



- ~ protect water ~
- ~ conserve land ~
- ~ improve communities ~

# GROWING GREENER III



To ensure that Pennsylvanians continue to have access to clean water, parks and trails, green open spaces, and locally grown food, Governor Wolf and the General Assembly must provide adequate funding for a Growing Greener III program by investing robust and adequate funding in vital conservation, recreation, preservation, and community revitalization projects. These investments support our state's economy and enhance the health of our communities and quality of

life for our residents.

Growing Greener III is needed to ensure that our communities can continue to address critical environmental priorities in three key areas; **Conserving Land and Water Resources, Restoring Damaged Waterways and Land, and Creating Prosperous and Sustainable Communities.**

## 1. Conserving Land and Water Resources

Pennsylvania's natural treasures - our mountains, forests, fields, farmland and rivers and streams – supports our economy, creates healthy communities, and provides recreation for our families. The viability of our two biggest industries - agriculture and tourism - depends on the availability of open space, parks, farmland, wildlife habitat, and clean rivers and streams.

We are facing significant challenges in our ability to meet our obligations to future generations. We are losing three times as much forest, wildlife habitat, farmland and other open spaces to development as we are able to conserve. Poorly planned and poorly managed development threatens our rivers and streams with uncontrolled stormwater, flooding and pollution.

## 2. Restoring Damaged Waterways and Land

Pennsylvania has a scarred history when it comes to natural resource extraction – whether it be oil, timber, or coal. The Commonwealth suffers from the most serious abandoned mine problem in the country, one that has left a legacy of contaminated water and land.

Approximately 26,000 miles of the Commonwealth's streams and rivers are so polluted they are listed on Pennsylvania's list of impaired waters. In addition, adequate resources must be provided to address abandoned mine and hazardous sites. Brownfields need to be cleaned and recycled to viable community assets and orphaned and abandoned wells need to be plugged.

## 3. Creating Prosperous and Sustainable Communities

Growing Greener III will provide needed funding for programs that green community downtowns and neighborhoods, enhance urban waterways and riverfronts, preserve historic structures and landscapes, and create parks, recreation areas, greenways and trails. Growing Greener III will assist Pennsylvania in positioning its older communities to take advantage of changing demographic and economic trends to improve the health and quality of life of its residents and visitors.

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## Conserving Land and Water Resources

- **Natural Lands Protection & Conservation**

Conservation in partnership with local communities and land trusts across the Commonwealth has proven to be a remarkably effective way to protect near-by green spaces and make our communities livable and economically competitive. This is why the demand for land conservation investments remains very high. Over the last twenty years, nearly \$680 million has been requested by local land trusts and communities. In the last year alone, \$34 million was requested through 63 applications. These grant awards leverage local investment and support for land conservation. For many land conservation projects, especially large ones, Growing Greener investment has leveraged two to three dollars for every grant dollar awarded.

DCNR Bureau of Forestry's list of priority land and water acquisitions alone includes twenty potential projects from twelve different counties, total 44,973 acres, with a total price of \$65,198,000. Many include lakes and streams as well as outstanding natural lands, and rank highly as strategic connectors between other protected parcels, or as augmentations to existing state forests. New Growing Greener funding will support acquisition and conservation of forest land to help prevent further fragmentation and parcelization, and, where appropriate, allow continued access for sustainable timber harvesting and wood products.

- **Preserving Productive Farmlands through Land Trusts**

Conservation goes hand in hand with preservation. With the nation's leading farmland preservation program, Pennsylvania gets this right. Month after month, farmers choose to enter into a covenant – to preserve and conserve their farmland – in perpetuity. This is the ultimate way to conserve natural resources and sustain Pennsylvania's great agricultural heritage for the next generation. The estimated cost of purchasing easements on 1,500 farms that remain on county backlog lists is \$458 million (based on average farm size and average easement purchase price across the state).

Private organizations often preserve farms on county backlog lists that otherwise may not be eligible for funding. Pennsylvania's land trusts facilitate transactions with landowners reluctant to participate with non-governmental entities. An annual investment would allow the Department of Agriculture to offer grants to land trust organizations for easement purchase.

- **Wild Resource Conservation Program**

Emerging issues and challenges facing our natural resources require continuous scientific research, conservation and education to advance our understanding, restore the network of green infrastructure critical to sustainability, and educate current and future leaders about the human connection with the natural world. *The Wild Resource Conservation Program* has supported these needs for over 25 years with grants to effectively research and conserve our non-game wildlife, native wild flora and their habitats, and to educate the public about the value of these natural resources.

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- **State Parks & Forests Improvements**

State parks and state forests cover 2.6 million acres of outstanding natural lands in Pennsylvania, a vast resource that requires ongoing maintenance and improvements. DCNR currently maintains 121 dams, over 824 bridges, 3,384 miles of roadway, 6,200 miles of trails, 6,537 campsites, 349 cabins, cottages, lodges and inns, 16 swimming pools, 4 ski areas, 4 marinas, and 2 golf courses, with a documented needs list of more than \$800M. DCNR will use new Growing Greener funding to address the most pressing infrastructure needs in the state forest and park system. In the process of these upgrades, DCNR will focus on greening its infrastructure to use less energy, lower costs to operate, and improve water quality. Engineers are designing sustainability into every aspect of the 121 state parks and 20 forest districts DCNR manages for the public. Saving energy, saving money, and showcasing responsible sustainable operations will be a hallmark of these GG3 funds.

- **Resource Enhancement and Protection Program (REAP)**

Through the Resource Enhancement and Protection (REAP) Program, farmers, landowner, and businesses earn tax credits for implementing "Best Management Practices" (BMPs) that will enhance farm production and protect natural resources. Tax credits only available for expenses directly paid for by the farmers, landowner, or businesses. Any funds received through local, state, federal, or private grants may not be eligible for tax credits.

- **Fish & Boat Access**

- Pennsylvania has over 900 public fishing and boating access areas that serve as anglers' and boaters' connections and gateways to the Commonwealth's water resources. Local fishing and boating clubs, municipalities, and other partners offer access to about 600 specific sites or stretches of water while the Pennsylvania Fish and Boat Commission (PFBC) manages nearly another 300 fishing and boating access sites. Many of these access points have suffered from years of deferred maintenance or have been closed due to public safety concerns. For every \$1 million of investment, up to twenty access areas can be improved or added. Strategic investments include upgrades to multiple access areas on an individual waterway, as part of dam rehabilitations, and/or at targeted access sites that, in many cases, offer the only local connection to the water for anglers, boaters, and emergency response personnel. PFBC grants to local partners have historically yielded \$1.40 in matching funds for each dollar of state or federal investment, more than doubling the number of projects that could be completed.
- The 56 Commonwealth-owned lakes managed by the PFBC provide excellent fishing and boating opportunities and are signature local and regional amenities. Since 2008, the PFBC has made or received commitments to address twenty-four dams at lakes that are classified as high-hazard, unsafe through a variety of funding sources, including Growing Greener 2; H2O PA; Act 89; the capital budget; and the general fund. The PFBC has prioritized an additional 11 high-hazard dams and four low-hazard dams with significant recreational value that require repairs before they deteriorate to the point of being unsafe. These facilities require maintenance and rehabilitation to bring them up to current dam safety standards and would benefit from targeted capital investments.

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When the lakes are drawn down for repairs, PFBC staff work collaboratively with local partners to install habitat enhancements and improve access to the facilities, resulting in improved fish and other aquatic life populations and better fishing opportunities while rectifying public safety concerns. Recent and ongoing examples of such comprehensive projects include Glade Run Lake (Butler County), Lake Nessmuk (Tioga County), Opossum Lake (Cumberland County), and Speedwell Forge Lake (Lancaster County).

- Pennsylvania's fourteen state fish hatcheries supplement naturally occurring fish populations with over fifty million warmwater fish like walleye, muskellunge, bass, catfish, and American shad; 3.2 million adult trout; one million steelhead smolts; and one million eggs and fingerlings raised and stocked by cooperative nurseries. These fish are stocked in waters open to public fishing and form the core of recreational opportunities across Pennsylvania, including streams and lakes in over 70 state parks. The PFBC has prioritized capital investments required to maintain fish production levels while meeting water quality standards and identified multiple opportunities to increase energy efficiency at the hatcheries, reducing long-term operational costs while minimizing the environmental footprint of the facilities. Additionally, an augmentation of grants and/or direct funding to 162 cooperative nurseries statewide could be matched with local contributions to help sustain this important public-private partnership.
- Fish habitat is the natural infrastructure at the heart of the Commonwealth's 86,000 miles of streams and rivers and nearly 4,000 lakes. The PFBC has identified prioritization criteria and specific watersheds in which to focus projects that will maximize ecological and recreational benefits of stream and lake habitat projects. An investment of \$1 million a year could result in targeted small dam removals, instream habitat, and riparian buffer work in specific watersheds that have public safety, local and downstream water quality, fish passage, climate change mitigation, and recreational benefits. The PFBC also completes fish habitat improvements in lakes open to public fishing to improve fish and other aquatic life populations and provide better fishing opportunities. Lake habitat projects are especially efficient and productive when integrated into regularly scheduled draw-downs and when lakes are drained to conduct dam repairs.
- **Wildlife Management**
  - Pennsylvania Game Commission will rehabilitate water control structures which currently exist on State Game lands. These efforts are focused on repairing/replacing structures to allow the agency to provide for quality wetland habitat to support waterfowl and other wetland wildlife and meet goals for water quality.
  - Access to State Game Lands is a key priority, especially for individuals with disabilities and older individuals who would like to enjoy our State Game Lands but require better access. The Game Commission will use new Growing Greener funding to create and improve road access, upgrade and replace gates to allow access for disabled individuals, and create new opportunities for individuals to better take advantage of our State Game Lands. These investments also include updating/contracting several buildings used in managing our State Game Lands, and construction of two wildlife conservation education centers, one in Pymatuning and another in State College.

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## Restoring Damaged Waterways and Land

- **Agricultural Conservation Excellence Program**

Conservation has everything to do with sustaining Pennsylvania's agricultural heritage for the next generation. When we have healthy, viable farms, we have healthy, viable watersheds. One does not exist without the other. The Department of Agriculture, in cooperation with the State Conservation Commission, is proposing a significant investment for the protection of our Commonwealth's soil, water and air resources. Under a new Pennsylvania Agricultural Conservation Excellence (ACE) Program, financial and technical assistance will be provided in partnership with county conservation districts and other partners for the protection of local water quality and improvement of our soil, water and air resources. The program will assist farm and land owners to install priority Best Management Practices (BMPs) to help improve the quality of their soil, water and air resources.

- **Reducing Non-Point Source Pollution**

Nonpoint source pollution occurs when contaminants enter waterways from water that has washed across the surface of the land. Unlike point source pollution, which can be traced back to a point discharge such as a pipe, nonpoint pollution sources are not easily pinpointed. Nonpoint pollution has many different sources, including air pollution and run-off from agriculture, construction, waste disposal, and abandoned mining sites. Nonpoint source pollution can greatly degrade water quality by introducing heavy metals, nutrients, sediments, and other harmful substances to waterways.

Investments in clean water pay huge dividends in terms of increased quality of life, increased recreational and economic opportunities associated with sport fisheries, and savings in drinking water treatment costs. Nearly 70% of Pennsylvania residents are served by a public water supply, with over 80% receiving treated drinking water from surface water sources. Pollution prevention of source water can drastically reduce drinking water treatment costs—an EPA study concludes that for every dollar spent on source water protection, \$27 is saved in treatment costs.

These funds, allocated to the Department of Environmental Protection, will be used to assist watershed groups, create stream buffers, and watershed restoration efforts that include addressing run-off from agriculture, construction, waste disposal, and abandoned mining sites.

- **Abandoned Mine Lands & Acid Mine Drainage Remediation**

Pennsylvania's legacy of coal mining drove the industrial revolution but also left the state with thousands of acres of abandoned mine lands. Acid mine drainage is one of the top two sources of pollution to our commonwealth's waterways. Pennsylvania has over 5,000 miles of AMD-polluted streams and more acreage of abandoned mine lands than any other state. These acres of hazardous, unproductive land create environmental harms like acid mine drainage. The price tag to clean up high priority AML and AMD sites across Pennsylvania has been estimated at as much as \$15 billion. New investments will lead to the reclamation of roughly 2,500 acres of mine lands.

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- **Protecting Rivers and Streams with Riparian Forest Buffers**

Streamside forests are the natural condition of Pennsylvania streams and are amongst the most cost-effective water quality tools we have. For nearly two decades, Pennsylvania has invested in restoring the forested stream buffers we've lost--preserving what we have is paramount in our efforts to protect Pennsylvania's best streams, restore water quality in degraded streams, and help meet the Chesapeake Bay Clean Water Blueprint goals.

- **Hazardous Sites & Brownfields Clean-up**

Abandoned industrial properties or brownfields produce environmental harms (like groundwater and soil contamination.) They also represent a drag on economic development within a community. Brownfields grants are made available for site characterization and remediated to eliminate environmental hazards. Increased investments can change the landscape of the Commonwealth. For example, a \$10 million investment could bring forty properties across the state back into productive use.

- **Addressing Pollution from Abandoned Oil and Gas Wells**

An abandoned, unplugged oil or gas well can lead to environmental hazards including air, water or soil contamination. It is estimated there may be as many as 350,000 abandoned or orphan wells in Pennsylvania, but over the last four years, DEP's plugging program has averaged less than 100 wells plugged each year given available resources. For example, an investment of \$10 million into the program will result in between 1,000 and 2,000 additional wells being plugged.

- **Making Communities Safer through Floodplain Protection**

Floodplains are a very important part of Pennsylvania's environmental, economic and social landscape. With over 83,000 miles of stream and the Federal government having officially mapped floodplains in approximately 2300 out of over 2560 Pennsylvania municipalities, the floodplain impacts the daily lives of many Pennsylvanians. Poor land development patterns in the floodplains occurring over the past three centuries have negatively affected water quality and have resulted in significant property damage.

Nonstructural floodplain management/mitigation measures may be an effective alternative to a structural solution to minimize flood damage, reclaim and restore the quality of floodplains, and improve the natural functions of stream channels. Nonstructural measures include acquisition of properties, relocation of inhabitants, demolition of structures, and improvements to the stream channel and floodplain such as creating natural areas, community parks and recreation facilities, and greenway and trail corridors.

## Creating Prosperous and Sustainable Communities

- **Encouraging New Farmers**

Roughly 1,500 preserved farms have transferred to new owners and this number will increase exponentially over the next decade. The average age of the Pennsylvania farmer is 58 years old. Young farmers often do not have access to land or the capital to purchase land even at its restricted value. Incentives are needed to enable young farmers to invest in purchasing a preserved farm. The Preserved Farmland Incentive Program will help assure the viability of

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preserved farms by incentivizing a young and skilled workforce to invest in preserved farmland. Under this proposed program, the Department of Agriculture would seek participating lenders and subsidize the interest on fixed loans for qualifying buyers for a period of 5-10 years– helping young farmers make the large upfront investment required. \$5 million over a period of six years could help to achieve the pilot program’s goal of assisting 250 young farmers with an estimated \$20,000 in interest paid per applicant.

- **Community Planning & Implementation**

Pennsylvania is “Growing Smarter.” State agencies, along with thousands of local officials and other interested citizens throughout the state, are working together to plan for the future health and vitality of our communities. Investments are needed for local government officials, developers and citizens interested in planning to improve, grow and enhance communities. It provides valuable tools that will support wise land use decisions and encourage economic development, a healthy environment and strong communities.

- **Pennsylvania Heritage Areas Program**

The Pennsylvania Heritage Area program has been an extremely popular program for both conservation and economic development focused on the unique cultural assets of each of twelve Heritage regions across the state. DCNR’s investment would advance the acquisition, implementation and construction of key recreation, cultural and historic assets and associated business development to enhance Pennsylvania’s heritage-area communities and supporting tourism industry.

- **MS4 Separate Storm Sewer System Implementation Program**

Grants to design and build projects and best management practices, with an emphasis on green infrastructure, designed to implement local MS4 Separate Storm Sewer System Plans or which count toward the reductions needed to eliminate stream impairments identified in the Integrated Water Quality Monitoring and Assessment Report, implement Total Maximum Daily Load Plans or the Chesapeake Bay TMDL requirements.

- **Nutrient, Sediment, and Stormwater Credit Program**

Water Quality Credit Trading Market. The Pennsylvania Infrastructure Investment Authority shall establish a Water Quality Trading Market to facilitate the registration, sale and trading of Water Quality Credits approved by the department.

- **Community Parks, Recreation, and Greenways**

There are more than 5,000 community/local parks across the Commonwealth. Many of these parks were developed originally in the 1960s and 1970s when federal Land and Water Conservation Funding was more plentiful. Today, a substantial number are in great need of upgrades to promote accessibility, safety, facility modernization and to accommodate new recreational demands. In addition, community parks not only provide needed places to recreate and promote health and fitness, but can provide multiple environmental benefits. The City of Philadelphia uses pocket parks to enhance stormwater management, limiting flooding and improving water quality. Lancaster City uses green parks, roofs and alleys to lower stormwater management costs. With increased investments in community parks, DCNR will be able to



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leverage additional funding through its competitive grants program to modernize nearly 250 community parks to assure that they are safe, accessible and ready-to-use.

- **Closing Gaps and Enhancing Access in the PA Trail Network**

Pennsylvania boasts over 11,000 miles of open trails and is home to 5 of the top 20 most popular trails in the U.S. However, maintenance is constantly needed and for many of the most popular trails, which are several decades old, major renovations are needed in the near future. Costs for renovation projects can vary from \$100,000 to \$200,000 per mile. With matching funds leveraged through competitive grants, that number of trail miles could be 600 or more. In addition, completion of Pennsylvania’s state system of trails—with a particular focus on “gaps” in long trail systems—is a key priority for DCNR. DCNR has a goal of providing a trail within fifteen minutes’ drive of every Pennsylvania resident. Pennsylvanians surveyed through the state recreation plan identified Top 10 Trail Gaps for closure by 2019.

- **Developing New Urban Parks, Trails and Riverfronts**

Parks and open space are a catalyst for sustainable community development. Growing Greener funding will assist the creation of open space, bike/pedestrian connections, and riverfront access in Pennsylvania’s core communities, particularly in urban areas with more than 10,000 residents. The creation of new parks, trails and riverfronts will act as a catalyst for broader community redevelopment. New Growing Greener funding will leverage both public dollars, such as multimodal funding, but also private business and philanthropic funding. Given the nature of these projects, numerous funding sources would have strong interest in collaborating.

- **Greening Urban Communities**

Growing Greener offers the opportunity to interweave sustainability and conservation into community development initiatives through grant funding that supports both energy efficiency and stormwater management. Appropriate uses of funding include retrofits at anchor buildings; streetscape improvements like energy efficient lighting, tree plantings, community gardens, and bioswales; or renewable energy installations as part of other community improvement efforts. Funding should prioritize public-private participation. For energy-related projects, those that take advantage of Act 129 rebates, in partnership with the applicants’ local utility, and/or the PennSEF financing program are preferred.

- **Investing in Renewable Energy: Farms and Small Businesses**

Farms and small businesses often have ideal open space and rooftops to take advantage of renewable energy. Through Energy Harvest grants, organizations can install renewable energy systems to offset use at a single-facility. These projects result not only in environmental benefits, but also benefits to the business owner’s bottom-line, as money not paid towards a utility bill can go back into the business.

- **Historic Preservation Project Grants**

Funding under the Historic Preservation Project Grant program is available to nonprofit organizations and local governments for the planning and development for publicly accessible historic resources listed in or eligible for listing in the National Register of Historic Places. Grants support projects that identify, preserve, promote and protect historic and archaeological resources of Pennsylvania for both the benefit of the public and the revitalization of

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communities. Pennsylvania Historic Museum Commission provides funding for construction projects that rehabilitate, restore, or preserve historic resources listed in, or eligible for, listing in the National Register of Historic Places to nonprofit organizations and local governments for small construction projects for publicly accessible historic resources.

**UPDATES: 09/13/16**