Day: Sunday	**Start Time:** 8:30 am	**End Time:** 2:30 pm
Co-Leader:	**Co-Leader**:	**Limit**: 15 people
Transportation: Bus	**Driver:**	**Radios**: 2 / **First Aid Kit**: 1
Fees: $14 Transportation Fee	**Travel Distance:** 30 Miles R/T	**Travel Time:** 50 Min R/T

Moderate Hiking at PEEC: 3.8-Mile Tumbling Waters Trail and 1.5-Mile Scenic Gorge Trail

Discover the breathtaking beauty of Tumbling Waters Trail, a captivating 3.8-mile hike that winds alongside serene creeks and through lush hemlock ravines. This moderately challenging trail, marked with vibrant orange blazes, begins at Fossil Trail, conveniently located just thirty yards from the Pocono Environmental Education Center's dining hall, directly across from the group lodges.

Start your adventure and, after a mile, be rewarded with stunning vistas from Hermits Hill, where mesmerizing views of the Delaware Valley and Kittatinny Mountains await. Experience the rich diversity of nature along the path, which meanders through majestic oak and hickory forests, as well as hemlock ravines showcasing remnants of historic farms.

Venture down a series of switchbacks at 1.5 miles, where wooden stairs lead you 240 feet down to a picturesque waterfall—a perfect spot to pause for lunch and enjoy the tranquil sounds of nature. After rejuvenating, tackle the ascent back to the main trail, summiting Killer Hill with an elevation gain of 340 feet from the falls to the peak. Encounter a variety of landscapes, including a beautiful hemlock forest, a mixed oak forest, and a peaceful pine plantation, which leads you to Pickerel Pond, just minutes from the trail's end.

After a well-deserved break at the main lodge for restrooms, continue your journey with an additional hour of hiking on the easy-to-moderate 1.5-mile Scenic Gorge, starting with the welcoming Ridgeline Trail. Immerse yourself in the stunning open hardwood forest ecosystem, contrasting with the cool, dark canopy of hemlocks beside Spackman's Creek.

You can extend your outdoor adventure by exploring the engaging displays at the PEEC grounds, located right in the main lodge, making for an unforgettable visit.

- This is a repeat of Saturday's Activity.
- Bring standard hiking gear: Hat, Walking Stick, Water, Food, Hiking Shoes
- Pack lunch at breakfast to bring with you
- Maps: NYNJTC Delaware Water Gap & Kittatinny Trails Map 2021 - 8th edition Paper / Digital
- Cost: $14 Transportation Fee (bring cash with you to the gift shop)
- Time: 8:30 am ~ 2:30 pm
- Limit: 20 People
- Round Trip Driving: 13 Miles / 50 Min
- Vehicle: Bus
- Video of Tumbling Waterfall / Video of Hike 1 / Video of Hike 2
- Pictures of the trail

Leaders' Notes:

- For emergencies, call 911 first, then Park Dispatch at (570) 426-2435 or (800) 543-4295. The National Park Service manages the Delaware Water Gap: http://www.nps.gov/dewa.
- You will be on-site with another group hiking the Ridgeline Trail. The Scenic George and Ridgeline Trail hikes follow the same route for the last 0.7 miles. I suggest coordinating with the leader of the other hike on-site to meet up along the trail and finish at the same time.
- You are doing two separate hikes that both end and start in front of PEEC's office.
- Expect to spend time at the waterfall — a good place for a snack break.
- There is a decent long uphill from the waterfall back to the office. Pace yourself.
- Bring plenty of water. Refills are available at the main lodge.
- Most of the trail is covered. Keep a hat on to keep ticks and bugs off.
- During the rainy season, this trail can be muddy in sections, so waterproof footwear is recommended.
- If transportation is via a School Bus, **do NOT stop for Ice Cream in Milford** on the way back unless **you are willing to pay Mosaic for the extra bus fees** (over $300 previously) caused by the additional time and stop. Please adhere to the planned transportation schedule.

Vendor: The Pocono Environmental Education Center (PEEC)

- 538 Emery Road, Dingmans Ferry, Pennsylvania 18328-9614
- 570-828-2319 / 570-828-9695
- peec@peec.org / https://www.peec.org
- https://maps.app.goo.gl/TABo3iUgQyvdHLa8A

Logistics

- 8:30 am – Depart from Camp
- 8:30 am – 9:00 am Travel from Camp Nah-Jee-Wah to Pocono Environmental Education Center
- 9:00 am – 9:15 am Bathroom, Gear Check, Leaders Circle Talk
- 9:15 am- 11:30 am: Tumbling Waters Trail
- 11:30 am – 12:00 noon: Bathroom break
- 12:00 noon – 1:30 pm: Scenic Gorge Trail (If you cannot start this by noon, either do not bother or set a turn-around time and complete only part of the loop.)
- 1:30 – 2:00 pm: People gather in the bathroom.
- 2:00 pm - 2:30 pm Travel from PEEC to Camp

PEEC's Educational Goals

PEEC's Environmental Study Goals

- To raise awareness of environmental issues through both formal and informal educational initiatives.
- To assist individuals in acquiring knowledge, skills, attitudes, motivation, and a commitment to enhancing the quality of the environment.

PEEC's Environmental Education (EE) Objectives

- **Awareness:** To help individuals and social groups develop a strong concern for the environment and the motivation to actively participate in its protection and enhancement.
- **Knowledge:** To enable individuals and social groups to understand the environment, its associated problems, and humanity's critical role in responsible stewardship of it.
- **Attitude:** To encourage individuals and social groups to adopt social values and develop the capacity to make informed choices while fostering sensitivity to environmental issues.
- **Skills:** Equip individuals and social groups with the essential skills to tackle environmental challenges.
- **Evaluation:** To guide individuals and social groups in assessing environmental measures and educational programs based on ecological, political, economic, social, and academic factors.
- **Participation:** To motivate individuals and social groups to take decisive action to address environmental issues.

PEEC's Environmental Education (EE) Guidelines

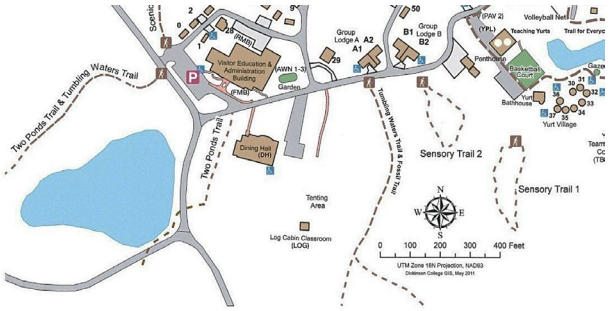
- Environmental education (EE) encompasses comprehensive education in a complete environment—natural and human-made, ecological, technological, social, cultural, and aesthetic.
- EE is a continuous, lifelong journey that occurs both formally in schools and informally outside of them.
- EE is interdisciplinary in nature.
- EE emphasizes the active involvement of individuals in preventing and resolving issues.
- EE analyzes issues from a global perspective while considering regional differences.
- EE addresses current and future environmental challenges.
- EE assesses all development and growth through an ecological lens.
- EE fosters collaboration at local, national, and international levels to tackle environmental issues.

Tumbling Waters TRAIL GUIDE

- Moderate Difficulty Level: 2 hours- 3.01 miles Elevation Gain: 518 feet
- Trail Condition: Well-maintained trail / Hike Type: Loop / Trailhead: The trail starts at the PEEC main lodge.
- Tumbling Waters: This 3-mile orange-blazed trail begins along the Fossil trail, across from PEEC's two group lodges, thirty yards up the campus road from PEEC's dining hall.
- At 1 mile, enjoy the beautiful overlook of the Delaware Valley & the Kittatinny Mountains in New Jersey
- At 1.5 miles, take a series of switchbacks to the waterfalls.
- Climb the switchbacks to continue the main trail, which quickly ascends Killer Hill through a hemlock forest, a mixed oak forest, and a pine plantation before arriving at Pickerel Pond, approximately 10 minutes from the trail's end.
- This takes you to the parking lot opposite the main building. Give yourself at least two hours to hike this scenic trail.

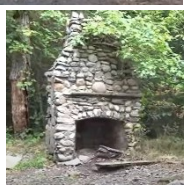
Tumbling Waters Hike Trail Guide

1. This 3-mile orange-blazed trail begins along the Fossil trail, across from PEEC's two group lodges, thirty yards up the campus road from PEEC's dining hall. You will find signs for Fossil and Tumbling Waters Trails, which both start here.



2. At the 1/10-mile mark, the Fossil Trail (blue) will split off to the left. Stay on the trail of tumbling waters (orange) to the right. From this point, it is another 1.2 Miles to the stairs to the falls.

3. Right after Fossil Trail splits off, you go 2/10 mile to cross Brisco Mountain Road and cross over Alica Creek shortly thereafter.
4. Pass some ruins of a chimney.



5. About one mile after the fossil trail splits, there will be a good outlook of the valley below, along with a bench.
6. Then it descends steeply.
7. You will then reach a point where the trail turns right, heading back uphill and passing by stairs that lead down. The waterfall is located at the bottom of these stairs, approximately 240 feet below the stairs.

8. Carefully head down the stairs. There are several switchbacks to navigate on the way down to the falls.
9. Spend some time enjoying the falls while keeping track of time.
10. Return the way you came up the stairs. Take your time. It is steep.

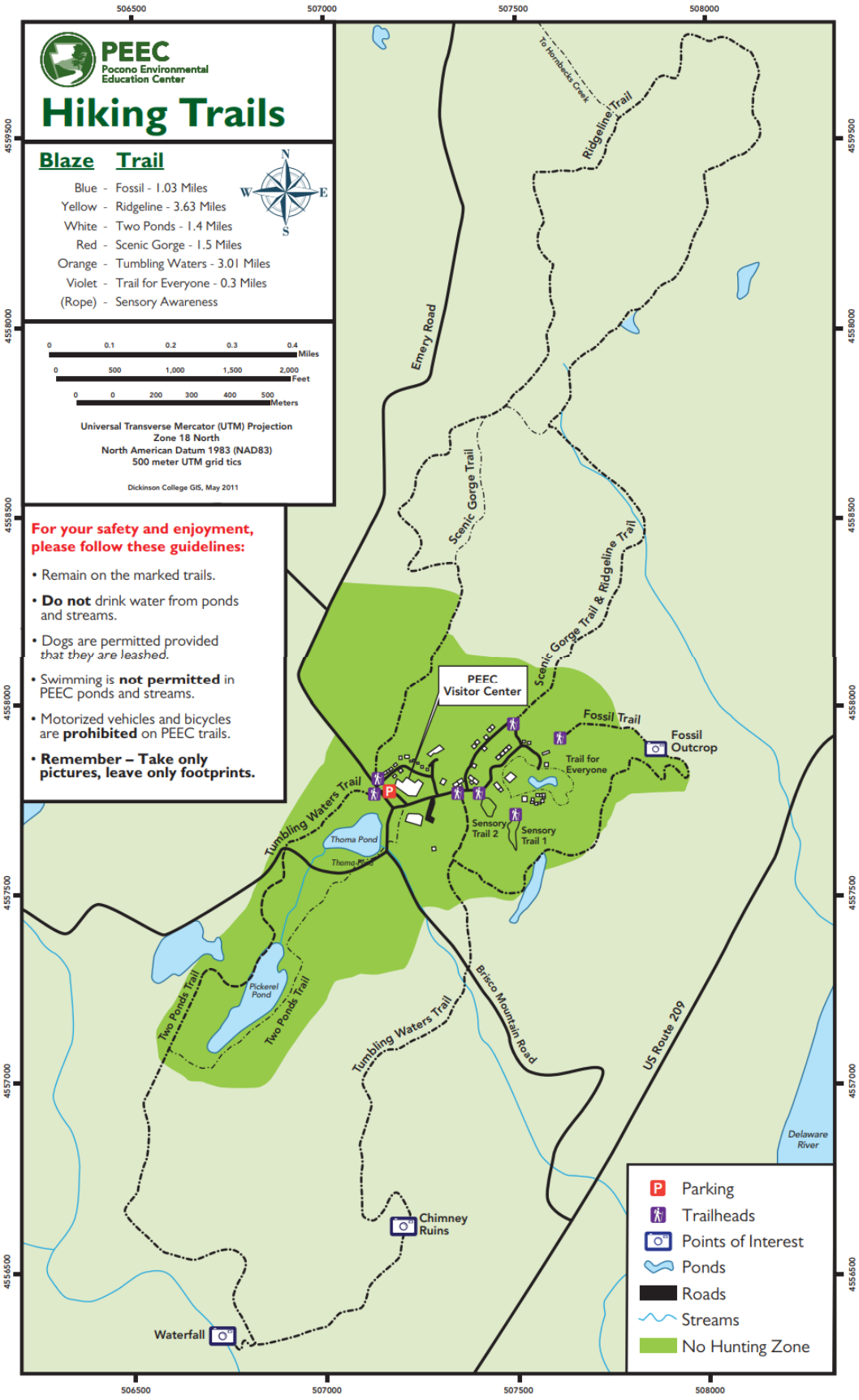
11. Once back on top of the stairs, turn left to continue along the path in the opposite direction from which you came. The trail will continue uphill for approximately 0.3 miles and then level off.
12. At another .85 miles, you will come to Two Ponds Trail (White). Stay to the left to keep on the orange markings for another 0.5 miles. You will pass the first pond along the way.
13. Carefully cross over Brisco Mountain Road.
14. Then, continue another 0.5 miles to pass small Thomas Pond and to the end of the trail.

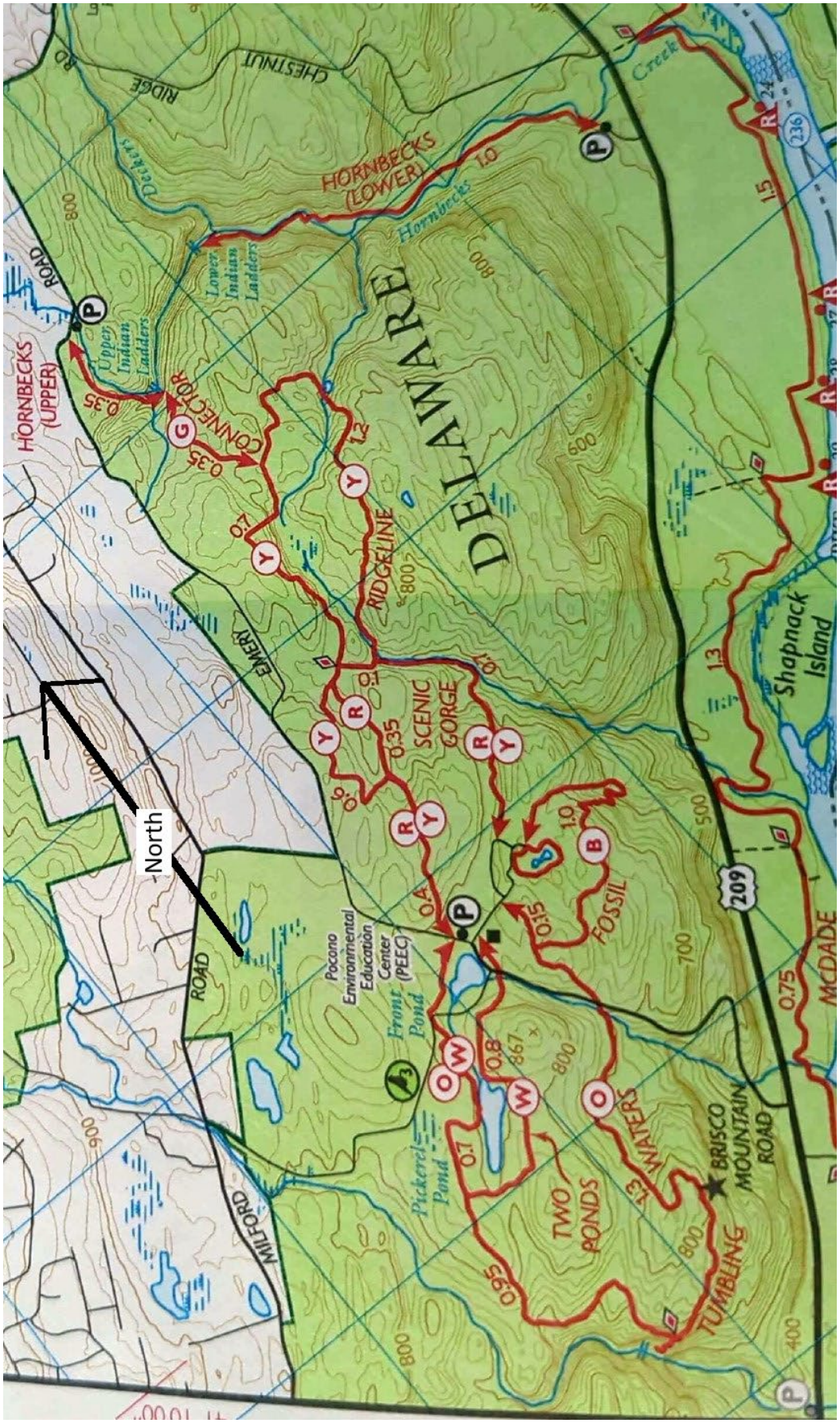
Description of Tumbling Waters Trail by PEEC

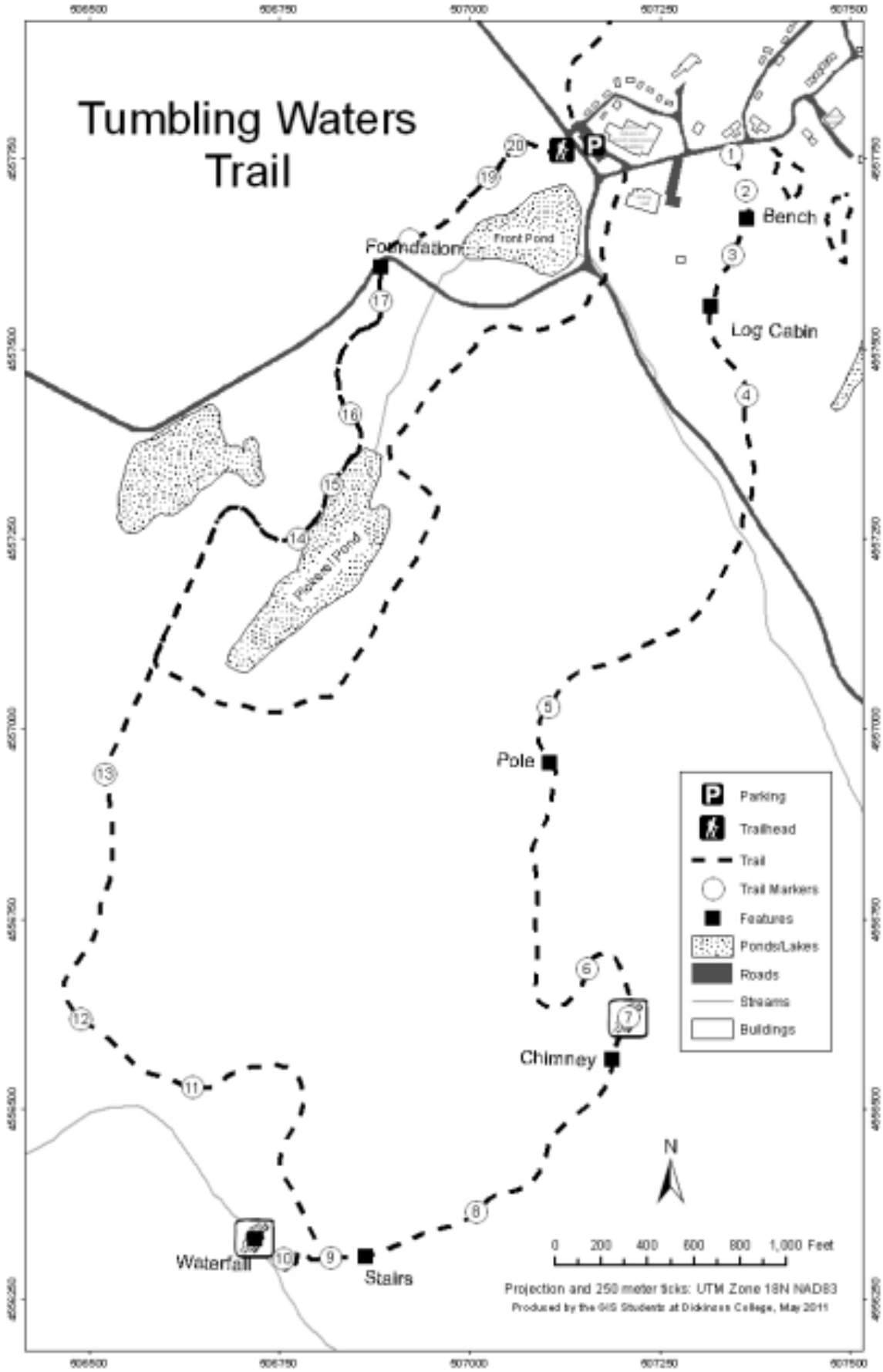
1. **WELCOME** to the Tumbling Waters Trail at the Pocono Environmental Education Center. This three-mile trail features bright orange blazes and is located across from Lodge A. Allow approximately two hours to complete it. The trail meanders through diverse Pocono habitats, including hemlock ravines, upland oak forests, and pine plantations. Highlights include a scenic view of the Delaware River Valley and a shaded waterfall nestled within a hemlock ravine. The numbered markers correspond with the entries in this guide, offering insights into the area's natural and human history. While hiking, please respect the environment and follow Leave No Trace principles.
3. **EXPOSED BEDROCK** This vast area of exposed bedrock features parallel grooves and scratches. Standing here 13,000 years ago, you would have found yourself beneath a glacial ice sheet more than a mile thick. Rocks carried by glaciers created these marks as they scraped the surface, showing that this region was covered during the last ice age. A compass can determine the orientation of the striation, indicating the direction of ice flows.
4. **CEDAR KNOLL** This area is Cedar Knoll. The trail descends to Brisco Mountain Road through an open field abundant with red cedars, gray birches, and Scotch pines. Exercise caution when crossing the road. After crossing, continue along the gravel path marked by orange blazes. Watch for remnants of wire fences from previous landowners on the right side of the trail.
5. **LANDOWNER'S HOUSE** This clearing was the location of the landowner's house. Look for past features, such as a telephone pole, an old spring house, and some garden flowers. This area was farmed until the 1930s.
6. **Mixed Oak Forest:** The woodland resembles the higher elevations of the Poconos and is classified as a mixed oak forest. The dominant trees include chestnut oak, red oak, several species of ash, hickories, and shrubs such as shadbush and blueberry, with scattered white pines. Ahead, you will notice several tall white pines. A sizeable dead pine on the right was struck by lightning in the summer of 2000. Look at the split spiraling down the tree; it is not the path of lightning. Lightning superheats sap, causing gases to escape and blow off a chunk. The spiraling structure of this white pine causes the blown piece to wrap around the tree.
7. **Eagles, Snakes, Hawks & More!** This stone fireplace is all that is left of a small cabin that once stood here. While walking along the ridge, keep an eye out for soaring bald eagles (Haliaeetus leucocephalus), turkey vultures (Cathartes aura), and hawks—especially during migration periods in the spring and fall. There are two species of venomous snakes in this area—the northern copperhead (Akistrodon contortrix moccasin) and the timber rattlesnake (Crolatus horridus). Both prefer wooded hillsides and sunny, rocky ledges. Many people often misunderstand and fear these snakes, as well as all snakes in general. This fear leads to persecution and senseless killing. Snakes are essential to a healthy, diverse ecosystem and are entirely harmless when left alone.
8. **Delaware River Valley:** Take in the stunning view of the Delaware River Valley. This land, part of the 80,000-acre Delaware Water Gap National Recreation Area, was acquired by the federal government in the 1960s for a dam project that was later abandoned. The valley was once a reservoir, but it was transferred to the National Park Service by the government. Across the river valley lies the Kittatinny Ridge, a 400-mile-long segment of the Appalachian Mountains, along which the 2,100-mile Appalachian Trail runs. Here, you will find scrub oaks (Quercus sp.), the smallest oak species in the Poconos. The trail descends into the ravine. Watch your step; it is steep and rocky. On sunny days, keep an eye out for the elusive fence lizard (Sceloporus undulatus) as it darts over rocks or hides behind trees. It is one of three actual lizards native to Pennsylvania.
9. **Switchback Trail: The Switchback Trail** leads to the waterfalls. Stay on the trail—no shortcuts—to prevent erosion. As you descend, notice the drop in temperature. The forest will transition from a mixed oak to a hemlock ravine. The eastern hemlock (Tsuga canadensis), Pennsylvania's state tree, is a large evergreen with short, flat needles and tiny cones. Its bark was harvested for tannic acid used in dyeing leather.
10. **Enjoy the Waterfall:** You can see the waterfall here. Enjoy the beauty at this halfway point of the trail, dominated by hemlocks. Few plants grow due to limited sunlight, but shade-tolerant species, such as rhododendrons, mosses, and ferns, thrive. Water levels fluctuate seasonally, revealing a diverse array of aquatic life, including salamanders, crayfish, frogs, and fish. The tumbling water provides essential dissolved oxygen. This stream's source includes lake water, groundwater, and rainfall runoff, which flow into the Delaware River approximately one mile downstream. To continue, return up the switchbacks and turn left at the top.
11. **BETULA LENTA** This marker is on a black birch (Betula lenta) tree. Black birches can occasionally be found in hemlock forests. Their sap was traditionally used to make birch beer, an alcoholic beverage popular among early settlers. The hard, dense wood is utilized for making furniture. Various birds, including goldfinches (Carduelis tristis) and ruffed grouse (Bonasa umbellus), feed on the buds and seeds.
12. **MIXED DECIDUOUS FOREST** You're entering another forest transition. Since leaving the waterfalls, the forest has primarily been dominated by hemlocks. The following community features a variety of deciduous trees, including birches, hickories, white and red oaks, as well as small red maples. The canopy here is less dense than in the hemlock forest, allowing sunlight to reach the lower levels, which supports a variety of shrubs, flowers, and grasses. Look for small hemlocks along the transition; these areas, known as ecotones, are excellent for observing wildlife. The diverse plant life provides animals with both food and shelter from both communities.

13. **PINE PLANTATION** You are now entering a pine plantation. These pines were planted about 50-60 years after the preceding forest was logged. Notice how they are in straight lines. The two most common species of pine planted here are the red pine (Pinus resinosa) and the Scots pine (Pinus sylvestris). Look on the ground for needles from both. The Red Pine has 3- to 8-inch needles that come in pairs or clusters of two. The Scots pine also has needles in two clusters, but they are significantly shorter, measuring approximately 1 to 3 inches in length. The Scots pine also has bright orange (or butterscotch) colored bark on the upper half of its trunk.
14. **PICKEREL POND** Pickerel Pond is an artificial pond created by the Pharo family by damming a small stream. It provides a habitat for various plants and animals, including newts, salamanders, and frogs. During the breeding season, you can hear the frogs croaking and spot signs of resident beavers, such as chewed sticks and pointed stumps.
15. **LOOK UP!** Look up, and you'll see an unusual object in this tree; it's a house designed to attract bats. Contrary to widespread belief, bats are not blind; they do not fly into hair, and they cause fewer rabies cases than dogs. They play a crucial role in ecosystems as the primary predators of night-flying insects. The little brown bat (Myotis lucifugus) can consume up to six hundred mosquitoes in just one hour. Unfortunately, many bats are threatened by habitat loss, unnecessary killings, and white-nose syndrome. According to an EPA survey, six of Pennsylvania's 11 bat species are considered of "special concern." This bat box can accommodate over five hundred female bats and their young.
16. **STONE ROWS** You may have noticed stone rows along this trail or in other areas of the Poconos. These rows signify earlier human activity when the land was cleared for lumber harvesting, farming, and pasture creation. Settlers constructed these walls while removing stones from the land. As fertile land became available in the West, these fields and pastures were left abandoned. Over time, the forest has reclaimed the region, yet these walls stand as reminders that the landscape was once quite different. They now provide habitats for both snakes and chipmunks.
17. **NON-NATIVE PLANTS** Take a look at the old foundation. This land was once inhabited. Many non-native plants, such as multiflora rose, honeysuckle, and garlic mustard, flourish here. Early settlers brought these plants either intentionally or accidentally. Nearly one-fourth of eastern plants consist of introduced species. The trail crosses the road and continues through a large hedgerow of forsythia, yet another non-native plant.
18. **EMERGENT WETLAND** This area is an emergent wetland dominated by green plants, including skunk cabbage, sensitive fern, and gray dogwood. Wetlands filter water, control flooding, and provide habitats for a wide range of reptiles, amphibians, insects, and birds. This marker is on a shagbark hickory; notice the bark that gives the tree its name, as bats often hide behind the 'shags.' Wood is traditionally used for making tools and ax handles. The trail continues along another wall. Look for little piles of chewed nutshells on top of the rocks. Chipmunks like to eat where they can survey the area for dangers such as predators.
19. **SUCCESSION:** The open field contrasts with the wetlands and forests. Its drier soil allows sunlight to reach small plants. This area features a diverse array of wildflower species; please refrain from picking them. If left undisturbed, it gradually transitions to taller plants, shrubs, and trees through a process of succession. The "trash graveyard," created in 1998, illustrates the time it takes for trash to decompose. Please do not litter. Follow the tree line and turn right at the post. Look for a tree with three different-shaped leaves; this is a Sassafras tree, traditionally used in the production of root beer.
20. **SHRUB WETLAND** You are walking through a shrub wetland. The boardwalk protects this sensitive area, which transitions from drier uplands to a pond. The diverse array of plants and animals includes gray dogwood, chokecherry, arrowwood, and multiflora rose. Continue along the boardwalk back to PEEC.

The natural world is constantly changing. It changes from season to season, year to year, and century to century. Both natural and human forces continually reshape the landscape. Time itself brings change. We hope this trail has given you a glimpse into the natural world and the beauty of the Poconos. If you have any questions, please do not hesitate to ask at the front desk.


PEEC
Pocono Environmental Education Center
Hiking Trails
Blaze Trail
Blue - Fossil - 1.03 Miles
Yellow - Ridgeline - 3.63 Miles
White - Two Ponds - 1.4 Miles
Red - Scenic Gorge - 1.5 Miles
Orange - Tumbling Waters - 3.01 Miles
Violet - Trail for Everyone - 0.3 Miles
(Rope) - Sensory Awareness
Miles
Feet
Meters
Universal Transverse Mercator (UTM) Projection
Zone 18 North
North American Datum 1983 (NAD83)
500 meter UTM grid tics
Dickinson College GIS, May 2011
For your safety and enjoyment, please follow these guidelines:
• Remain on the marked trails.
• Do not drink water from ponds and streams.
• Dogs are permitted provided that they are leashed.
• Swimming is not permitted in PEEC ponds and streams.
• Motorized vehicles and bicycles are prohibited on PEEC trails.
• Remember – Take only pictures, leave only footprints.
PEEC Visitor Center
Fossil Trail
Fossil Outcrop
Trail for Everyone
Sensory Trail 2
Sensory Trail 1
Tumbling Waters Trail
Thoma Pond
Two Ponds Trail
Pickerel Pond
Scenic Gorge Trail
Scenic Gorge Trail & Ridgeline Trail
Ridgeline Trail
To Hornbecks Creek
Emery Road
Brisco Mountain Road
US Route 209
Delaware River
Chimney Ruins
Waterfall
Parking
Trailheads
Points of Interest
Ponds
Roads
Streams
No Hunting Zone

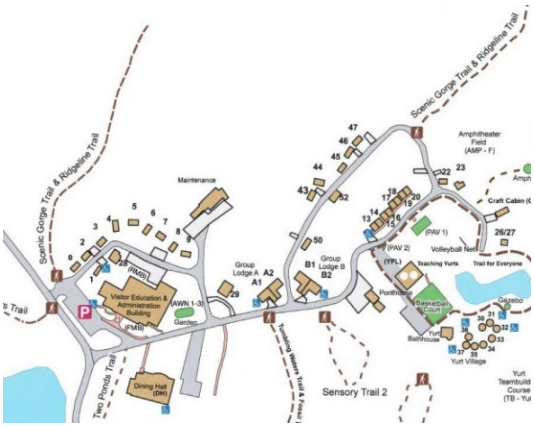

North
HORNBECKS (UPPER)
HORNBECKS (LOWER)
CONNECTOR
RIDGELINE
SCENIC GORGE
FOSSIL
TWO PONDS
WATERS
TUMBLING
BRISCO MOUNTAIN ROAD
MILFORD ROAD
EMERY
DELAWARE
Shapnack Island
Pocono Environmental Education Center (PEEC)
Front Pond
Pickerel Pond
Upper Indian Ladders
Lower Indian Ladders
Hornbecks
Creek
MCDADE
209
236


Tumbling Waters Trail
Foundation
Front Pond
Bench
Log Cabin
Pickerel Pond
Pole
Chimney
Waterfall
Stairs
Parking
Trailhead
Trail
Trail Markers
Features
Ponds/Lakes
Roads
Streams
Buildings
N
0 200 400 600 800 1,000 Feet
Projection and 250 meter ticks: UTM Zone 18N NAD83
Produced by the GIS Students at Dickinson College, May 2011

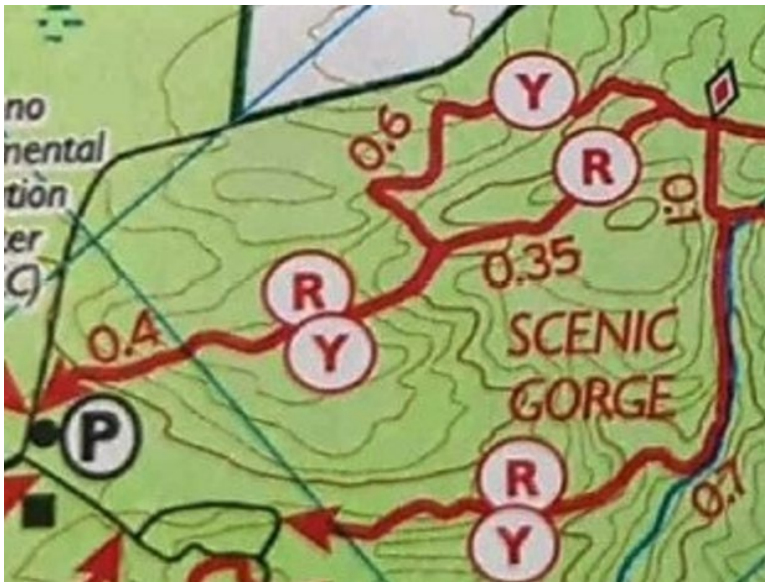
Scenic Gorge Trail

Allow at least an hour to enjoy this 2-mile trail. This trail is blazed in red and begins with the Ridgeline Trail behind Cabin #1. For the first half mile and the last mile of the trail, the Scenic Gorge Trail runs concurrently with the Ridgeline Trail. The trail is moderately challenging, with a few steep sections. Hikers enter a deep, majestic hemlock forest following Spackman's Creek and walk from an open hardwood forest ecosystem into the dark, cool hemlock canopy. This trail can be muddy in sections during the rainy season, so waterproof footwear is recommended. A small waterfall and spring add another layer of natural features to the hike. The trail ends, along with Ridgeline Trail, on Lower Campus. Follow the campus road back to the main building—difficulty: Easy to Moderate. Blaze: Red. Elevation Change: ninety-four feet.

Scenic George Trail Directions



1. Head from the main building to Cabin 1 to the trailhead for the Ridgeline and Scenic Gorge Trails
2. Follow Red Markers for Scenic George Trail. The elevated mounds you will pass are part of a series of septic mounds that hold wastewater from PEEC's campus.
3. At 0.4 Miles, you will come to a sign. Bear right to stay on the Scenic George Trail (Red). Ridgeline Trail (Yellow) is to the left.
4. Come to a bridge where the Scenic George trail meets the Ridgeline Trail again briefly.
5. Stay right at the fork to stay on the Scenic Trail. This is where the trail starts to loop back.
6. At the 0.1-mile mark, you will meet the Ridgeline trail again.
7. Both trails remain together for the next 7/10 miles, finishing at the road within the PEEC campus.
8. Beer right on the road. It will end at a T between group lodges A and B.
9. Turn right at this intersection. Then, head back to the main building, where the bus will be waiting for you.
10. Bathrooms are in the main building.



Scenic Gorge TRAIL GUIDE by PEEC

1 **Welcome to the Scenic Gorge Trail at the Pocono Environmental Education Center (PEEC).** Allow at least an hour for this 2-mile trail, which can be moderately challenging due to its steep sections. Starting next to Cabin 1, it winds through an upland deciduous forest and a hemlock grove alongside Spackman's Creek, concluding at the lower campus. This guide highlights the differences between the two main habitats and explores various microhabitats. A habitat encompasses an organism's environment, influenced by factors such as climate, altitude, moisture, sunlight, and human activities. The numbered markers along the trail align with the explanations in this guide.

2. Creative Playground. This area was referred to as the Creative Playground. The numerous tree stumps and the four wooden posts ahead, on the left, were all features of this natural playground.

3. Poison Ivy: Poison ivy (Toxicodendron radicans) is a member of the Anacardiaceae family. Poison ivy is part of the same family as cashews and plays a crucial role in forest ecosystems. Birds and deer consume the small, white berries without issue, but humans can develop an itchy rash from contact with any part of the plant, including the stems, leaves, berries, or the hairy trunk. Be sure to avoid touching it too often. To identify poison ivy, look for leaves with three leaflets and a vine featuring red-brown, hair-like roots. If you come into contact with the vine, wash with cold water; hot water can open your skin pores, allowing more toxic oil to enter.

4 Tree Life Spans: Trees die due to various causes, including aging, viruses, fungi, insects, lightning, and logging. Many insects inhabit dead trees, breaking down the wood and returning nutrients to the soil. Woodpeckers and other birds feed on these insects, making dead trees essential to the forest ecosystem. Animals like owls, raccoons, and porcupines raise their young in tree cavities. Moss, fungi, and lichen contribute to decomposition. Fungi, such as mushrooms, lack chlorophyll and depend on organic material for energy.

5 European Larch Trees: You can see some European larch trees (Larix decidua), also known as Tamarack. These coniferous trees are distinctive because they are evergreen, retaining their leaves throughout the year. Tamarack wood is strong and resistant to disease, making it suitable for use in applications such as telephone poles and railroad ties. Rabbits, squirrels, and ruffed grouse feed on the seeds from the 1.5-inch cones.

6 THE PUMP HOUSE The pump house in front of you distributes well water stored underground throughout PEEC. Behind it, a grassy mound serves as a storage area for water tanks. Located on the right is a water tank, and to the left is the septic system, known as Turkey Mounds.

The trail continues along the right of the mound.

7 WATER BARS You're about to descend a steep hill. Along the way, you will step on wooden beams—water bars—that resemble stairs. These beams control erosion. Without plants to secure the loose soil, erosion can occur quickly. The water bars help prevent significant trail erosion.

8 LE TREES If you look down the path, you can see several lesser trees (Acer) lining the trail. However, if you explore the woods, you will not find any. Why is that? Did some eccentric PEEC staff member decide to line the trail with fewer? No, let us require a lighter. In the woods, other trees shade out the young lesser trees. Plenty of light filters through the trail, allowing the lesser trees to grow.

9. Lichen: An organism with a symbiotic relationship between fungi and algae that benefits both parties. Algae, serving as phycobionts, utilize chlorophyll to harness energy from sunlight, while fungi, as mycobionts, protect against harsh conditions such as drought. Notice the lichen on trees and rocks; it indicates clean air, so breathe deeply!

10 WHITE PINE Observe the soft pines ahead. Identify this tree by examining the needle bundles, or fascicles. Each fascicle contains five needles, indicating that it is a white pine. Remember that "white" has five letters—a helpful hint! White pine (Pinus strobus) was named for its distinctive white sap and can grow up to 200 feet tall, providing valuable timber during colonial times. However, it faces two significant threats: the white pine weevil, which deforms young trees, and the severe fungal pest blister rust.

11 PILEATED WOODPECKERS Take note of the large holes in the trees on the right. What could have caused them? If you guessed a woodpecker, you are correct! The pileated woodpecker (Dryocopus pileatus), the largest woodpecker in North America, is responsible for creating these holes. Although we did not see the woodpecker, we can infer its presence due to the size and shape of the holes. Pileated woodpeckers, which are about the size of crows, have a distinctive red crest. They bore holes in trees to find carpenter ants, nest in the spring, or roost in the winter. They typically lay three to six eggs in May. Freshly made holes allow new sap to flow down the tree, while older ones show signs of scar tissue growth. The older the hole, the greater the amount of scar tissue present.

12 Chestnut Oaks vs. Hemlocks: Look to your right and left. What differences do you notice? To your left is a sunny, dry chestnut oak forest, while to your right is a cool, damp hemlock grove. Chestnut oaks (Quercus prinus) require well-drained soil and full sunlight, whereas eastern hemlock (Tsuga canadensis) thrives in moist, cool environments. The gorge is ideal for hemlocks.

Hemlocks enhance their habitat in two significant ways: their leaves cover traps moisture and block sunlight, thereby cooling the area. Additionally, their shallow root system, which spreads over a large surface area, allows them to thrive in just one to two inches of soil, making the gorge well-suited for their survival.

13 White Oaks. This area is poorly drained and fully exposed to sunlight, which prevents chestnut oaks and hemlocks from thriving. However, the conditions are suitable for white oaks (Quercus alba). White oaks have smooth-lobed leaves and thin, white bark. Their deep roots require several inches of soil to grow. Sweet when boiled, their acorns were a food source for Native Americans. Unlike red oaks, white oak acorns germinate in the fall but must be buried by squirrels to prevent freezing in the winter. Local white oaks in wet areas adapt by having wider trunk bases than their upper trunks.

14 CLIMAX FOREST Notice the rock wall beside the trail. Before becoming a National Recreation Area, this land was farmed, but the rocky terrain made that problematic. Rocks piled at the edges of the fields formed walls, often accompanied by old trees or boulders left by farmers. These trees provided shade without interfering with farming. Over time, rock walls became property boundaries. Fields gradually transformed into forests through succession, where more suitable plants dominate due to adaptations. Native grasses, wildflowers, and small shrubs initially took over, followed by light-loving trees such as white oak and shagbark hickory. The climax forest in this area is the American beech.

15 HEMLOCK RESOURCES The hemlock grove in this gorge has primarily retained its pre-European character, distinguishing it from most cleared forests in the eastern United States. The knotty wood produces low-grade lumber, and the steep gorges complicate and diminish the profitability of removal. Hemlock has one economic value: tannic acid found in the bark, which is used to tan animal hides, resulting in reddish-brown leather. Tannin from chestnut oak acorns is often added to lessen the redness.

16 LOOK DOWN! Look down at the stream. Notice the white waterfalls rushing over the rocks, caused by the mixing of air with the water. Downstream, the water becomes oxygenated. The deep, calm pools beneath the falls are perfect for trout. Insects such as dragonflies, fishflies, stoneflies, and caddisflies inhabit the streambed. These insects adapt to fast currents and blend in well—see if you can find them! Remember to return them to the water quickly, as they can only survive a few minutes without it.

17. Sedimentary Rock: Examine the rock face along the stream, which formed 370 million years ago during the Devonian period when this area was a shallow sea. Silt deposited on the seafloor compacted and lithified into the sedimentary rock visible today. During Africa's collision with North America around 230 million years ago in the Permian period, the eastern part of North America underwent orogeny, a mountain-building event. Since that time, the stream has carved the rock, revealing the current layers.

18 BLACK BIRCH Black birch (Betula lenta), also known as cherry birch, thrives in moist areas and is one of the few deciduous trees capable of growing in hemlock groves. Its large branches often reach from cliff edges to capture sunlight, adapting to the conditions of hemlock gorges. The dark bark features horizontal lines, or spiracles, which are characteristic of birch, cherry, and tamarack trees. Renowned for its dense and durable wood, black birch is frequently used in the manufacture of furniture. Its twigs and leaves yield wintergreen oil. The fermented sap is transformed into birch beer, a popular beverage. Pennsylvania's state bird, the ruffed grouse (Bonasa umbellus), feeds on the buds and seeds, while the white-tailed deer (Odocoileus virginianus) and eastern cottontail rabbits (Sylvilagus floridanus) consume the twigs.

19 EASTERN HEMLOCKS Eastern Hemlocks (Tsuga canadensis) are native to North America but currently face a serious threat to their survival. A tiny invasive insect, the hemlock woolly adelgid (Adelgis tsugae), attaches itself to the base of the needles and extracts fluids from them. The needles turn brown and eventually fall off. Within a few years, the hemlock tree succumbs due to a lack of nutrients necessary for the needles. Hemlock groves across the country have been significantly damaged or destroyed. Research is underway to introduce the woolly adelgid's natural predator to help manage its population.

20 GROUNDWATER Water flows from this spring year-round. Rock layers block groundwater flow, pushing it to the surface. This constant supply of water nourishes small green plants and aquatic insects, which should be returned to the water promptly if found.

21 STREAMS: Check the gully ahead. Is there any water? This seasonal stream flows vigorously in the spring due to melting snow and rain, making the small bridge essential. In summer and fall, decreased rainfall reduces it to a trickle or puddles, and it completely dries up during droughts.

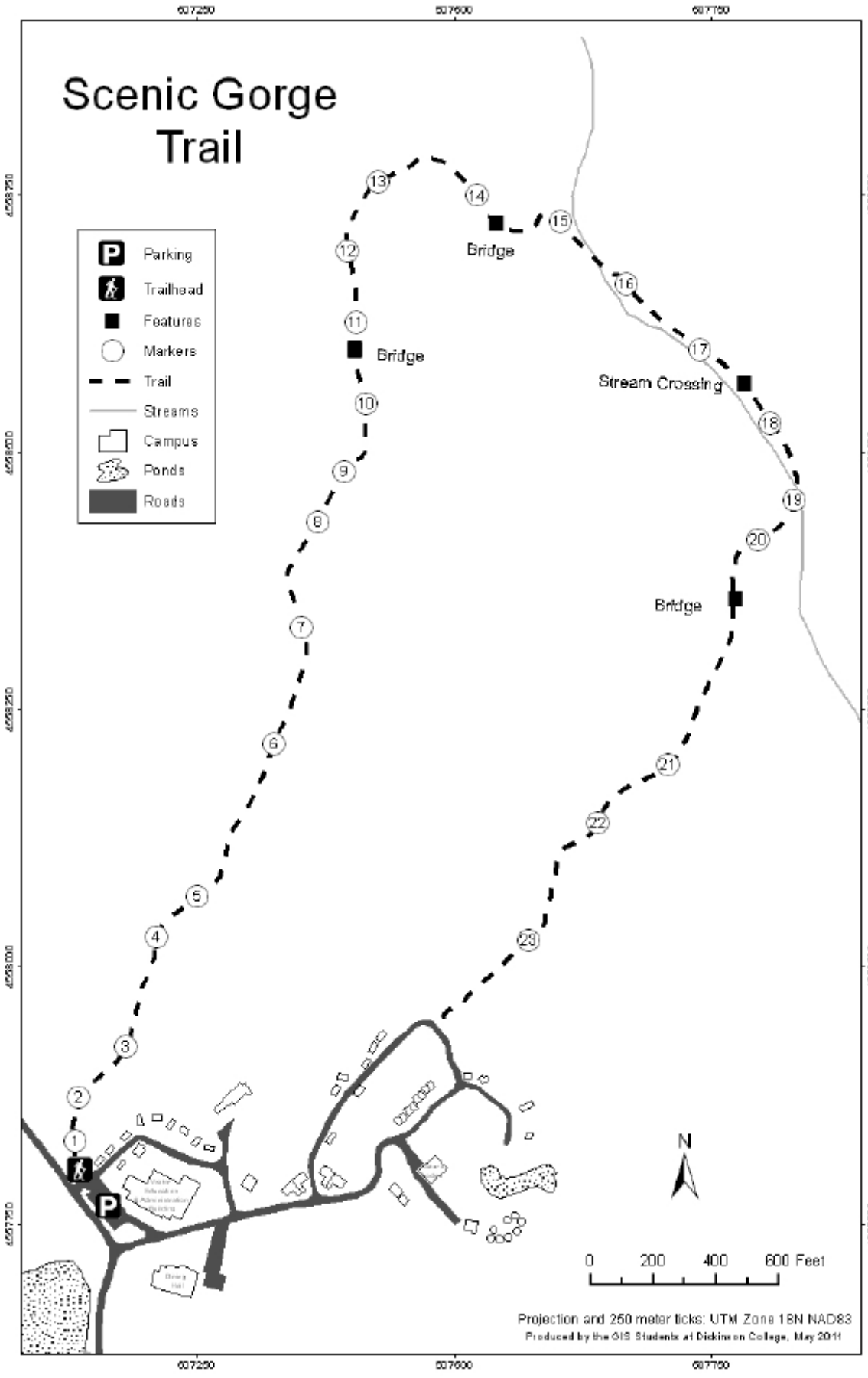
22 AMERICAN BEECH American beech (Fagus grandifolia) is appreciated for its smooth, gray bark that resembles elephant skin. Its leaves turn golden brown in the fall and drop off in the spring. This happens because beeches and oaks evolved in a tropical climate during the last ice age. As glaciers receded, these trees migrated north; their leaves die to ensure survival through winter but are replaced by new growth before they fall.

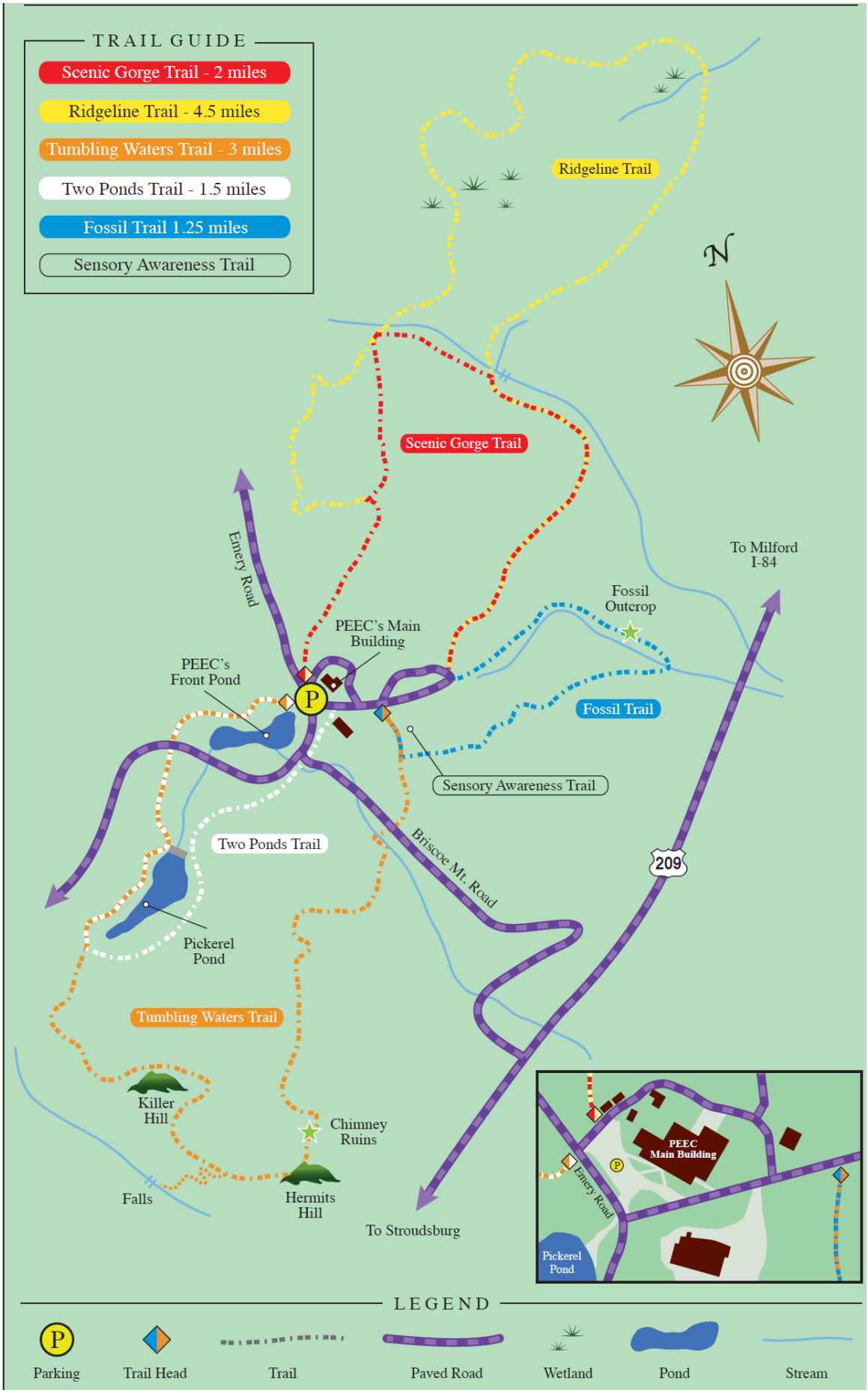
23 CHESTNUT OAKS Chestnut oaks (Quercus prinus) dominate this area, recognizable by their multi-lobed, smooth-edged leaves and square, grooved bark. Look for acorns on the ground; like all oaks, chestnut oaks shed them in the fall. Their acorns are multi-colored, ranging from red to green, and sprout immediately, allowing them to grow before competing with saplings. In the U.S., well-drained ridgetops are characterized by climax forests of chestnut oaks. Before the chestnut blight, the American chestnut (Castanea dentata) was the dominant tree species, but the disease wiped out three-quarters of its population.

24 TURKEY MOUND The grass mounds visible through the trees on the left are artificial. White pipes protrude from the sides. Made of sand, the mound filters sewage since the rocky soil is unclean. It is called a turkey mound because wild turkeys (Meleagris gallopavo) often search for food on top.

25 STAGHORN SUMACS Do not touch this tree! It has poison ivy that can cause an itchy rash. Across the street is staghorn sumac (Rhus typhina), which is unrelated to poison sumac and safe to touch. Notice the fuzzy, V-shaped stems that resemble a male deer's antlers, hence the name "staghorn." The large leaves turn bright red and fall in autumn. Clusters of small red berries remain on the twigs throughout winter, providing food for birds when other sources are scarce.

This is the final marker. Continue right up the road and follow it back to the main building. We hope you enjoyed the trail. Feel free to ask PEEC staff any questions.


Scenic Gorge Trail
Parking
Trailhead
Features
Markers
Trail
Streams
Campus
Ponds
Roads
Bridge
Bridge
Stream Crossing
Bridge
N
0 200 400 600 Feet
Projection and 250 meter ticks: UTM Zone 18N NAD83
Produced by the GIS Students at Dickinson College, May 2011

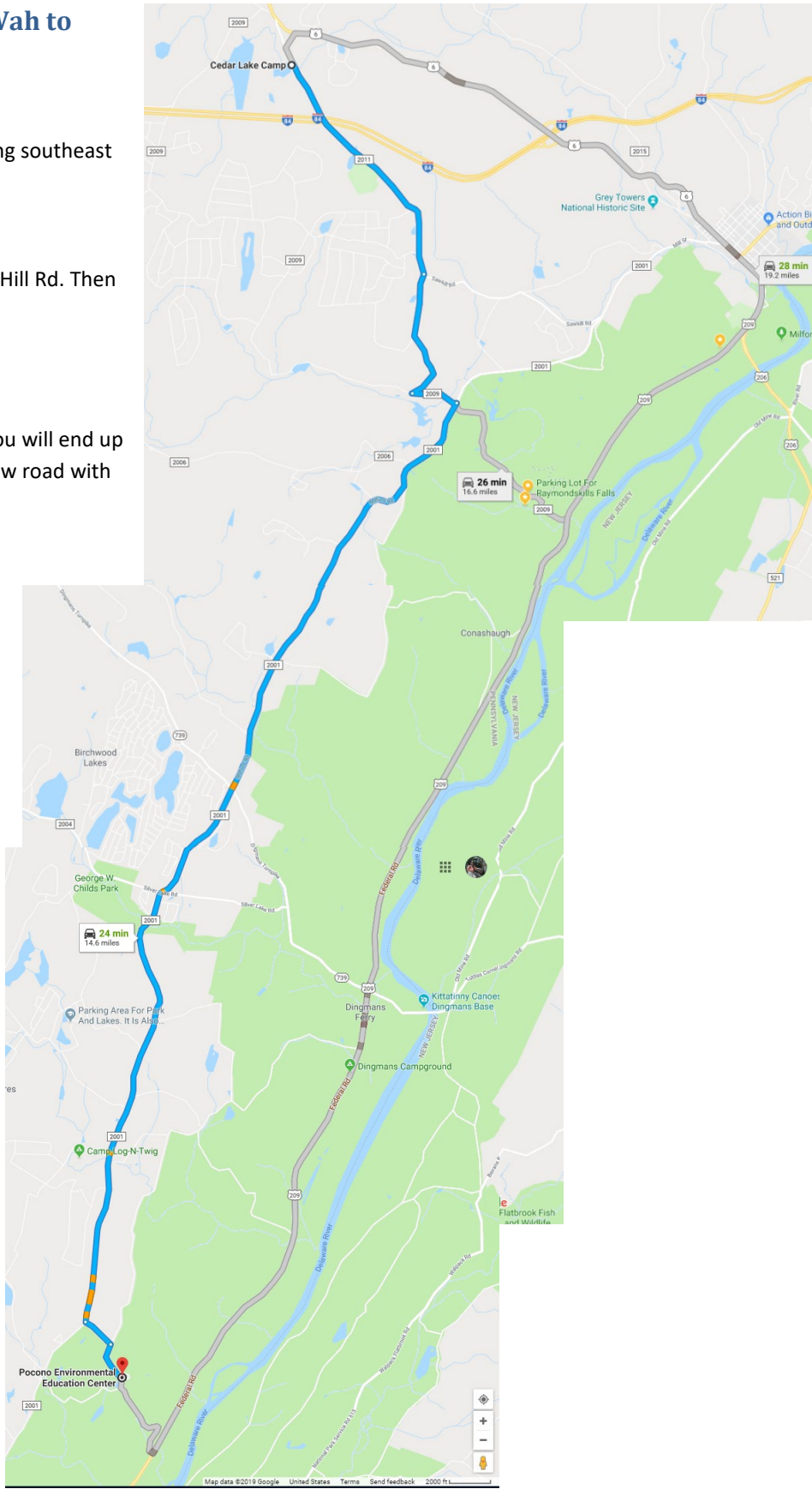

TRAIL GUIDE
Scenic Gorge Trail - 2 miles
Ridgeline Trail - 4.5 miles
Tumbling Waters Trail - 3 miles
Two Ponds Trail - 1.5 miles
Fossil Trail 1.25 miles
Sensory Awareness Trail
N
Ridgeline Trail
Scenic Gorge Trail
Emery Road
To Milford
I-84
Fossil
Outcrop
PEEC's Main
Building
PEEC's
Front Pond
P
Fossil Trail
Sensory Awareness Trail
Two Ponds Trail
Briscoe Mt. Road
209
Pickerel
Pond
Tumbling Waters Trail
Killer
Hill
Chimney
Ruins
Falls
Hermits
Hill
To Stroudsburg
PEEC
Main Building
Emery Road
Pickerel
Pond
LEGEND
Parking
Trail Head
Trail
Paved Road
Wetland
Pond
Stream

Driving directions from Camp Nah-Jee-Wah to PEEC

: https://maps.app.goo.gl/nwi5eARcd4ZwdHEN7

1. Start heading out of camp and turn right, going southeast on Sawkill Rd. toward Honeywell Rd.
    a. Then 2.35 miles, 2.35 total miles
2. Turn right onto Kiesel Rd.
    a. Kiesel Rd is 0.1 miles past Vanauken Hill Rd. Then 1.26 miles, 3.60 total miles
3. Turn left onto Raymondskill Rd.
    a. Then 0.44 miles, 4.04 total miles
4. Turn right onto Route 2001/SR2001.
    a. Be careful not to miss this turn, or you will end up heading downhill on a winding narrow road with little chance of turning around.
    b. Then 1.83 miles, 5.88 total miles
5. Route 2001/SR 2001 becomes Milford Road.
    a. Then 7.99 miles, 13.87 total miles
6. Turn left onto Thurner Rd.
    a. Then 0.32 miles, 14.18 total miles
7. Turn right onto Emery Rd.
    a. Then 0.40 miles, 14.58 total miles
8. Arrive at Pocono Environmental Education Center, 538 EMERY RD.
    a. If you reach Brisco Mountain Rd going downhill, you have gone a little too far.

26MIN 14.6MI Total



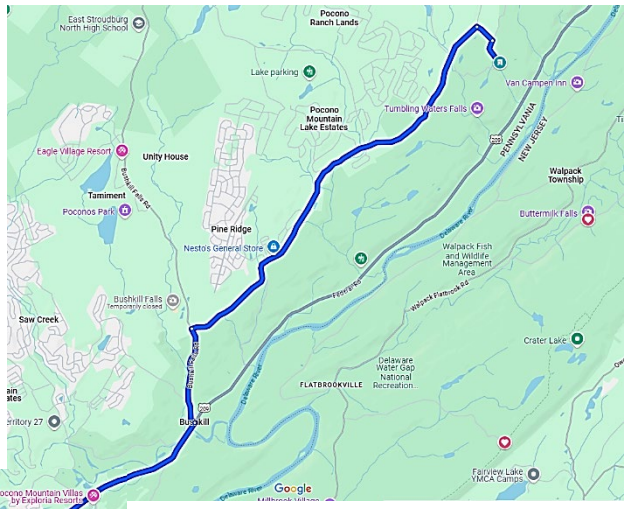
Emergency Phone Numbers:

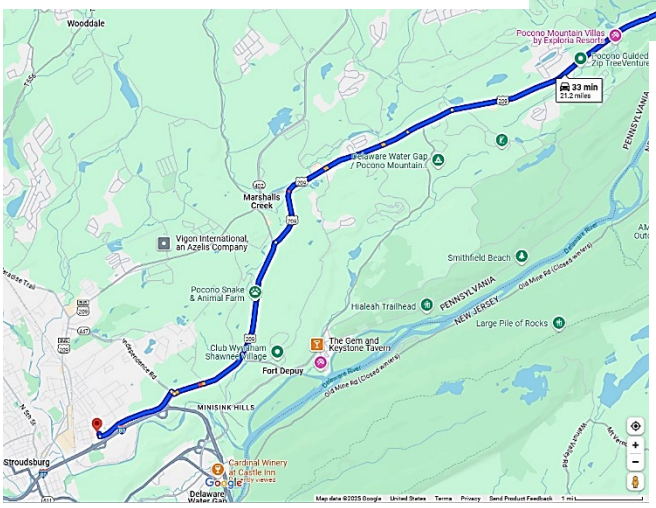
Pocono Environmental Education Center 570-828-2319
The Delaware Water Gap of the National Park Service:
http://www.nps.gov/dewa
Call Park Dispatch at (570) 426-2435 or (800) 543-4295 for emergencies.

The nearest level III trauma center for an urgent situation is the

Lehigh Valley Hospital - Pocono Medical Center

206 E Brown St, East Stroudsburg, PA 18301
(570) 421-4000 General Switchboard
Emergency Services (Mattioli Emergency Center) 570-476-3353





from Pocono Environmental Education Center, 5...
to 206 E Brown St, East Stroudsburg, PA 18301

via Milford Rd and US-209 S
Fastest route, the usual traffic

Pocono Environmental Education Center
538 Emery Rd, Dingmans Ferry, PA 18328

- Take Milford Rd to US-209 S — 14 min (8.8 mi)
- Head west on Campus Dr toward Emery Rd — 43 ft
- Turn right onto Emery Rd — 0.4 mi
- Turn left onto Thurner Rd — 0.3 mi
- Turn left onto Milford Rd — 6.7 mi
- Turn left onto Bushkill Falls Rd — 1.5 mi
- Continue on US-209 S to East Stroudsburg. Take exit 308 from I-80 W/US-209 S — 19 min (12.5 mi)
- Turn right onto US-209 S — Pass by Taco Bell (on the left in 5.6 mi) — 8.0 mi
- At the traffic circle, take the 2nd exit onto US-209 — 3.2 mi
- Use the right lane to merge onto I-80 W/US-209 S via the ramp to Stroudsburg — 1.1 mi
- Take exit 308 toward East Stroudsburg — 0.2 mi
- Continue on Prospect St to your destination — 2 min (0.3 mi)
- Turn right onto Prospect St — 0.1 mi
- Turn right onto E Brown St — 0.1 mi
- Turn left — Destination will be on the left — 246 ft

206 E Brown St
East Stroudsburg, PA 18301