



## ***Restore Pennsylvania: Green Infrastructure***

Pennsylvanians have long recognized the need for investments to protect open space, address state park maintenance needs, preserve and environmentally enhance working farms, clean up abandoned mines, restore watersheds, fund recreational trails and local parks, help communities address land use, and provide new and upgraded water and sewer systems. These projects help create prosperous and sustainable communities, protect the environment, add quality of life value that attracts jobs, contribute to Pennsylvania's outdoor recreation and tourism industries, and improve public health.

The outdoor recreation provided by our state's network of parks, trails, greenways, riverfronts and other open spaces are increasingly cited as an important factor for residents when deciding where to live and work, creating a major incentive to invest in creating these opportunities as a strategy to attract and retain the workforce that will power Pennsylvania's economy tomorrow.

Green infrastructure also includes natural features that provide many benefits, often at a lower cost than "built" infrastructure: trees in cities create shade and cool; forests and wetlands absorb floodwaters and storm water and filter water and air; shrubs and trees along streams trap pollutants; and ponds, woods and meadows provide habitat for Pennsylvania's many iconic wildlife species.

Restore Pennsylvania will provide significant new funding to enable new environmental and conservation projects and new recreational opportunities across the state, including infrastructure and maintenance in state parks, creation and revitalization of new local parks, funding for new hiking, biking and ATV trail projects, and restoring soil health and water quality through the installation of conservation best management practices.

### ***Infrastructure Challenge Being Addressed***

Over 19,000 miles of streams and rivers do not meet federal and state water quality standards. Nearly 200,000 acres of abandoned mine land remain across 43 Pennsylvania counties. Over 200,000 orphaned and abandoned wells pollute our landscape. Our state parks and state forests have a significant backlog of needed infrastructure work to fix deteriorating buildings, water and sewer treatment systems and trails and roads.

Pennsylvania's Chesapeake Bay Phase 3 Watershed Implementation Plan planning process documented significant conservation infrastructure needs on nearly 33,000 farms and forestry lands in the Chesapeake Bay Watershed area in Pennsylvania. Annual funding for these soil health and water quality infrastructure needs exceeds \$250 million in the Chesapeake Bay Watershed alone.

According to the latest USDA Census of Agriculture, Pennsylvania experienced a loss of 500,000 acres of farmland between 2012 and 2017. That loss of farmland is nearly equal to the amount of farmland that has been preserved to date, and more than 2,000 working farms remain on county waiting lists to be preserved. While Pennsylvania leads the nation in farmland preservation, funding restrictions and administrative capacity limit the number of farms that can be preserved each year.

There are more than 6,000 municipal and county parks critical to community character and recreation, some built more than a century ago, also in need of upgrades and repairs. Forests cover 59% of

Pennsylvania, but 75% of these forests are privately owned, and could be subdivided or developed. Trail use for biking, hiking, walking and motorized recreation is soaring in popularity, but key gaps in connecting segments of statewide and regional trails can involve difficult engineering challenges and are expensive. Additionally, infrastructure upgrades and capital improvements are needed to facilities serving Pennsylvania's anglers and boaters.

#### Description of Proposed Funding Usage

Restore Pennsylvania funding for green infrastructure will be modeled after existing Growing Greener project categories. Funds may be used as follows:

*(A) By the Department of Environmental Protection for its existing programs for watershed protection, mine and acid mine drainage remediation, and plugging of abandoned oil and gas wells.*

Restore Pennsylvania will provide grants to support local projects to clean up non-point sources of pollution throughout Pennsylvania by assisting counties, authorities and other municipalities, county conservation districts, and watershed organizations in their efforts to restore and protect Pennsylvania's environment.

*Watershed Protection:* Pennsylvania is a water rich state with approximately 85,000 miles of streams and rivers connecting over 700,000 acres of lakes, bays, and wetlands. Protection of these waters and the groundwater below is a challenging, but vital mission. There are currently over 19,000 miles of stream listed as impaired, requiring the development of a Total Maximum Daily Load (TMDL), establishing the maximum amount of a pollutant allowed to enter a waterbody.

Restore Pennsylvania will provide grants for watershed protection, helping with watershed assessments and development of watershed restoration or protection plans; and implementation of watershed restoration or protection projects such as stormwater management wetlands, riparian buffer fencing and planting, streambank restoration, and agricultural best management practices.

*Mine and Acid Mine Drainage Remediation:* For the first 200 years of Pennsylvania's history, coal was mined with little thought of environmental consequences and without regulation. When all available coal was extracted from a mine site, operators would move to another area and leave the original mine abandoned, failing to return the earth to its previous condition. Over 15 billion tons of coal were removed from Pennsylvania's ground and 250,000 acres of mine lands were left abandoned. The state's waterways are polluted from mine drainage, and many people have died or suffered from injuries and property damaged from unsafe and unstable abandoned mine lands (AML). Pennsylvania has documented an inventory of AML sites with Priority 1 and Priority 2 health and safety hazards. The estimated cost to reclaim these high priority sites exceeds \$1 billion.

Restore Pennsylvania will provide grants to remediate health and safety hazards and reclaim AML, and abate or treat abandoned mine drainage to improve water quality.

*Plugging Abandoned Oil and Gas Wells:* It is estimated that hundreds of thousands of oil and gas wells have been drilled in Pennsylvania since 1859. Although operators are responsible for plugging wells when oil and gas production is no longer economic, there remain thousands of wells in the state that have no identifiable responsible party to complete this work. A significant number of these wells were drilled prior to modern well permitting and plugging requirements, and DEP

estimates that as many as 200,000 remained unaccounted for. Many times, these abandoned wells pose threats to health and safety of Pennsylvanians and the environment. Because of the very limited funding, plugging all of the abandoned wells in the Commonwealth will take over 1,000 years. As these wells continue to age, their structures will decay and become jeopardized, making them significantly more difficult and expensive to plug.

Restore Pennsylvania will provide funding for plugging the wells with the greatest safety and environmental risks.

*(B) By the Department of Conservation and Natural Resources for its existing programs for the improvement of state parks and forests, watershed restoration and open space preservation, and provide community park and recreation grants.*

*Improvement of State Parks and Forests:* Restore Pennsylvania will provide additional funding to address needed repairs and upgrades in state parks and forests, ensuring that our infrastructure is safe, up-to-date, and well maintained. DCNR manages a system of 121 state parks and 2.2 million forest acres in its state forest system. These lands provide residents and visitors with a wide range of recreational opportunities; support forest-industry jobs and community businesses; and conserve the best natural systems in the state for current and future generations. Our state parks get more than 40 million visits each year. State parks and forests need \$1 billion in infrastructure upgrades to ensure public safety and the proper functioning of equipment. DCNR also maintains 130 dams, including 42 high hazard and 32 considered structurally deficient.

*Community Park and Recreation Grants:* Pennsylvania's 6,000 local parks face a similar challenge and need for upgraded infrastructure. Restore Pennsylvania will provide funding to modernize recreational opportunities, updating aging infrastructure with a focus on developing sustainable systems and working toward the goal of having a clean, safe, and ready to use park within 10 minutes of every Pennsylvanian.

DCNR has identified many gaps in statewide and regional hiking, biking, walking and other trails increasingly popular among recreators here at home and with visitors. Many of these involve difficult engineering projects to link major trail segments across impediments like highways, railroad bridges, rivers, and other challenges. DCNR's Recreational Trails Program turns away more than half of the grant applicants it receives due to a lack of available funding.

*Watershed Restoration:* Streams are important for drinking water, recreation, and wildlife, and forested streamside buffers are a relatively low-cost way to reduce the amount of polluted runoff and nutrients running into streams. The recently completed draft Chesapeake Bay Phase 3 Watershed Implementation Plan identifies planting 83,000 new acres of forested riparian buffers to help the state meet federal Chesapeake Bay requirements by 2025. Funding through Restore Pennsylvania will enable DCNR working closely with community and conservation partners to advance this goal and improve water quality in Pennsylvania streams and rivers.

DCNR also promotes urban tree cover to offer cooling and shading to cities and reduce stormwater through its popular TreeVitalize Program. Since it was launched in 2004, TreeVitalize has added more than 400,000 trees to dozens of urban and suburban communities across the state. Restore Pennsylvania will maintain and expand this popular program, which currently has no sustainable funding source.

*Open Space Preservation:* A study on sprawl development by The Nature Conservancy and partners several years ago identified a conservation gap in PA where three acres of land are developed for every acre conserved. Pennsylvania has no state-level dedicated funding source for forestland conservation. Other important greenway, trail and rare-ecosystem lands also lack enough funding to meet current demand.

Restore Pennsylvania funding will conserve these lands through acquisition or conservation easements, helping ensure access to raw materials for the forest products industry, improved community recreational assets, and protection of clean air and water for all citizens.

*(C) By the Department of Agriculture for its existing county-based farmland preservation programs, and for transfer to the State Conservation Commission to provide financial and technical assistance grants for the implementation of best management practices on farms within the commonwealth.*

*Farmland Preservation:* Since Pennsylvania's nation-leading farmland preservation program began in 1988, federal, state, county, and local governments have purchased permanent easements on 5,494 farms totaling 566,305 acres in 59 counties for agricultural production. The Pennsylvania Agricultural Conservation Easement Purchase Program, as it is formally known, is dedicated to slowing the loss of prime farmland to non-agricultural uses.

Restore Pennsylvania will add to current funding levels, securing the purchase of development rights to preserve farms waiting on the county backlog lists. Roughly 1,500 eligible farms remain on these lists statewide waiting to be preserved, at an estimated cost of \$500 million.

*Conservation Assistance:* The State Conservation Commission, a departmental administrative commission under the concurrent authority of the Department of Environmental Protection and the Department of Agriculture, provides support and oversight to the state's 66 county conservation districts for the implementation of conservation programs. Conservation districts are a trusted resource for the agriculture community to provide financial and technical assistance to farmers and landowners. In EPA's memo outlining its expectations for Pennsylvania to address its TMDL, an agriculture cost-share program was recommended to be funded at \$80 million minimum.

Restore Pennsylvania will provide funding for the State Conservation Commission to administer an agricultural conservation grant program that will provide financial and technical assistance for conservation districts to help farmers install and implement best management practices. The grant program will competitively fund projects that yield significant nutrient reductions using high-quality best management practices in high-priority areas of the commonwealth, as determined in partnership with DEP.

*(D) By the Department of Community and Economic Development for main street and downtown redevelopment related to smart growth.*

The Department of Community and Economic Development's Keystone Communities Program is designed to support communities with revitalization activities in downtowns, neighborhoods, and deteriorating, distressed, and blighted industrial and manufacturing areas.

The program also encourages the creation of partnerships between the public and private sectors that jointly support local initiatives such as the growth and stability of neighborhoods and communities. The program allows communities to tailor assistance to meet the needs of its specific revitalization effort.

Restore Pennsylvania will help create attractive, livable communities by revitalizing downtowns and surrounding neighborhoods and promoting sound land use practices. These efforts improve the quality of life and economic competitiveness of communities.

*(E) By the Pennsylvania Fish and Boat Commission for capital improvement projects to its existing lands and facilities.*

The Pennsylvania Fish and Boat Commission's (PFBC) mission is to protect, conserve, and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities. In fulfilling this mission, the PFBC is responsible for operating and maintaining 14 state fish hatcheries, 53 lakes and dams, and 270 public use and boat launch facilities throughout Pennsylvania. PFBC estimates that 15 hazardous dams need maintenance and repairs, and 163 of its 270 public use and boat launch facilities need significant upgrades.

Restore Pennsylvania will provide funding for the PFBC to invest in these critical infrastructure projects, not only improving public safety, but also bolstering the economic impact of recreational fishing and boating in Pennsylvania, which recent studies have estimated to be \$4 billion annually.

*(F) By the Pennsylvania Game Commission for capital improvement projects to its existing lands and facilities.*

The Pennsylvania Game Commission's mission is to manage Pennsylvania's wild birds, wild mammals, and their habitats for current and future generations. They manage 480 species of wild birds and mammals, including 20 endangered species and 7 threatened species. The Game Commission also owns and manages almost 1.5 million acres of State Game Lands in more than 300 tracts in 65 of the 67 counties in Pennsylvania. This provides ample opportunity for wildlife-related recreation to every Pennsylvanian. In addition, tens of thousands of acres of habitat are created or maintained through active management on State Game Lands each year, benefiting a wide array of species.

Restore Pennsylvania will allow the Game Commission to continue to fulfill its mission and remain a national leader in wildlife management, providing funding for infrastructure upgrades at existing facilities, upgrades to its rifle ranges, and help with large building upgrades such as the Pymatuning Wildlife Learning Center.

*(G) By the Department of Transportation and the Department of Conservation and Natural Resources for the purpose of funding the development of new all-terrain vehicle trails, connectors, and feasibility studies.*

Demand for broader access to state and local rights-of-way to connect regional trail networks continues to increase. Restore Pennsylvania will provide a dedicated funding source for improvements to or potential expansions of all-terrain vehicle trails, such as the ATV connector loop in Clinton County, in a safe and cost-efficient manner.