highest risk for lead-contaminated water.⁶ Lead contaminates drinking water when water with high acidity or low mineral content corrodes well pumps and service lines containing lead. Last year alone, service lines in more than 4,000 Pittsburgh households were suspected of leaching high levels of lead, and more than 61 percent of Pennsylvania's drinking water wells are potentially corrosive. The damaging effects of lead exposure, particularly among children, have been well-documented in research. Lead exposure can cause deficits in intellectual functioning, academic performance, and neurological development that affect lifelong success. Nationally, the damage to intellectual functioning sustained by lead-exposed children has reduced lifetime earnings by \$165-\$233 billion.⁷

One of the most effective ways to ensure clean water at the tap is to provide adequate protection at the source. River basins serve as the foundation for the health and economic well-being of Pennsylvania communities. While the Delaware River Basin traverses four states – New York, Pennsylvania, New Jersey, and Delaware – nearly 50 percent of the basin's total land area lies in the Commonwealth. Its watershed supplies drinking water to more than 17 million people, including residents of the state's most populous city, Philadelphia.⁸ The fishable and swimmable portions of its waters support a recreational economy valued



at \$1.8 billion.⁹ The Susquehanna River Basin provides drinking water for more than 6 million people and is one of the nation's best smallmouth bass fisheries.¹⁰ Three million people drink from the Ohio River, and \$43 billion in commodities is transported along the river and its tributaries each year.¹¹

Despite their economic and cultural value, the Commonwealth's water basins remain dangerously vulnerable to pollution.

⁶ Kenneth Belitz, B.C. Jurgens, and T.D. Johnson, *Potential corrosivity of untreated groundwater in the United States*, (Lakewood, CO: U.S. Geological Survey, 2016), <https://pubs.er.usgs.gov/publication/sir20165092>.

⁷ The Pew Center on the States, *Cutting Lead Poisoning and Public Costs*, February 2010, http://www.pewtrusts.org/~media/assets/2010/02/22/063_10_paes-costs-of-lead-poisoning-brief_web.pdf.

⁸ "Delaware River," *American Rivers*, accessed April 2, 2018, <https://www.americanrivers.org/river/delaware-river/>.

⁹ Gerald J. Kauffman, "Economic Value of Nature and Ecosystems in the Delaware River Basin," *Journal of Contemporary Water Research @ Education* 158, no. 1 (August 2016): 98-119, <http://onlinelibrary.wiley.com/doi/10.1111/j.1936-704X.2016.03222.x/full>.

¹⁰ American Rivers, *America's Most Endangered Rivers*, 2016, https://s3.amazonaws.com/american-rivers-website/wp-content/uploads/2016/02/20135708/MER2016_FullReport.pdf.

¹¹ Pennsylvania Department of Conservation and Natural Resources, *Ohio River Basin Facts*, http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_20031262.pdf.

More than 491,000 tons of sediment deposits enter into the Delaware River Basin annually due to agricultural and abandoned mine drainage. Similar challenges confront the Susquehanna River Basin, which continues to face water quality threats from agricultural and stormwater runoff, abandoned mine drainage, and other forms of pollution. In 2016, the Department of Environmental Protection listed four miles of the Susquehanna as impaired for recreation. The Ohio River Basin also faces water management issues, and unlike the Delaware and Susquehanna, it lacks a basin-wide interstate commission with the scope and authority to fully assess and address water quality and quantity issues.

Given the extent of this vulnerability, it is essential Pennsylvania capitalizes on cost-effective solutions that mitigate exposure to pollution and preserve the integrity of our waterways. Green stormwater infrastructure – a system of vegetation, soils, and other features – can restore the natural processes required to allow water to slowly permeate the ground. Incorporating stream buffers, a practice of green infrastructure, along a waterway protects it from the impacts of adjacent land use. Serving as a transition from land to water, the array of trees, shrubs, and grass that make up a buffer intercept sediments and nutrients before they reach the waterbody. For example, stream buffers along the Santo Domingo Creek in Lancaster County reduced stormwater peak flows and eliminated streambank erosion, both of which carried tons of sediment and nutrients.¹² Compared to traditional infrastructure approaches – such as pipelines, reservoirs, and levees – green infrastructure proves to be a more cost-effective solution to address water quality issues. Using green infrastructure to meet water quality goals in the city of Lancaster reduced the capital costs of traditional infrastructure by \$120 million.¹³

Providing every resident with access to clean water remains one of the Commonwealth’s most important responsibilities. Collectively, we must aspire towards a vision for our great waters that champions the right to safe drinking water and assures that waterways are used safely for swimming, fishing, and boating. Getting there will require bold leadership.

Pennsylvania’s next governor should develop and implement a comprehensive approach to protect drinking water supplies from source to tap.

POLICY SOLUTIONS

- Direct the Department of Environmental Protection to develop and implement Pennsylvania’s first statewide Drinking Water Quality Plan, which would identify the measures needed to improve our water quality from source to tap.
- Expand protections for Pennsylvania’s waters by instructing the Department of Environmental Protection to update the designated uses for the Commonwealth’s streams to meet the requirements of the Clean Water Act.¹⁴
- Propose a legislative package to address lead in drinking water that includes the establishment of dedicated state funds for lead service line replacement.
- Direct the Public Utility Commission to instruct the state’s water utility companies to inventory lead service lines in their systems and develop a long-term plan for their replacement.
- Advance new stream buffer initiatives and requirements to protect healthy watersheds and restore watersheds that fail to meet state water quality standards.
- Instruct the Department of Environmental Protection to use a “green infrastructure first” approach in water systems that experience sewer overflow and in managing other stormwater problems.
- Identify appropriate funding to meet watershed restoration goals.
- Rebuild the Department of Conservation and Natural Resources’ Rivers Conservation Program.
- Direct the Department of Environmental Protection to outline a specific plan for meeting the restoration goals of the Chesapeake Bay that is supported by appropriate funding.
- Meet with the governors of New York, New Jersey and Delaware to develop new means of restoring and protecting the Delaware River.

¹² L. Donald Duke, Yung-Hsin Sun, Mark Gutshall, and Lindsey Freidly, *Proactive Flood and Drought Management, Volume II: A Selection of Applied Strategies and Lessons Learned From Around the United States*, (Middleburg, VA: American Water Resources Association, 2016), <https://drive.google.com/file/d/0B4Y3VQLxjkkxOYWN0RnFWVVMzZoU/view>.

¹³ U.S. Environmental Protection Agency, *The Economic Benefits of Green Infrastructure: A Case Study of Lancaster PA*, February 2014, https://www.epa.gov/sites/production/files/2015-10/documents/cnt-lancaster-report-508_1.pdf.

¹⁴ U.S. Environmental Protection Agency, *Analysis of the Surface Drinking Water Provided By Intermittent, Ephemeral, and Headwater Streams in the U.S.*, July 2009, https://www.epa.gov/sites/production/files/2015-04/documents/2009_12_28_wetlands_science_surface_drinking_water_surface_drinking_water_results_state.pdf.

Provide the Department of Environmental Protection and Department of Conservation and Natural Resources with the Needed Resources to Fulfill Their Mission

Harrisburg has spent years cutting back environmental spending in order to balance the state budget. Between fiscal years (FY) 2002-2003 and 2015-2016, the Department of Environmental Protection saw a 40 percent budget reduction, dropping from a high of \$245.6 million to \$142.6 million.¹⁵ As a result, the department retired more than 700 positions, even as it confronted immense new threats and responsibilities from the Marcellus Shale gas boom. The next governor must strive to give the Department of Environmental Protection the resources it needs to fulfill its mission and to ensure that future generations have access to clean air and water—a bedrock of our state’s economic success.

Likewise, significant cuts to the Department of Conservation and Natural Resources’ budget have stymied stewardship of our state’s parks and forests. Long-term underinvestment in parks and forests has resulted in an unprecedented tally of needed investments—from bridges to water treatment facilities, from dams to invasive plant removal, and from roads to trails. The running total of infrastructure needs for both parks and forests is estimated at \$1 billion.¹⁶

The more than 40 million annual visitors to Pennsylvania’s state parks and forests generate more than \$4 billion a year for the state’s economy, mainly through hotel accommodations, dinners, souvenirs, and other amenities. These expenditures generate business and job creation, which, in turn, provide tax revenue to the general fund.



Research regularly demonstrates that our public lands are well loved and much appreciated by Pennsylvania residents, providing generations with fond memories, improved health, and opportunities for relaxation. However, with that use comes significant wear and tear to the built and natural infrastructure, requiring maintenance and upgrades to keep our parks and forests safe and attractive. Changing public safety regulations also create a need for infrastructure investments.

The Commonwealth needs an effective and appropriately-funded Department of Environmental Protection and Department of Conservation and Natural Resources. Both agencies must receive adequate funding and staffing to perform their operations and enforce environmental regulations. Pennsylvania’s next governor should seek investments in the processes and projects that will help the Commonwealth realize this goal.

POLICY SOLUTIONS

- Announce a five-year plan to restore the Department of Environmental Protection’s general fund budget to at least FY 2002-2003 levels. Invest at least an additional \$30 million in the plan’s first year to improve inspection and enforcement, permitting performance, and upgrade technology infrastructure.
- Develop a five-year plan to restore general fund allocations and staffing to the Department of Conservation and Natural Resources to continue managing these public assets in an exemplary fashion.
- Establish a multi-year plan to address the infrastructure needs in our state parks and forests to ensure safety, accessibility, and enjoyability.

¹⁵ “Letter to Senate Appropriations Committee,” Pennsylvania Environmental Council & Chesapeake Bay Foundation, last modified February 24, 2016, <https://drive.google.com/file/d/0B4Y3VQLxjxOaC1mcnBHVDIkMFU/view>.

¹⁶ This total includes \$300 million in funds needed for abandoned mine drainage remediation.

Improve the Department of Environmental Protection's Ability to Protect the Public from the Impacts Posed by Natural Gas and Petrochemical Infrastructure

The rapid expansion of natural gas extraction and the development of petrochemical infrastructure in Pennsylvania has strained the ability of communities and state government to assess and respond to the associated health and safety impacts. Research has found a correlation between proximity to gas facilities and the prevalence of health symptoms, such as asthma, cancer, and high blood pressure, as well as other heart, kidney, pulmonary, and thyroid conditions.¹⁷ Assuring the state's ability to oversee natural gas and petrochemical industries should be a top priority for our next governor.

Core to the mission of the Department of Environmental Protection is the protection of public health and environmental quality. It must ensure the potential economic gains from natural gas development do not come at the cost of Pennsylvanians' well-being. Recent revelations have undermined public trust in the department's current pipeline policy; it remains unclear if the policy can truly safeguard against the major threats posed by this infrastructure. In a 2016 report, the Pennsylvania Pipeline Infrastructure Task Force acknowledged that pipeline permits are not reviewed for cumulative or long-term impacts.¹⁸ Preserving the integrity of our health and environment requires a vigilant and thorough application of regulatory authority and a commitment of resources to identify, characterize, and prevent potential adverse impacts. Our health and well-being demand that the Department of Environmental Protection exercises its full authority and gives full scrutiny to all natural gas infrastructure projects, especially as the agency responds to new challenges caused by growth in natural gas production and the emergence of the petrochemical industry.

Among the most significant of the challenges brought on by the natural gas boom are increased emissions of methane, a primary component of natural gas. Data shows that methane emissions from unconventional extraction technologies like directional drilling and hydraulic fracturing had methane emission rates 23 times greater than conventional natural gas production sites.¹⁹ Methane has been identified by the U.S. Environmental Protection Agency as the second-most prevalent greenhouse gas emitted in the United States from human activities. Reducing methane leaks from the oil and gas sector is



an essential step to reducing global greenhouse gas emissions and protecting public health and safety. Pennsylvania's next governor should improve the Department of Environmental Protection's ability to protect the public from threats posed by natural gas and petrochemical infrastructure.

POLICY SOLUTIONS

- Issue methane rules that require significant emission reductions from both new and existing oil and gas sources.
- Maintain the ban on new leasing of state parks and forests for oil and gas extraction.
- Ask the Office of the Auditor General to conduct an audit of pipeline permitting and enforcement processes carried out by the Department of Environmental Protection.
- Implement Recommendation #67 from the Environmental Protection Workgroup of the Pipeline Infrastructure Task Force Order, which calls for an evaluation of the cumulative impacts of pipeline infrastructure projects, including how the related infrastructure affects current and foreseeable future changes to the environment.²⁰
- Initiate an evaluation of potential alternative measures and approaches designed to minimize the need for additional pipeline infrastructure, while safely and efficiently meeting Pennsylvania's energy requirements.

¹⁷ N. Steinzor, W. Subra, and L. Sumi, "Investigating links between shale gas development and health impacts through a community survey project in Pennsylvania," *New Solutions: A Journal Of Environmental And Occupational Health Policy* 23, no. 1 (2013): 55-83.

¹⁸ "Pennsylvania Pipeline Infrastructure Task Force," Pennsylvania Department of Environmental Protection, accessed April 2, 2018, <http://www.dep.pa.gov/BUSINESS/PROGRAMINTEGRATION/PIPELINETASKFORCE/Pages/default.aspx>.

¹⁹ Mark Omara, Melissa R. Sullivan, Xiang Li, R. Subramanian, Allen L. Robinson, and Albert A. Presto, "Methane Emissions from Conventional and Unconventional Natural Gas Production Sites in the Marcellus Shale Basin," *Environmental Science @ Technology* 50, no. 4 (2016): 2099-2107, <https://doi.org/10.1021/acs.est.5b05503>.

²⁰ Pipeline Infrastructure Task Force of the Pennsylvania Department Environmental Protection, *Governor's Pipeline Infrastructure Task Force Report*, February 2016, <http://files.dep.state.pa.us/ProgramIntegration/PITF/PITF%20Report%20Final.pdf>.

Ensure Environmental Justice for Vulnerable Communities

Pennsylvania's poorest residents are often the ones who live next to polluting industrial facilities, such as power plants, factories, transportation hubs, gas wells, and other sources of pollution. These inequities are compounded by the fact that many of these residents cannot afford to move. The next governor must pursue strong action to improve conditions for residents of vulnerable communities; these residents routinely face income-based and race-based disparities related to industrial pollution and other adverse environmental impacts. In 2015, the Department of Environmental Protection identified 851 environmental justice communities, defined as communities in which at least 20 percent of residents live in poverty and/or at least 30 percent of people are ethnic minorities.²¹ These communities struggle with poor air quality, polluted drinking water, elevated risk for lead poisoning, and chronic exposure to toxic chemicals.



Photograph by Christopher Moraff. Used with permission.

Contributing to these disparate outcomes is a current lack of coordination between state agencies. Piecemeal reform efforts have been inadequate at providing the agile, integrated solutions that meet the complex needs of vulnerable communities. In essence, environmental justice underscores that ecological, public health, economic, and social concerns are interrelated and multi-layered. They span agency jurisdictions and areas of expertise. As a result, issues often involve many stakeholders who possess contradictory perspectives about the best ways to approach a solution. This difference of opinion gives rise to inefficiencies that undermine the state's ability to help those who need it most.

Better interagency coordination could significantly boost the state's ability to improve the health and sustainability of vulnerable communities. A collaborative model to comprehensively and proactively address environmental justice issues has

been effective in the federal government. Through the Federal Interagency Working Group on Environmental Justice, representatives from federal agencies, White House offices, and other interested stakeholders work across portfolio boundaries to achieve an integrated response to identifying and addressing the adverse health and environmental impacts its programs, policies, and activities have on minority and low-income populations.²² The interagency working group has made a visible difference in communities by leveraging federal government resources.²³ For example, funding from three sources – the U.S. Environmental Protection Agency's Environmental Justice Small Grant and Urban Waters Grant, and the Department of Interior's Fish and Wildlife Service's Urban Refuge Partnership Grant – supported the nation's first Strategic Environmental Justice Plan for a public land site at Valle de Oro National Wildlife Refuge.²⁴

Ensuring environmental justice for vulnerable communities requires a united effort. Pennsylvania's next governor should integrate the principles of environmental justice across the state government.

POLICY SOLUTIONS

- Issue an executive order requiring the Department of Environmental Protection to consider environmental justice issues in all of its permitting and policy decisions.
- Establish an interagency working group with a focus on environmental justice; this group should promote integrated solutions for vulnerable communities through collaboration across traditional boundaries.
- Appoint environmental justice liaisons in all applicable agencies, including the Department of Health, the Department of Community and Economic Development, the Department of Conservation and Natural Resources, the Department of Transportation, and the Department of Education, to provide relevant training, connect with communities, and improve the alignment of state investments.
- Analyze each state grant program, to the extent that it is relevant, to determine how these programs are contributing to (or detracting from) environmental justice, and make recommendations, if necessary, to ensure those principals are emphasized and served.

²¹ Don Hopey, "State, Allegheny County differ when it comes to identifying areas that need help with environmental impacts," *Pittsburgh Post-Gazette*, November 24, 2017, <http://www.post-gazette.com/news/environment/2017/11/24/Allegheny-County-Environmental-Justice-index/stories/201711230012>.

²² "Federal Interagency Working Group on Environmental Justice (EJ IWG)," U.S. Environmental Protection Agency, accessed April 2, 2018, <https://www.epa.gov/environmentaljustice/federal-interagency-working-group-environmental-justice-ej-iwg>.

²³ U.S. Environmental Protection Agency, "Federal Interagency Working Group on Environmental Justice (EJ IWG)."

²⁴ "Federal Interagency Working Group on Environmental Justice," U.S. Environmental Protection Agency, accessed April 2, 2018, https://www.epa.gov/sites/production/files/2017-04/documents/factsheet_for_the_federal_interagency_working_group_on_environmental_justice_o.pdf.

Boost Current Investments in *Growing Greener*



Growing Greener funding helps communities across the Commonwealth protect, conserve, and restore the natural resources that underpin the health, safety, and economic well-being of Pennsylvanians. The hundreds of millions of dollars of Growing Greener investments to date have strengthened our state's economy while improving the lives of Pennsylvanians by addressing serious environmental concerns that could not be resolved through regulation alone.²⁵

The Commonwealth's history of pioneering industrialization and resource extraction has left scars. Once totaling almost 190,000 acres in 44 counties, Pennsylvania possessed the most acreage of abandoned coal mines of any state, a legacy that has left more than 5,000 miles of streams polluted from abandoned mine drainage.²⁶ These scars increasingly threaten our drinking water sources, aquatic species, and outdoor recreational opportunities.

Furthermore, the declining availability of open space, parks, farmland, wildlife habitat, and clean rivers and streams has cast doubt on the viability of two industries critical to the state's economy – agriculture and tourism. Absent substantial efforts to protect local farmland from non-agricultural development jeopardize agribusiness' \$61 billion contribution to Pennsylvania's overall economy. Almost equally essential to the state's economic well-being is the upkeep of outdoor infrastructure. Significant portions of the Commonwealth's community and state parks are in a serious state of disrepair, putting at risk a \$29.1 billion outdoor recreation industry that

employs in excess of 251,000 Pennsylvanians – more than three times as many jobs as the natural gas industry.²⁷

All across the Commonwealth, Growing Greener investments have inspired major strides in healing the wounds of our industrial legacy, while laying the groundwork for future economic prosperity. Growing Greener has restored more than 1,600 acres of abandoned mines and improved the health and stability of miles of damaged waterways. It has protected more than 33,700 acres of family farmland and conserved more than 42,300 acres of threatened open space.²⁸ It has refurbished our award-winning state parks and forests, our county and local parks, trails, and other public lands. And, the greening of communities has improved the air we breathe.

Despite these considerable accomplishments, there remains a substantial unmet need. The Commonwealth's needs require a new commitment of \$315 million per year to address the vast backlog of projects across the state. 19,000 miles of streams and rivers are not safe for drinking, recreation, aquatic life, agriculture, or industrial use. 43 counties still contend with 189,000 acres of abandoned mine land.²⁹ And 1,500 farms are awaiting preservation in addition to the thousands of parcels needed for the provision of public parks, trails, and other public open spaces that are vital to healthy communities. Pennsylvania's next governor should take strong steps to expand and facilitate investments in Growing Greener projects.

POLICY SOLUTIONS

- Oppose any effort, including the veto of any budget, that diverts money from existing dedicated funds (e.g., Environmental Stewardship Fund and Keystone, Recreation, Park, and Conservation Fund).
- Commit to greatly boosting Growing Greener's investment levels.
- Lead efforts to create a statewide working forest conservation easement program to reward landowners who protect and manage their forests for water quality, climate mitigation, wildlife habitat, and sustainable timber production.

²⁵ PA House of Representatives Appropriations Committee (Democratic Members), *Growing Greener: Primer*, December 2016, http://www.pahouse.com/Files/Documents/Appropriations/series/2928/Growing_Greener_BP_121416.pdf.

²⁶ "Growing Greener Environmental Stewardship Fund," PA Growing Greener Coalition, accessed April 2, 2018, <https://pagrowinggreener.org/issues/growing-greener/>.

²⁷ Outdoor Industry Association, *Pennsylvania Outdoor Recreation Economy Report*, July 26, 2017, <https://outdoorindustry.org/resource/pennsylvania-outdoor-recreation-economy-report/>.

²⁸ PA Growing Greener Coalition, "Growing Greener Environmental Stewardship Fund".

²⁹ "Growing Greener Bill Introduced," PA Growing Greener Coalition, last modified May 24, 2017, <https://pagrowinggreener.org/2538-2/>.

Bolster the Commonwealth's Clean Energy Sector

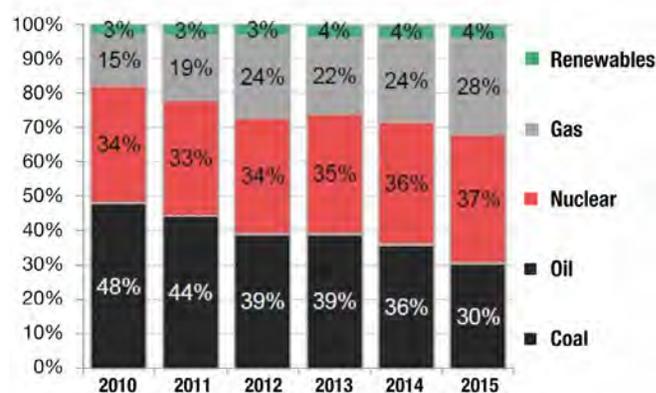
Pennsylvania sits on an untapped market of \$9 billion in economically viable clean energy and energy efficiency projects.³⁰ Strengthening the Commonwealth's clean energy business climate through executive action and policy improvements will make the state more attractive for billions of dollars in private clean energy investment. The next governor should exercise leadership in breaking down financing, market, and policy barriers to the growth of Pennsylvania's clean energy sector.

Attracting greater clean energy investment to Pennsylvania will require the Commonwealth to solve numerous financing challenges that currently hinder the state's clean energy industry. Needless complexity, underinvestment, and poor design complicate many of the existing clean energy government loan and grant programs. For example, financing products lack funding timelines that match the market or the life cycle of clean energy technologies, resulting in low demand for loans and grants. Further impeding demand are poor marketing efforts and the limited availability of private-funded, market-oriented financial programs for clean energy, aside from PennSEF and KeystoneHELP.

Pennsylvania is also falling behind on clean energy policy. *Finding Pennsylvania's Solar Future*, a statewide planning project to enable Pennsylvania to produce more solar energy by 2030, has identified the Commonwealth's Alternative Energy Portfolio Standard (AEPS) Act of 2004 as one of the significant barriers limiting the widespread deployment of solar energy systems. The AEPS requires electric utilities in Pennsylvania to supply 18 percent of their electricity using alternative-energy resources by 2020. Since Pennsylvania's solar energy generation requirement, only 0.5 percent, is significantly less than surrounding states, revising the AEPS and igniting solar development in the Commonwealth offers one key mechanism for bolstering the clean energy sector.³¹

Another key mechanism to fuel the clean energy sector is through an expansion of Pennsylvania Act 129. Act 129, which established the Energy Efficiency Standard, aims to reduce energy consumption through an expansion of the Public Utility Commission's oversight responsibilities, in addition to

PENNSYLVANIA ELECTRICITY FUEL MIX 2010-2015



As reported in the 2017 *Pennsylvania Clean Energy Market Report*, prepared by the Coalition for Green Capital on behalf of The Nature Conservancy.

imposing requirements on electric distribution companies to develop energy efficiency and conservation plans. Over the first seven years, the program delivered \$6.4 billion in benefits to Pennsylvania electric customers.³² Aside from this tremendous cost savings to ratepayers, the federal Department of Energy recently reported that energy efficiency supports 62,431 jobs in Pennsylvania.³³ But, despite this success, the effects to date have been limited. Almost 95 percent of residents heat their homes with natural gas, fuel oil, or propane, which are not presently covered by the legislation.

And through investments in green building infrastructure and energy efficiency certifications for publicly funded facilities, the Commonwealth can lure private capital to the emerging sector of building science and technology. Research finds that green public building commitments produce a near doubling effect in private investment across the building sector and up and down the supply chain of products, professionals, and services. Further evidence suggests this new investment could have profound implications for economic growth and job creation. In 2015, green construction added nearly 800,000 jobs to the U.S. economy and \$53 billion in wages.³⁴ Furthermore, these investments will dramatically reduce energy consumption.

³⁰ Coalition for Green Capital and The Nature Conservancy, *Pennsylvania Clean Energy Market Report*, February 28, 2017, <https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/pennsylvania/pa-clean-energy-market-report-1.pdf>.

³¹ "Pennsylvania Alternative Energy Credit Program," Pennsylvania Public Utility Commission, accessed April 2, 2018, <https://www.pennaeps.com/aboutaeps/>.

³² "Act 129," Keystone Energy Efficiency Alliance, accessed April 2, 2018, <https://keealliance.org/act-129/>.

³³ U.S. Department of Energy, *U.S. Energy and Employment Report*, January 2017, https://www.energy.gov/sites/prod/files/2017/01/f34/2017%20US%20Energy%20and%20Jobs%20Report_o.pdf.

³⁴ U.S. Green Building Council and Booz Allen Hamilton, *Green Building Economic Impact Study*, September 2015, <http://go.usgbc.org/2015-Green-Building-Economic-Impact-Study.html>.

Buildings account for approximately 41 percent of energy use in the U.S., as compared to 30 percent from the industrial sector, and 29 percent in transportation.³⁵

Despite the broad range of available options, achieving such solutions has been complicated by a shortage of specialized experts within the administration and economic development agencies, as well as a lack of access to external expertise on how to best employ new and developing technologies to benefit the Commonwealth. Contrast this with the oil and gas sector in Pennsylvania, which has benefited from key appointments of experienced individuals within the governor’s office, the Department of Community and Economic Development, the Department of Environmental Protection, and the Public Utility Commission, as well as two different advisory committees within the Department of Environmental Protection.

Pennsylvania’s next governor should pursue action that bolsters the Commonwealth’s clean energy sector.

POLICY SOLUTIONS

- Appoint a senior advisor with experience in the clean energy sector who will not only counsel the governor but also work with agencies under the governor’s jurisdiction to ensure policies do not limit the growth potential of clean energy industries.
- Supplement the clean energy appointee with an advisory board including representatives from the energy efficiency, solar, wind, electric vehicle, and other clean energy sectors.
- Support the creation of a dedicated entity charged with overcoming market constraints to clean energy, such as building and marketing needed loan products, aggregating projects to better attract private capital, and providing consumer information and guidance.
- Sign an Executive Order that requires high-performance green building standards for major construction or reconstruction projects involving buildings owned or significantly leased by the Commonwealth of Pennsylvania.
- Propose the expansion of Act 129 to smaller electric distributors as well as natural gas providers to drive more gains in the energy efficiency sector.
- Champion an increase in the state’s solar energy generation requirement to 10 percent by 2030, as part of a bill designed to strengthen Pennsylvania’s Alternative Energy Portfolio Standard.
- Put forward recommendations to build on the work of the *Solar Future Project*, which will increase the amount of Pennsylvania electricity sales that come from in-state solar energy generation by 10 percent.



³⁵ U.S. Green Building Council and Booz Allen Hamilton, *Green Building Economic Impact Study*.

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Coalition Partners

The following organizations are members of the coalition that developed the *Pennsylvania Common Conservation Agenda* and the *Green in '18* campaign:



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