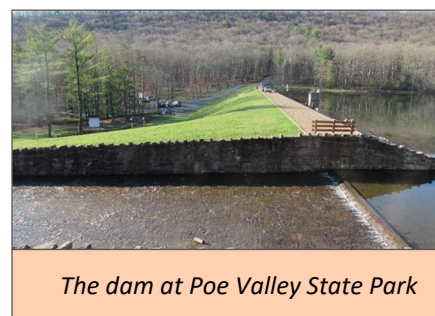


# Pennsylvania State Parks and Forests Infrastructure and Its Needs

“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. ”

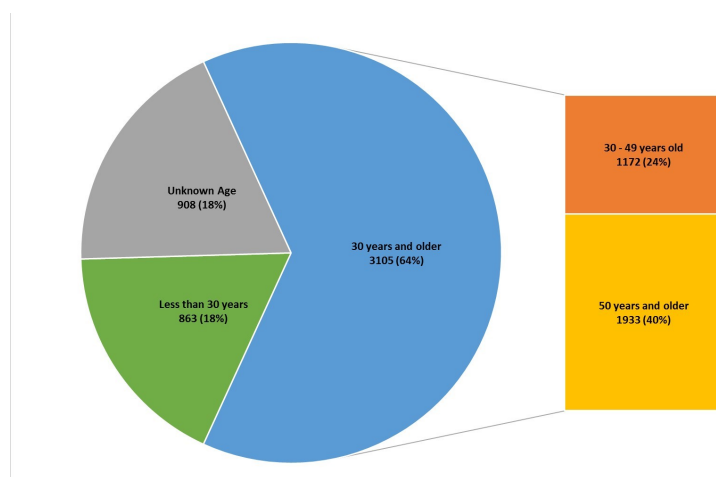
– Pennsylvania Constitution, Article I, Section 27

The diversity of recreational opportunities makes Pennsylvania an attractive place to live, work, and play. State park and forest staff works daily to ensure the infrastructure under their control is as well managed and ready for public use as possible. However, cuts in staffing and budgets over the years have created a situation where not all infrastructure maintenance needs can be addressed in a timely manner.



As owner and operator of public water supplies, wastewater treatment plants, high hazard dams, and vehicular bridges, DCNR is heavily regulated by state and federal agencies. DCNR is charged with ensuring that the protection of public health and safety is paramount in day to day operations of state park and forest facilities. These responsibilities require rigorous training, specialized equipment, and prioritized funding that is not always readily available.

FIGURE 1: THE AGE OF DCNR'S BUILDINGS



Many of our state parks are age cohorts—developed either during the Civilian Conservation Corps (CCC) era (1933-1942) or the Goddard era (1955-1979). Thus, their infrastructure needs are developing on a similar timeline. Other parks and forests like Presque Isle and Ohiopyle state parks are heavily used, where the increased demand creates more wear and tear on the infrastructure.

# Maintenance Defined

Maintenance is “keeping park and recreation areas and facilities in their original state or as nearly so as possible.” (Sternloff & Warren, 1993, p. 5). This definition applies to the human “built environment,” but also to natural features and areas. Maintenance encompasses a wide range of activities and investments, but are generally divided into three major classifications:

## *Routine Maintenance -*

Generally custodial in nature, non-specialized, re-occurs frequently in short time increments, and primarily focused on cleanliness, orderliness, health, safety, and functionality of existing park facilities and areas.

## *Preventive Maintenance -*

Maintenance done proactively to stop or minimize an anticipated deterioration, failure, or damage to equipment, facilities, or settings. Extending the useful life of equipment and the environment. Is accomplished through cyclical assignment (e.g., once every spraying invasives twice per year)

## *Corrective (Repair) Maintenance –*

Sometimes called “emergency” or “breakdown” maintenance is having to fix something that fails – involves repairing or replacing the equipment or systems. Often because of public safety or public use requirements, this maintenance needs to be addressed immediately.

According to Sternloff and Warren there are 12 guiding principles or fundamental truths basic to effective maintenance of parks and recreation areas. Of these, at least four are particularly relevant to the needs identified in this report: 1). agencies must provide adequate fiscal resources to support the maintenance program, 2) agencies must provide adequate personnel to carry out the maintenance function, 3) the maintenance program must be designed to protect the natural environment, and agency maintenance must assume the responsibility for public and employee safety. (pp. 11-16)

And still others like the Loyalsock State Forest and Cook Forest State Park experience natural disasters like flooding and invasive insect outbreaks that put an added strain on the infrastructure.



*Road damage caused by Loyalsock Creek flooding*

The infrastructure maintenance project inventory for Pennsylvania state parks and forests has grown to more than \$500 million for state parks and \$500 million for state forests. Maintenance of state parks and forests is a year-round operation that will always be needed. Some of the major maintenance funding needs are listed below, along with a map of all infrastructure needs projects statewide.

## *Sampling of Major State Park and Forest Maintenance and Project Funding Needs*

Renovate the District Office serving the Cornplanter State Forest. **Estimated cost is \$2 million.**

Make canal infrastructure improvements at the 65-mile long Delaware Canal State Park, which had more than 1.3 million visitors in 2017. This historic resource is very popular for recreation. **Estimated cost is \$28 million.**



*A bridge over the canal at Delaware Canal State Park*

After a concessionaire walked away from an agreement to operate the ski area at Denton Hill State Park, DCNR was left with the project to rehabilitate and replace facilities including the ski lodge, lifts, trails, and snowmaking equipment.

**Estimated cost is \$12-\$16 million.**



*The lodge at Denton Hill State Park*

Replace outdated forest maintenance headquarters across Pennsylvania including the Hicks Run and Brooks Run facilities in



Elk State Forest, the Snow Shoe facility in Sproul State Forest, the East Licking Creek facility in Tuscarora State Forest, and the Babcock facility in Gallitzin State Forest. These multi-bay garage, equipment storage, and office facilities are heavily used and serve as the hub for forest infrastructure upkeep such as gravel road maintenance, snow grooming, and prep work for commercial logging activities. The facilities keep heavy equipment safe secure and out the weather and provide indoor space for equipment repair. **Estimated cost is \$20 million.**

Remove sediment that has accumulated in many of the Department of Conservation and Natural Resources' (DCNR) state park lakes, reducing water depths, and inhibiting fishing and boating activities. **Estimated cost is \$35 million.**

Upgrade camping areas at several state parks to full service campsites that include individual water, sewer and electrical hook-ups to accommodate camper needs. **Estimated cost is \$4 million.**



*Shaggers Lake in  
Moshannon State Forest*



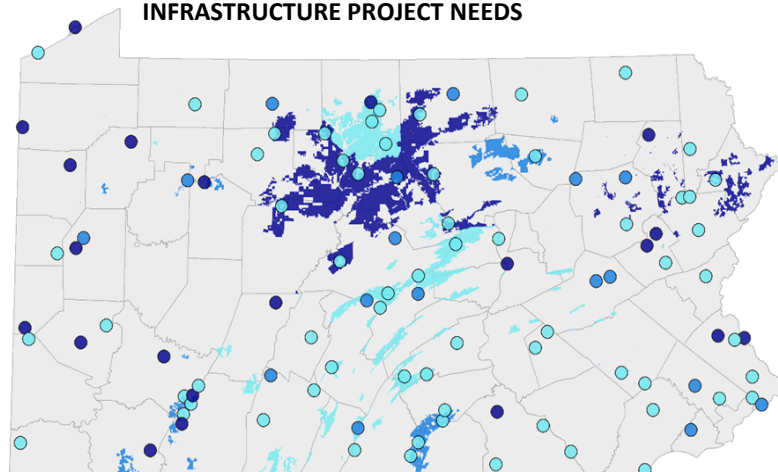
*A beach house in need of repair at  
Presque Isle State Park*

Replace beach houses, repave roads and parking lots, and improve water and sewer facilities throughout Presque Isle State Park, which had more than four million visitors in 2017. Construct pedestrian and bike access to the park from the city of Erie. **Estimated total cost is \$50 million.**

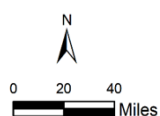
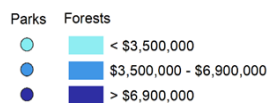
Rehabilitate and replace office, maintenance, storage, and fueling facilities at DCNR's Fire Operations at Hazelton Airport and Midstate Airport.

These facilities support the Bureau of Forestry's aerial surveys, fire watch, and fire suppression work throughout the state. **Estimated total cost is \$10 million.**

**FIGURE 2: PENNSYLVANIA STATE PARK AND FOREST  
INFRASTRUCTURE PROJECT NEEDS**



Unfunded Cumulative Infrastructure Cost Needs  
for State Parks and Forests



Sources: DCNR 2017; PennDOT 2017

Replace stormwater pipes and inlet boxes, re-pave roads and parking lots, and provide for safer vehicle travel conditions for the nearly one million annual visitors at Ridley Creek State Park. **Estimated cost is \$5 million.**



*A road in need of repair at  
Ridley Creek State Park*

## DCNR Infrastructure Project Costs Defined

The total dollar amount of Pennsylvania state park and forest infrastructure projects is just over \$1 BILLION and can be grouped generally into the following categories:

Visitor Services /Administrative Support – This category includes facilities such as park and forest district offices, contact stations, visitor centers, and maintenance and service facilities. Total dollar amount is approximately \$194 million (\$78 million for state parks, \$116 million for state forests).

Dams/ Impoundments - This category includes dams and related hydraulic structure and components as well as the lakes and ponds. Total dollar amount is approximately \$95 million (\$54 million for state parks, \$41 million for state forests).

Overnight Facilities – This category includes campgrounds, cabins/ lodges, camping cottages, and associated buildings (bathhouses, restrooms, etc.). Total dollar amount is approximately \$49 million for state parks.

Recreation Support / Resource Management – This category includes a wide range of facilities and work specifically tied to recreation and resource management such as invasive plant and hazardous tree removal, abandoned mine remediation, well plugging, stream bank stabilization, comfort stations, pavilions, pools, trails, playgrounds, picnic areas, ski areas, and marinas. Total dollar amount is approximately \$546 million (\$222 million for state parks, \$324 million for state forests).

Transportation Infrastructure – This category includes roads, bridges, and any related appurtenances. Total dollar amount is approximately \$110 million (\$83 million for state parks, \$27 million for state forests).

Water and Sewer Infrastructure – This category includes water and sewer conveyance and treatment facilities such as pump stations, treatment plants, pipelines, and in-takes. Total dollar amount is approximately \$66 million (\$57 million for state parks, \$9 million for state forests).

Figures 3 and 4 below show where infrastructure maintenance dollars are needed within Pennsylvania state parks and forests. The largest amount is needed for **Recreation Support / Resource Management**, which includes invasive plant and hazardous tree removal, acid mine drainage remediation, stream bank stabilization, comfort stations, pavilions, pools, trails, playgrounds, and picnic areas. Other infrastructure needs include roads, bridges, dams, and water treatment facilities, as well as signs, picnic tables, grills, fire pits, and other smaller needs. A stable, dedicated source of funding is needed to keep up with the repairs, upgrades, and regulatory changes to infrastructure safety standards that DCNR must abide by.

FIGURE 3: STATE PARK INFRASTRUCTURE MAINTENANCE INVENTORY

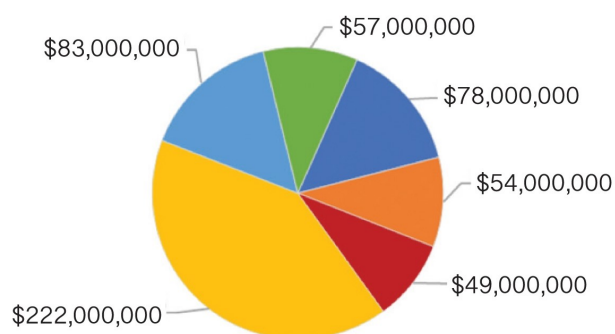


FIGURE 4: STATE FOREST INFRASTRUCTURE MAINTENANCE INVENTORY

