

Pocono Environmental Education Center Campus Restoration

Size & Type of Project:

Environmental Education Center
Campus restoration; 38 acres

Location:

Delaware Water Gap National
Recreation Area,
Northeastern Pennsylvania

Budget:

\$6,500,000



One of the rain gardens on campus

Project Phase:

Complete

Project Overview

The Pocono Environmental Education Center is located 20 miles from the tri-state junction of Pennsylvania, New Jersey, and New York. The center provides environmental education to 25,000 visitors a year ranging from school groups to family reunions and gives these groups access to boreal bogs, fossil littered quarry, hemlock gorges, upland and lowland forests, as well as numerous ponds, streams and waterfalls. Due to the age of the center, a major restoration project of the entire campus was undertaken at a total cost of approximately \$6.5 million. The restoration included both building energy efficiency upgrades and sustainable site improvements. While most of the restoration is complete, there are a few cabins that still need to be restored and energy efficient improvements are needed in several campus buildings. PEEC is a non-profit organization and was able to raise much of this total from private contributions. The remaining money came through grants to PEEC from the National Park Service, PA Department of Community and Economic Development, PA Department of Environmental Protection, PA Redevelopment Capital Assistance Program and the PA Department of Conservation & Natural Resources. DCNR provided \$450,000 in two different grants.



Native wildflower garden

Site Context

The Pocono Environmental Education Center (PEEC) is one of seven residential environmental education centers in the nation that are in partnership or within the borders of the National Park Service. It is located on a 38-acre site in northeastern Pennsylvania's Delaware Water Gap National Recreation Area and is in proximity to many PA state parks and forests. The site was previously owned by Honeymoon Haven, a Pocono honeymoon resort, until the Keystone Junior

College and the National Park Service became partners in 1972 to form PEEC. PEEC supplies visitors the option of staying over; therefore the center has many cabins on site and is also equipped with a dining hall. The majority of the other buildings within the campus are designated for educational purposes and staff use.

Sustainable Practices

Rain Gardens and Runoff Water

Management:

Throughout the site, rain gardens were constructed to manage and filter runoff from the campus. Runoff is being controlled further by improvements made to the grade of the paved surfaces in order to prevent water from pooling on the pavement. Both to save water resources and monetary resources, recycled rain barrels were installed under many roof drains. The rain water collected is used to water the newly installed gardens.



Habitat Restoration:

Along with rain gardens, native wildflower gardens were constructed. These wildflower gardens establish a habitat for many species of birds. The construction of both the rain gardens and wildflower gardens serve to control erosion and water runoff. Only native plants were used in this project. Seed material for all campus plantings cost \$7,700.

Reusable Materials:

Teaching is the main focus of the center; therefore, the project involved the creation of a 30 ft. by 60 ft. outdoor classroom. The classroom includes benches made of recycled trex material, costing \$600 each. Picnic tables and trash cans added throughout are also made of the recycled trex material -- the picnic tables cost \$800 each. Not only were the picnic tables and benches made of a recyclable material, but they are also completely handicapped accessible, allowing the classroom to accommodate all persons. Recyclable materials can be found in the

interior walls of the dining hall. They are made with a mixture of fly ash, or recycled fire ash, and cement to make cinderblock walls. One

side of the dining hall outside wall was replaced with recycled tire treads.



Tire siding on dining hall

Energy-saving Construction Practices

Many energy saving practices were applied to the existing buildings and cabins on the campus. New cabins and lodges were constructed by using two walls of foam and filling the space in between the walls with cement. This is a greening technique used to increase the insulating value of the cabin

structure. Continuing with the greening theme of the structures, hardie board siding was used on each cabin and lodge. Hardie board siding is mostly made of concrete and is resistant to moisture and bugs.

Monitoring Information/ Maintenance

Both staff and visitors agree that the project was highly successful. The improvements made on PEEC have been both for the benefit of people and the environment. Maintenance of the site is an important factor in the visitors' satisfaction. A maintenance staff, hired by the educational center, is responsible for all maintenance, upkeep, and repairs. Community volunteers and Student Conservation Association summer workers also participate in the site maintenance.



Yurt village, green lodging available for visitors

Project Consultants

PEEC's Staff and Board of Trustees
Delaware Water Gap National Recreation Area
Puente Construction
Simone Collins—Landscape Architecture