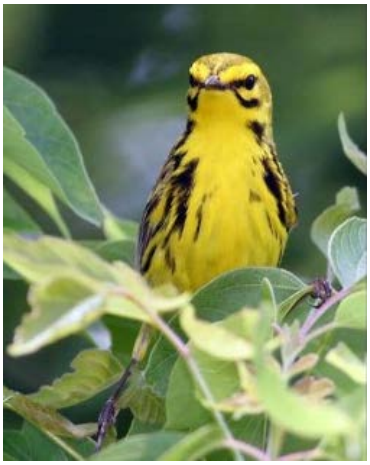
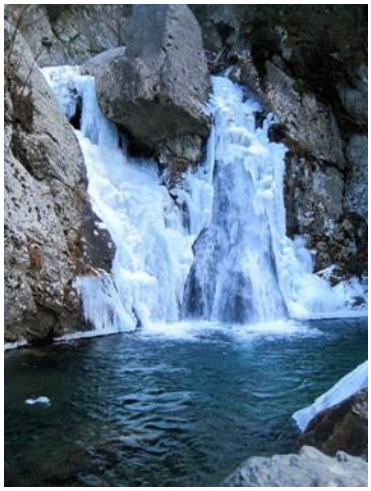
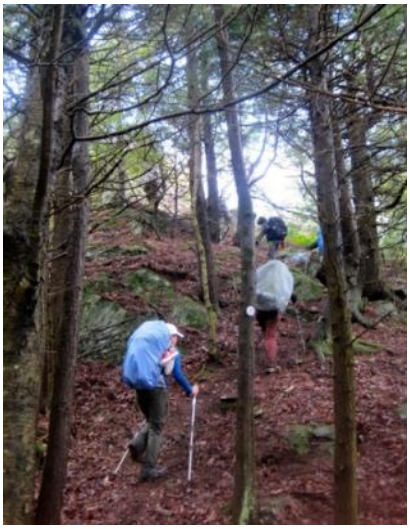
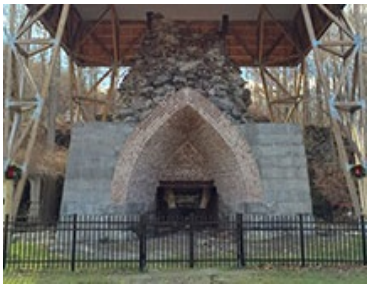
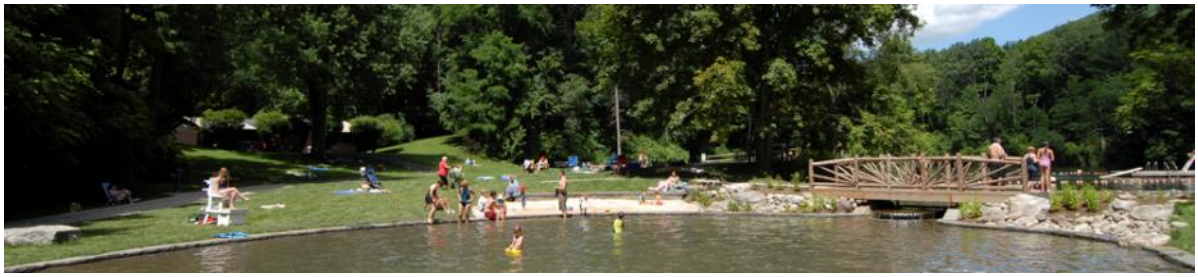
# Taconic State Park Master Plan

**Columbia and Dutchess Counties**
**Towns of Copake, Ancram, and Northeast, NY**

# Environmental Impact Statement

**June 27, 2018**



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Parks, Recreation and Historic Preservation

# Acknowledgements

The Taconic State Park Master Plan and Final Environmental Impact Statement are the result of a cooperative effort by many persons. The Office of Parks, Recreation and Historic Preservation acknowledges the time and effort of everyone who participated in the development of these documents.

In a cooperative effort, the Agency worked with and coordinated input from the following agencies and organizations: New York State Department of Environmental Conservation, the Friends of Taconic State Park, New York Natural Heritage Program, New York – New Jersey Trail Conference, and many other organizations.

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# SEQR
# NOTICE OF COMPLETION OF A FEIS

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|---|---|
| **Date of Notice:** | June 27, 2018 |
| **Lead Agency:** | New York State Office of Parks, Recreation and Historic Preservation (OPRHP) |
| **Title of Action:** | **Adoption and Implementation of a Master Plan for Taconic State Park** |
| **SEQR Status:** | Type I |
| **Location of Action:** | Taconic State Park is located in the Towns of Copake and Ancram in Columbia County, NY, and Town of Northeast in Dutchess County, NY. |

This Notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law. A Final Master Plan and Final Environmental Impact Statement (FEIS) on the proposed action has been prepared and accepted by OPRHP. The Final Master Plan and FEIS describe the proposed action, the environmental setting, alternatives and potential environmental impacts and mitigation, and the agency's responses to comments on the Draft Plan/DEIS.

Agencies and the public are afforded the opportunity to consider the FEIS. This consideration period ends on Monday, July 9, 2018. Copies of the Final Master Plan/FEIS are available for review at the Taconic State Park office; at the offices of the agency contacts; and the Roeliff Jansen Community Library, 9091 Route 22, Hillsdale, NY 12529, and NorthEast – Millerton Public Library, 75 Main Street, Millerton, New York 12546. The online version of the Master Plan and FEIS are available at the following publicly accessible website: http://www.nysparks.state.ny.us/inside-our-agency/master-plans.aspx.

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# Abbreviations and Acronyms Used

| | |
|---|---|
| ADA | Americans with Disabilities Act |
| ALB | Asian Long-horned Beetle |
| BCA | Bird Conservation Area |
| DEC | New York State Department of Environmental Conservation |
| DHP | Division of Historic Preservation of OPRHP |
| DOT | New York State Department of Transportation |
| EAB | Emerald Ash Borer |
| EAWPP | Emergency Action Written Preparedness Plan |
| EIS | Environmental Impact Statement |
| EMB | Environmental Management Bureau of OPRHP |
| EPA | US Environmental Protection Agency |
| ESP | Division of Environmental Stewardship and Planning of OPRHP |
| FEIS | Final Environmental Impact Statement |
| HREP | Hudson River Estuary Program |
| HVRT | Harlem Valley Rail Trail |
| HWA | Hemlock Wooly Adelgid |
| MGS | Management Guidance Summary |
| NHA | Natural Heritage Area |
| NYNHP | New York Natural Heritage Program |
| NWI | National Wetlands Inventory |
| NYNJTC | New York – New Jersey Trail Conference |
| NYS | New York State |
| OPRHP | Office of Parks, Recreation and Historic Preservation |
| PPA | Park Preservation Area |
| RV | Recreational Vehicle |
| SBA | Significant Biodiversity Area |
| SGCN | Species of Greatest Conservation Need |
| SEQR(A) | State Environmental Quality Review (Act) |
| SPB | Southern Pine Beetle |
| TNC | The Nature Conservancy |
| TSP | Taconic State Park |
| USFWS | United States Fish and Wildlife Service |
| VUF | Vehicle Use Fee |

# Executive Summary

## Introduction

### Planning and Environmental Review

The environmental review of proposed master plans for state park facilities is conducted in accordance with the State Environmental Quality Review Act (SEQR). Under SEQR, agencies consider environmental impacts along with social and economic factors early in the decision-making and planning/project design process. Comprehensive land use or resource management plans are considered Type I actions under SEQR, that is, they are likely to have a significant impact on the environment and, therefore, require preparation of an Environmental Impact Statement (EIS). OPRHP fully integrates the planning and environmental review processes.

### Guiding Principles and Policies

Overarching OPRHP program principles, policies, and goals and objectives provide a foundation for planning, development, operation, and management decisions made during the master plan process. The following sections summarize current directives considered throughout the planning process for Taconic State Park.

The OPRHP planning process adheres to three basic principles:

Planning must be coordinated and provide for public participation: cooperation among appropriate government organizations, the public at large, special interest groups and the private sector is not only desirable but necessary.

Planning is a continuous process: assumptions for the classification and management of park resources must be constantly reevaluated in light of new information, changing needs and priorities, and resource character.

Planning must be comprehensive: the information base, and additional pertinent research, should support the planning process and should encompass relevant social, economic and physical factors relating to the management and operation of the park and its resources.

OPRHP has developed a number of agency-wide policies to address management issues commonly faced by the park system. Policies cover topics such as the management of trees and other vegetation, pesticide use, wildfire and controlled burns, oil, gas and mineral rights, wildlife management, and native plants. Please visit our website to view our agency policies – www.nysparks.com/inside-our-agency/public-documents.aspx.

## Location and Access

Taconic State Park (TSP) is located along 16 miles of the Taconic Mountain Range in eastern Columbia and Dutchess Counties. From north to south, portions of the Park are within the towns of Copake and Ancram of Columbia County, and the town of Northeast, Dutchess County. Along its eastern border, the Park is adjacent to the Towns of Egremont, MA and Salisbury, CT.

The Park has two developed areas – Copake Falls and Rudd Pond. The Copake Falls area is accessible from Rt. 344 in the Village of Copake Falls, NY. The Rudd Pond area is along Rudd Drive, off of Rudd Pond Road/ Rt. 62 in the Village of Millerton, NY.

## Park Boundaries

The boundaries of the park are depicted in Figure 1.

## Adjacent Land Uses

The Park's surrounding land uses are dominated by agriculture on the New York side in the west, and by forestland protected for public recreational use along its eastern border in Massachusetts and for private recreation in Connecticut. (Figure 2)

## Recreational Needs Assessment

The master plan identifies Dutchess, Kings, Nassau, New York, Suffolk, Queens, and Westchester counties in New York as the main service area of the Park. The service area was defined based on New York State data only. However, nearly a quarter of the visitors reside in other states or in Canada. In the seven-county service area recreational needs that equal or exceed the New York State average are biking, snowmobiling, walking/jogging, day use, boating, camping, skiing, field games, fishing, golfing, and swimming.

## Economic Contribution

According to a 2009 study prepared for Parks & Trails New York, the combination of annual residents and visitors spending in the Taconic Region, which includes TSP, supports an estimated $102 million in annual economic output and business sales, and creates 957 jobs. In fiscal year 2008-9, TSP accounted for 5% of the region's attendance. It is reasonable to assume that TSP contributed 5% of the economic impact. This equates to the Park contributing $5.4 million in sales and 51 jobs. The Park contributes to the economy and value of adjacent lands in MA and CT as well.

## Designations and Partnerships

TSP in full or in part is included in numerous state, regional, or national designations due to its outstanding natural and cultural resources. These designations do not impose legal limitations on Agency action. A full list is provided in Chapter One of this document. Among the designations is the Copake Iron Works Historic District within the Park, listed on the New York State and National Registers of Historic Places and designated a Hudson River Valley National Heritage Area Site.

TSP's major partners are listed in Chapter One of this document.

## Legal Considerations

The Park manages sections of the Harlem Valley Rail Trail for recreation. The Park partners with Massachusetts for rescue at Bash Bish Falls, and for coordinated efforts to manage visitors, parking, etc. Catamount Ski Area leases land from TSP, and the northern terminus of the South Taconic Trail traverses the Catamount Ski Area on the NY and MA sides.

## Programs

**Land and Water Conservation Fund.** The Park has received funding from the National Park Services' Land and Water Conservation Fund. Acceptance of this federal funding includes a requirement that these facilities remain in public outdoor recreational use in perpetuity. Any proposals for uses other than public outdoor recreation require the prior approval of the National Park Service to lift the use restriction through a process known as "conversion."

Please visit the following website for more information: www.nps.gov/ncrc/programs/lwcf/manual/lwcf.pdf.

## Natural Resources

The information below provides a brief introduction to the existing conditions in the Park. For a more complete description of the environmental setting, please refer to Chapter One of this document.

### Physical Resources

**Geology and Topography**. Taconic State Park spans over the westernmost edge of the Southern Taconic Mountains, part of the Appalachian Mountain Range, and the adjacent Harlem Valley. Everett Schist today underlies much of the Southern Taconics, while the dominant bedrock in the valleys is the Stockbridge Marble. Topping the bedrock is a mantle of glacial debris left by the melting of the Wisconsin ice sheet approximately 15,000 years ago. Eons of erosion in the area resulted in a valley and ridge topography oriented mostly north-south. The erosion resistant rocks of the South Taconic Mountains form ridges parallel to the valleys and rising as much as fifteen hundred feet above the valleys.

**Soils**. The soils at both areas in the park are mainly Macomber-Taconic series derived from the parent glacial till. These soils present some restrictions to development.

**Water Resources**. The Park's dominant watershed is the Roeliff Jansen Kill watershed – a significant tributary to the Hudson River.

Streams. All streams at Taconic State Park are classified "C" by the Department of Environmental Conservation (DEC) suitable for fishing and boating, and most of the streams are designated as trout waters C(T) or suitable for trout spawning C(TS). The most prominent stream is Bash Bish Brook. Its famous waterfall, Bash Bish Falls, is just over the NY-MA state line.

Ponds. Rudd Pond is the largest water body in Taconic State Park, created by damming a wetland. Three small but deep ponds, Iron Mine Pond, Weed Mines Pond, and Ore Pit Pond, were originally dug as iron pits. Rudd Pond and Ore Pit Pond provide guarded swimming and boating. Swimming is not allowed in any other ponds at the Park.

Wetlands. The majority of TSP is located within the Harlem Valley Calcareous Wetlands Complex, a Significant Biodiversity Area identified by DEC. The Park contains two fens, aka calcareous wetlands. One is Mt. Riga Fen, a good occurrence of a rare medium fen, grading into a shrub fen and red maple swamp (Evans et al, 2001 and 2004).

### Ecological Communities, Flora, and Fauna

The unique calcareous bedrock geology and ridgeline and valley topography add significantly to the biodiversity of the Park. NYNHP has identified 25 ecological community types in TSP (Edinger et al, 2014). Over 90% of the park is in natural cover types, predominantly forest. Nine of the natural community types, covering most of Taconic State Park, are considered ecologically significant from a statewide perspective (Figure 9). A diverse flora and fauna are supported by the Park's habitats; for example, over 200 plant species and nearly 300 animal species (from insects to birds and mammals) were documented in a one-day Bioblitz (see Appendix B of the accompanying EIS for lists). Nine plant- and two animal species listed as rare, threatened or endangered in NY State have been documented in the Park to date by NYNHP. Further surveys are warranted.

At least twenty-three terrestrial and four aquatic non-native invasive plants have been documented in the Park. Three destructive, invasive forest pests are either in the park or have a high potential to occur in the park (Hemlock Wooly Adelgid, Emerald Ash Borer and Asian Long-horned Beetle). The invasive aquatic Chinese Mystery Snail has been identified in Weed Mines Pond.

## Cultural Resources

Archeologists estimate that Mohican and pre-Mohican people lived in today's Columbia County, and native Lenape people thrived in today's Dutchess for about 10,000 years. From the early 1600s, European settlers entered into economic and military agreements with Native American tribes. They got swept up in the wars Europeans waged for access to the fur trade and land, and their numbers plummeted, further exacerbated by losses from intertribal conflicts.

The Copake Iron Works was established in 1845 along the Bash Bish Brook at the base of the Taconic Ridge. In 1903 the foundry fell silent, and Copake Plow Works took over. In 1926 the State of New York purchased the land and remaining structures. In 2007, the Copake Iron Works and 18 surrounding acres were listed on the New York State and National Registers of Historic Places, then in 2016 designated as a Hudson River Valley National Heritage Area Site. The New York and Harlem Railroads opened a line through Copake in 1852. After the railroads became abandoned in 1972, the Harlem Division track began its transformation to the Harlem Valley Rail Trail. Several completed sections today serve as picturesque trails for public recreation.

Among the many visitors who came to Copake Falls to enjoy the first-rate recreational opportunities of the Taconics was Mr. Francis Masters. In 1904, he built his own fishing lodge, and soon after Mr. and Mrs. Masters established High Valley Farm. The Masters family has played a critical role in the history of Taconic State Park since its inception.

## Scenic Resources

Taconic State Park is home to a multitude of significant scenic vistas into the Hudson River Valley and beyond to the Catskill Mountains and to the Taconic Mountains in CT and MA. The South Taconic Trail in

particular is rich in scenic outlooks and summits. The landscape of TSP itself dominates the view-shed of the Harlem Valley Rail Trail, a paved recreational trail that traverses the Park in several locations. TSP provides access to Bash Bish Falls in MA, the highest single-drop waterfall in MA, by a moderate 0.75-mile trail. TSP's scenic qualities represent a defining feature of the Park.

## Recreational Resources/Activities

Recreational resources at the park include recreational trails, swimming, camping, fishing, picnicking, picnic pavilions, boating, hunting, paragliding, and ice fishing. Rudd Pond and Ore Pit Pond provide guarded swimming and boating. Swimming is not allowed in any other ponds at the Park. The trails are open year-round and accommodate hiking, bicycling, snowshoeing, and cross-country skiing. The Harlem Valley Rail Trail intersects the Park in several locations, providing additional biking, hiking, running, snowshoeing, and cross-country skiing opportunities. The Park offers interpretive and environmental educational programs that occur throughout the Park as well as in the form of interpretive signage on some of the trails. The Park has playgrounds at its Copake Falls and Rudd Pond locations.

## Operations and Maintenance Overview

The Park has a written Emergency Action Preparedness Plan, which is posted in all staffed buildings. The emergency action plan details Park staff roles and responsibilities, evacuations and responses to emergencies. Park Police and other local enforcement respond to emergencies. Ambulance squads from neighboring towns respond to medical emergencies.

Buildings and infrastructure are maintained by Park and regional maintenance crews.

The water supply for Taconic State Park is provided by three well pump houses and one surface water pump house. The campground well pump house pumps from 2 wells, chlorinates and pumps up to 40,000 gallons of water into an in-ground storage reservoir for gravity feed to most of the Park: campground, day use area, Park office, Ore Pit bath house and Ironworkers cabins. The Bash Bish well pump house pumps and chlorinates from 1 well and serves five Bash Bish cabins and the Bash Bish shower house. The Greenwich Area well pump house serves and chlorinates 6 cottages. The Ironworkers Surface Water Pump House chlorinates and serves a Park residence and maintenance shop. A Certified NYSDOH Grade C operator is required on staff. There are currently 3 certified operators in the Park.

Taconic State Park does not have any wastewater treatment plants. There are multiple leach fields in the Park and one cesspool currently set for fall 2018 replacement to modern septic field. The full list of septic fields in the Park is provided in Chapter One of the accompanying EIS.

Taconic State Park is open year-round, conditions permitting. The campground at Copake Falls is open seasonally from May through last weekend in November, and the Rudd Pond campground is open from Memorial Day through Labor Day. The winterized Greenwich Cabins, a short drive to local Catamount and other local ski resorts, are open year-round. The Ironworkers & Bash Bish Cabins are open from the first Friday in May through the last weekend in October.

## Agency Mission and Taconic State Park Vision Statement

### Agency Mission Statement

The mission of Office of Parks, Recreation and Historic Preservation (OPRHP) is to provide safe and enjoyable recreational and interpretive opportunities for all New York State residents and visitors and to be responsible stewards of our valuable natural, historic and cultural resources.

### Taconic State Park Vision Statement

**Introduction.** Taconic State Park was the first park created in NYS Parks' Taconic Region, and reflects its age in stately mountains and forests, and verdant fields. Nestled along the Taconic Mountains, the Park straddles long and narrow stretches of ridgelines, woods and meadows from its large center in Copake Falls to its smaller satellite to the south, Rudd Pond. The Park runs parallel to the Massachusetts and Connecticut state borders from Hillsdale, NY at the northern end to Millerton at the southern end. Historically, Taconic State Park is the entryway to the scenic Bash Bish Falls, just over the state line in Massachusetts. The 19th century Copake Iron Works, listed on the New York State and National

Registers of Historic Places and designated a Hudson River Valley National Heritage Area Site, preserved, stabilized, and open year-round to visitors, is located within the Park.

**Vision.** As the first park of the Taconic Region, the vision of Taconic State Park is to remain a premier destination for the public's enjoyment: to provide recreational opportunities, engage visitors about the environmental, historic, and cultural resources of the Park, and to be a place of inspiration and wonder at nature's splendor. It is the Park's vision to be a steward to protect and to enhance its natural habitats and species, and to remain available to the public for future generations.

***The Park will accomplish this vision as follows:***

- Maintain and enhance the Park's biodiversity and existing natural communities. Protect rare and endangered plants and animals and control invasive species in the Park.
- Maintain and enhance recreational activities at the Park, and enhance the trail system to support the Park's recreational opportunities and to safeguard the habitats through which the trails run. Explore connections to other long-distance trails, such as the Harlem Valley Rail Trail which runs through the Park.
- Implement sustainable practices in the Park's facilities, infrastructure and operations, and strive to use renewable resources.
- Continue to preserve, interpret, and brand the Copake Iron Works Historic District, listed in the New York State and National Registers of Historic Places.
- Expand educational programming in the Park on environmental and historic themes.
- Collaborate with other New York State agencies, landowners, and other like-minded organizations, as well as with the Commonwealth of Massachusetts and State of Connecticut, to build on the tri-state vision for the Park and to further protect the resiliency of the Park's natural, cultural and recreational assets.

## Development of Alternatives

This chapter contains an analysis of the alternatives being considered and is divided into three parts - natural and cultural resource protection, recreational resource development, and operations and maintenance. The alternatives and preferred alternative for each plan element are described in narrative form. The initiation and implementation of each preferred alternative will be determined by the level of funding available to OPRHP in future years. A complete description of the plan that results from the preferred alternatives is found in the master plan document. The master plan includes a proposed implementation timeline that will be reviewed annually.

### Strategies for Natural and Cultural Resource Protection

**Bird Conservation Area (BCA).** A BCA will be created to include the entire Park.

**Natural Heritage Area (NHA)**. An NHA will be created to include the entire Park.

**Invasives Management Plan**. A comprehensive invasives management plan will be developed, including early detection and rapid response, following recommendations of OPRHP staff and biologists. Invasives control efforts will be coordinated with neighboring MA and CT.

**Rudd Pond Management**. The Park will continue its current management of aquatic plants and will also explore emerging alternatives to manage aquatic plants so it can maintain guarded swimming and boating opportunities.

### Strategies for Recreational Resource Development

**Copake Falls Day Use Area.** The day use area will be improved to provide numerous recreational opportunities for both day use and overnight visitors, pending available funding. The Park will generate an overall site plan, analyzing the recreational needs of day users, providing new courts and play fields, providing a new group fire ring, and expanding the existing playground to include a tot lot. Guarded

swimming in Ore Pit Pond will continue. This pond is exempt from ADA compliance due to its physical characteristics.

**Rudd Pond Day Use Area.** The upgraded recreational opportunities will benefit both day users and campers. The biggest changes are the much-needed facility improvements, including a new picnic pavilion with comfort station, pending available funding, and possible alternatives to continue guarded swimming at Rudd Pond. Rudd Pond will also provide playground equipment for the 3- to 6-year age group.

**Iron Workers Cabins, Bash Bish Cabins, and Greenwich Cottages.** The Park is committed to preserving its historic cabins and providing comfortable accommodations to patrons. These improvements will also create opportunities for programmatic expansion at the Park. The Iron Workers Cabins will be improved one at a time: one duplex will be renovated first and made ADA compliant, followed by the triplex, and finally by the second duplex. The current Greenwich storage building will be converted into a multipurpose Event Hall suitable for group rentals, and the original caretaker's cottage will be repurposed to house interns. Implementation will occur pending available funding.

**Copake Iron Works Historic District.** The Park will continue to protect and improve the Copake Iron Works Historic District, listed on the New York State and National Registers of Historic Places and among Hudson River Valley National Heritage Area Sites, in cooperation with OPRHP's Division of Historic Preservation and the Friends of Taconic State Park. OPRHP also plans to develop a new maintenance area, pending available funding, which will remove storage and maintenance activities from the current location in a historic building.

**Camping.** A new tent camping loop will be built at Copake Falls, including ADA compliant campsites, north of the current camping loops, pending available funding. This will spread out the same number of campsites over a larger area and decrease density. The new loop will have new camping infrastructure, including a shower house. At Rudd Pond, the campground shower house and auxiliary bathroom will receive an upgrade, pending available funding, and the tent sites will be staggered to provide more privacy and improve visitor experience. The Park will also designate off-season group campsites at Copake Falls and Rudd Pond, and will provide backcountry camping along the South Taconic Trail, pending available funding.

**Trail System.** Several trails will be removed or relocated to more sustainable routes. Some new trails will be installed to replace undesignated or unsustainable trails. New trails will be created for better access to the South Taconic Trail. Activities on the trails will include hiking, biking, snowshoeing, cross country skiing, and running. Many trailhead parking areas will be enlarged, relocated, or formalized. For a full discussion, see the Trails Plan of the EIS (Appendix A).

**Fishing, Hunting, and Paragliding**. The Park will provide additional fishing access to Roeliff Jansen Kill near the junction of Orphan Farm Rd and Rt. 22 on a property owned by OPRHP and managed by the Park. TSP will explore the viability of fishing at the Odyssey Farm Pond and the development of an ADA fishing site there. Changes to Park hunting rules being considered include adding shotgun hunting for turkey during spring and fall seasons in specific areas of the Park and expanding fall turkey hunting to sunrise to sunset in same areas; allowing black bear hunting as appropriate; and designating an area for small game hunting in a manner that allows for monitoring impacts to New England cottontail. Current arrangements for paragliding, allowed only with permit issued by the park, will remain unchanged.

## Strategies for Operations and Facility Resources

### Sustainability

Sustainability is an approach about ways to improve, operate and maintain state parks and historic sites, while at the same time minimizing or reducing impacts on the environment.

Sustainability looks at the whole rather than the individual parts to maximize energy efficiency and minimize environmental impact, reduce use of fossil fuels, reduce or eliminate hazardous substances, protect biodiversity and ecosystems, and use resources carefully, respectfully and efficiently to meet current needs without compromising the needs of other living creatures and the use of those resources by future generations.

OPRHP is committed to reducing its impact on the environment and to becoming more carbon neutral by adopting more sustainable practices in park development, improvement, operation and maintenance. Sustainable practices and alternatives were considered in the planning process and incorporated throughout the master plan.

**Structures in the Park**

Two structures at Copake Falls that are unused will be renovated, pending available funding: the old Greenwich Cottage caretaker's residence will be re-purposed to house interns and the Nature Center will be cleaned up with the help of Excelsior Corps and Friends Taconic State Park to offer interpretive programming. At Rudd Pond, two structures will be repurposed: the bath house will be remodeled as picnic pavilion and comfort station, and the current comfort station in day use area will become the staff work station. Implementation will occur pending available funding. After these Rudd Pond improvements, the staff trailer will be removed.

**Comfort Stations**

Taconic State Park will upgrade its existing outdated comfort stations throughout the Park, pending available funding, in coordination and with approval from the Division of Historic Preservation where appropriate. This includes comfort stations in campground loops, the Ore Pit Pond bath house, and the Bash Bish shower house with restrooms. The Park will also construct a new campground shower house in the new camping loop. The Rudd Pond bath house will be remodeled to include a new comfort station, and the Rudd Pond campground shower house and auxiliary bathroom will be upgraded.

All comfort stations will comply with current building codes and ADA standards at the time of renovation or construction.

## Identification of the Preferred Alternative

The two alternatives considered are the Status Quo and the master plan. The preferred alternative is the master plan alternative as described in the accompanying document, the master plan.

***Rationale for Selection***

The Park no longer meets the needs of OPRHP nor the recreational demands of the population within its service area. A new vision and goals for the Park were developed by the agency to guide this planning effort and the future development. The master plan is the preferred alternative because it fulfills the vision and goals for the future of the Park recreation and management needs while balancing natural resource protection.

## The Master Plan

The master plan presents the series of preferred alternatives for future development and operation of Taconic State Park. The plan sets forth a long-term vision to guide future development of new and enhanced Park facilities. The initiation of each specific action will be determined by the level of funding available to OPRHP in future years. The master plan includes a proposed implementation timeline. The master plan will be reviewed annually to assess the progress of implementation. The master plan is a separate document that accompanies this EIS.

## Environmental Impacts and Mitigation

The master plan for Taconic State Park seeks to offer improvements to existing natural resource protection strategies and recreation development while delivering additional protection of sensitive natural resources. Planning for new facilities is in accordance with this, and the proposed location of new or expanded facilities avoids sensitive resources to the extent practicable.

The implementation of the master plan will have some positive and negative impacts on natural resources – including upland, wetland, aquatic, scenic, and other. All negative impacts will be mitigated through design and management techniques.

# Chapter 1 – Environmental Setting

## Location and Access

Taconic State Park (TSP) is located along 16 miles of the Taconic Mountain Range in eastern Columbia and Dutchess Counties. From north to south, portions of the Park are within the towns of Copake and Ancram of Columbia County, and in the town of Northeast, Dutchess County. Along its eastern border, the Park is adjacent to the Towns of Egremont, MA and Salisbury, CT.

The Park has two developed areas – Copake Falls and Rudd Pond. The Copake Falls area is accessible from Rt. 344 in the Village of Copake Falls, NY. The Rudd Pond area is along Rudd Drive, off of Rudd Pond Road/ Rt. 62 in the Village of Millerton, NY.

The western, southern, and in a limited way the eastern boundary of the Park is accessible by motor vehicle. The Park's western boundary partly abuts Rt. 22, Rt. 344, Rt. 63, Rt. 62, and several local roads; its southern end is Shagroy Road. The Park's eastern boundary is the New York State line, bordering Connecticut and Massachusetts. There are two roads from Massachusetts that access the Park: Rt 344 becomes Falls Road, MA by Bash Bish Falls, and NY's Sunset Rock Road continues into MA as West Street. There is public access to the Park from Connecticut along an unnamed trail from Mt. Washington Road, CT west of Brace Mountain. Taconic State Park's northern boundary is the Catamount Ski Area in Hillsdale, NY, providing access to the Park on foot via the South Taconic Trail.

TSP is accessible from the Harlem Valley Rail Trail (HVRT) which traverses the Park at Copake Falls and Rudd Pond areas, and runs parallel to the western boundary of the Park everywhere else. From the NY Metro North Wassaic terminal in Dutchess County, the Park is accessible by a combination of train and non-motorized transportation: the HVRT runs from the train station northbound to Millerton, NY. From Millerton, bicyclists can continue on local roads to Rudd Pond or to the HVRT's Under Mountain Road section. The missing HVRT section between Millerton and Under Mountain Road is expected to be completed in the near future. There are no bus routes that access the Park.

Access on foot is also available from many hiking trails that link Taconic State Park to recreational resources on the Massachusetts and Connecticut side, including the Appalachian Trail via a three-mile connector trail near Mt. Brace, NY.

The Park is within reasonable driving distance from the Cities of Albany, Hudson, Poughkeepsie, even New York City and Boston, as well as cities in Massachusetts and Connecticut.

## Park Boundaries

(Figure 1)

Taconic State Park is at the eastern boundary of Columbia and Dutchess Counties, adjacent to Massachusetts and Connecticut. The Taconic Mountains comprise the majority of the Park, while a few westerly sections lie within the Harlem River Valley.

The Copake Falls campground is in the Village of Copake Falls, Columbia County, NY, approximately three miles from the Park's northern boundary. Rudd Pond campground is at the Park's southern terminus in Millerton, Dutchess County, NY.

## Adjacent Land Uses

(Figure 2)

The Park's surrounding land uses are dominated by agriculture on the New York side in the west, and by forestland protected for recreational use along its eastern border in Connecticut and Massachusetts. In all three states, the prevailing land use is interspersed with suburban and rural residential or vacant classifications. The Park's northern neighbor is the Catamount Ski Area.

## Socio-economic Characteristics

The most recent data available from the US Census Bureau was used to determine the socio-economic characteristics of the Park's surrounding towns. That equated to gathering 2010 Census data for total population, median age and race. Median income was not available for the 2010 Census. Therefore, 2010-2014 American Community Survey 5-year Estimates were used to determine median household income. The

socio-economic characteristics of each town are as follows:

The town of Copake, NY has 3,615 residents with the average age of 45.8 years, and median income of $65,645. The population of Copake is 96% white, 3.6% Hispanic or Latino, and 1.4% identify with two or more races. Other categories comprise less than 1% each.

The town of Ancram, NY has 1,573 residents with the average age of 48.2 years, and median income of $62,917. The population of Ancram is 96.4% white, 1.4% Black or African American, 2.6% Hispanic or Latina, and other categories comprise less than 1% each.

The town of North East, NY has 3,031 residents with the average age of 45.2 years, and median income of $59,218. The population of North East is 88.7% white, 9.1% Hispanic or Latino, 5.3% some other race, 2.7% Black or African American, 1.9% two or more races, 1.1% Asian, and less than 1% American Indian or Alaska Native.

The town of Egremont, MA has 1,225 residents with the average age of 53.5 years, and median income of $54,556. The population of Egremont is 96.9% white, 2.4% Hispanic or Latino, 1.2% identifies with two or more races, and other categories comprise less than 1% each.

The town of Salisbury, CT has 3,741 residents with the average age of 52.7 years, and median income of $84,141. The population of Salisbury is 95.1% white, 1.4% Black or African American, 2.9% Hispanic or Latino, 1.1% Asian, 1.7 two or more races, and other categories comprise less than 1% each.

***In sum***, every town surrounding the Park exceeds the national income average of $53,482. The Towns of Hillsdale, NY and Salisbury, CT have a considerably higher median income than the other towns. The residents of every town surrounding the Park are slightly older than the national average of 37.2 years; and residents identifying themselves as white significantly exceed the national average of 72.4%.

## Recreational Needs Assessment

**Definition of the Facility Service Area**. It is common practice in recreation planning to identify a service area from which the facility draws approximately 75% of its users (Haas et al, 2007). Using this definition, the master plan identifies Dutchess, Kings, Nassau, New York, Suffolk, Queens, and Westchester counties in New York as the main service area of the Park. It should be noted that nearly a quarter of the visitors reside in other states or in Canada, including 6% from Massachusetts, and 7% from Connecticut. However, due to lack of recreation data available from outside New York State, the service area was defined based on New York State data only.

**Determining the Relative Index of Needs**. The Relative Index of Needs (RIN) is a method for comparing the demand for a particular recreation activity in the service area with the supply for that activity. The RIN is expressed on a numerical scale, with 10 being the highest relative level of need and 1 the least. Five is considered the statewide average in the current year (in this case the most recent numbers available are for 2012). (OPRHP, 2014)

**The RIN for each New York State county was determined using a statewide survey**. The values for the seven-county service area are presented in Table 1. The index of need over the entire service area was calculated using a weighted average of the seven counties based on population. Only those activities which score a weighted average of five or more are included in the table. (OPRHP, 2014)

**Table 1 Relative Index of Needs**
(Only activities with weighted averages of 5 or greater are listed)

| Activity | RIN |
|---|---|
| Biking | 9.3 |
| Snowmobiling | 9.0 |
| Walking/ Jogging | 8.6 |
| Day use | 8.4 |
| Boating | 7.3 |
| Camping | 7.0 |
| Downhill Skiing | 6.0 |
| X Country Skiing | 6.0 |
| Field Games | 6.0 |
| Fishing | 5.4 |
| Golfing | 5.4 |
| Local Winter | 5.3 |
| Swimming | 5.3 |

We can conclude that in the seven-county service area recreational needs that equal or exceed the New York State average are biking, snowmobiling, walking/jogging, day use, boating, camping, skiing, field games, fishing, golfing, and swimming.

## Economic Contribution

In March 2009, a study prepared for Parks & Trails New York by the Political Economy Research Institute (PERI), University of Massachusetts-Amherst, found that the combination of annual state residents and visitors spending at all New York State Parks supports up to $1.9 billion in economic output and business sales and up to 20,000 jobs throughout the State.

For the Taconic Region, which includes Taconic State Park, the estimated annual economic output and business sales figures are $102 million and 957 jobs created. State expenditures in the Taconic region during fiscal year 2008-9 were $15.4 million for operating expenses and $15.1 million for capital expenditures. Visitor expenditures for the region in the 2007-8 season (last season this information is available) were estimated to be between $52.9 and $109 million. In fiscal year 2008-9, Taconic State Park (including Copake Falls and Rudd Pond) accounted for 5% of the regions attendance. It is reasonable to assume that Taconic State Park also contributed 5% of the economic impact to the region. This equates to the Park contributing $5.4 million in sales to the local economy and 51 jobs.

Ecosystems within the state Park also provide many services to communities that cannot easily be measured, such as reducing negative effects of pollution, supporting soils and providing erosion control, protecting water and air quality, providing flood and storm protection, and supporting critical ecosystems and wildlife habitats. These services, while not measured here, add substantial value to the local area.

Given the Park's location adjacent to Massachusetts and Connecticut, the presence of the Park contributes to the economy and value of lands on the other side of the NY State border as well.

## Designations and Partnerships

Many state, regional, or national organizations and agencies have recognized the significance of the Park's outstanding natural and cultural resources with special designations. These designations do not impose legal limitations on OPRHP action, instead provide the Park with additional recognition for special reasons.

### Designations

- New York State and National Registers of Historic Places, OPRHP and NPS: The Copake Iron Works was designated in 2007 as a Historic District, including 18 acres around the Copake Iron Works.
- New York State and National Registers of Historic Places, OPRHP and NPS: in 2017, Taconic State Park has been found eligible for inclusion in both Registers. The Determination of Eligibility and list of inventoried historic and non-historic Park resources are found in Appendix F.

- National Heritage Area program, NPS: In 2016, the Copake Iron Works received the Hudson River Valley National Heritage Area Site designation.
- National Heritage Area program, NPS: The Towns of TSP are within the Hudson River Valley National Heritage Area – one of 48 such places designated by the US Congress as a place where natural, cultural, and historic resources form a nationally important landscape. (NPS, 2014)
- Forest Legacy Program, USFS: The tristate Taconic Ridge, including its portion in TSP, is a Forest Legacy Area as designated by the US Forest Service. (DEC, 2016b)
- USFS: The Berkshire-Taconic region, spanning NY, MA, CT, and VT, is identified as a multistate priority area (USFS, 2010).
- Forest Action Plans of NY, MA, VT, and CT: The Taconic Region is considered a multi-state Priority Landscape Area. (DEC, 2015a)
- Hudson River Estuary Program, DEC: TSP represents a major portion of the Taconic Mountain Significant Biodiversity Area (SBA) within this DEC program. (Smith, 2015 and Penhollow et al, 2006)
- Hudson River Estuary Program, DEC: TSP is part of the Harlem Valley Calcareous Wetlands Complex, recognized by the Hudson River Estuary Program as a Significant Biodiversity Area (SBA). (DEC, 2016a; Smith, 2015 and Penhollow et al, 2006)
- Taconic-Berkshire Landscape Complex a Northeast regional priority recognized by TNC, USFWS, DEC, HREP, and others: Taconic State Park is part of a 40,000-acre contiguous Taconic-Berkshire Landscape Complex that is one of the most intact forested landscapes within the Lower New England / Northern Piedmont Ecoregion (Barbour, 2003 and NatureServe, 2016), spanning from Maine to New Jersey. This complex has been recognized as a Northeast regional priority for significant habitats and biodiversity areas (also see references provided in Lundgren, 2016).
- NYNHP: Several sections within TSP are recognized as Important Areas for Rare Species (aka Areas of Known Importance for Rare Animals). (Smith, 2015 and Penhollow et al, 2006)

**Partnerships**

- NY Natural Heritage Program (NYNHP)
- Parks and Trails New York
- Friends of Taconic State Park
- New York – New Jersey Trail Conference (NYNJTC)
- Harlem Valley Rail Trail Association (HVRT)
- Massachusetts Department of Conservation and Recreation (DCR)
- The Nature Conservancy (TNC), New York and Massachusetts Chapters
- Trout Unlimited
- Municipalities along Columbia and Dutchess County sections of HVRT: Towns of Northeast, Ancram, Copake, and Hillsdale
- Village of Millerton and Town of Amenia, Summer Youth Camp at Rudd Pond
- Town of Hillsdale Community Center / Roe-Jan Park
- Town of Northeast, long term weed management around Rudd Pond

Several non-profit conservation organizations, such as TNC, the Columbia Land Conservancy, and Audubon

NY, as well as conservation-minded private entities, such as Riga Inc., are in close proximity of or adjacent to TSP. New York State OPRHP coordinates its land-protection efforts with several of these entities.

## Programs

**Land and Water Conservation Fund**. Taconic State Park has received funding through the National Park Service Land and Water Conservation Fund. Acceptance of this federal funding includes a requirement that these facilities remain in public outdoor recreational use in perpetuity. Any proposals for uses other than public outdoor recreation require the prior approval of the National Park Service to lift the use restriction through a process known as "conversion." (NPS, 2008)

## Legal Considerations

- State or federal protection for some of the rare and endangered plants and animals within the Park
- Partnership with Massachusetts for rescue at Bash Bish Falls, and for coordinated efforts to manage visitors, parking, etc.
- The Park manages sections of the Harlem Valley Rail Trail as a contiguous recreational trail. The Park also owns and manages the lands that sections of the Harlem Valley Rail Trail traverse
- Catamount Ski Area lease with TSP: northern terminus of South Taconic Trail traverses Catamount Ski Area on the New York and Massachusetts sides and Catamount Ski Area leases a small piece of land at the northern end of the Park.

## Natural Resources

### Geology

(Figures 3 and 4)

Taconic State Park spans over the westernmost edge of the Southern Taconic Mountains and the adjacent Harlem Valley. The Southern Taconic Mountains are a sub-section of the Taconic Range, a physiographic section of the larger New England province and part of the Appalachian Mountains.

The Southern Taconic Mountains, and the larger Appalachian Mountains, are the result of a collision of two crustal plates, the eastern Laurentia and the volcanic Taconic island arc, that began to occur some 450 million years ago. This collision, the Taconic orogeny, produced the Taconic Range of eastern New York and western New England. As the two plates collided, the Southern Taconic Mountains were thrust upwards, and older rocks were pushed large distances westward and over the younger Walloomsac Formation and the Wappinger-Stockbridge carbonates. The Taconic orogeny was the first Paleozoic mountain building event in North America, and the first of a series of mountain building plate collisions that contributed to the formation of the Appalachian Mountains, North America's oldest mountain range.

The older rocks that were pushed up and thrusted during the Taconic orogeny include the Everett Schist that today underlies much of the Southern Taconics. It is a highly metamorphosed rock that is greenish in color due to the distinctive minerals in it. Underlying the Everett Schist is the younger Walloomsac Formation, a dark gray to black slate and a higher grade metamorphic rock known as phyllite. Separating the two rock types are low-angle faults known as thrust faults. About 220 million years ago the forces that created the Appalachian Mountains were stilled, and the mountains began to wear away. Uplifts and folds in the Hudson Valley region were beveled by erosion. Four ice ages continued to erode the surface geology of the area. Today, much of the rock record is eroded and the ancient Everett Schist bedrock is at or near the surface across the Southern Taconics.

The dominant bedrock in the valleys is the Stockbridge Marble, a metamorphic rock composed of the minerals calcite and dolomite. It is formed when limestone is treated to very high temperature and pressure, such as the Taconic Mountain forming process. Other bedrock components in the valleys are also metamorphosed rocks, a collection of early Paleozoic limestones, slates, gneisses, and schists. Topping the bedrock is a mantle of glacial debris left by the melting of the Wisconsin ice sheet approximately 15,000 years ago. As the Wisconsin ice age waned in the area, it left behind extensive deposits of glacial till and outwash.

## Topography

(Figure 1)

Eons of erosion in the area that includes Taconic State Park have resulted in a valley and ridge topography oriented mostly north-south along the eastern edge of Dutchess and Columbia counties in New York and adjacent New England. The less resistant carbonate rocks of the Stockbridge formation create the floors of wide valleys, Harlem Valley among them. They are paralleled by ridges of highly metamorphosed, erosion resistant rocks of the South Taconic Mountains that rise as much as fifteen hundred feet above the valleys. The South Taconic Mountains have two escarpments running parallel to each other. The South Taconic Trail traverses the western escarpment, primarily within Taconic State Park, over several summits, including the 2,316' Mt. Brace, the highest mountain in Dutchess County. The eastern escarpment is a few miles east of the New York border in Connecticut and Massachusetts, charted by the Appalachian Trail. The highest point along this escarpment is Mt. Everett at 2,602 feet.

The Wisconsin ice age disappeared approximately 15,000 years ago from this area. It left behind extensive deposits of glacial till and outwash. Other evidence includes the overall "softening" of the contours of high ridges, a result of glacial ice overriding and burying everything in its path. Deeply incised valleys in the ridges that are today home to relatively small (aka underfit) streams provide proof that they were cut by torrents of water from rapidly melting masses of ice as glaciers flooded the valley system. One such underfit stream example is Bash Bish Brook and its waterfall.

## Soils

(Figure 5)

Taconic State Park's soils are dominated by the Macomber-Taconic series at elevations of 1,000 feet and higher, along ridgelines and slopes. Macomber-Taconic soils are shallow, somewhat excessively drained, often rocky soils on bedrock controlled uplands, with bedrock exposed in spots. These soils formed in a thin layer of loamy, acidic glacial till. Slopes range from 3 to 45 percent. (USDA 1989) Macomber-Taconic soils are easily eroded. These characteristics affect the ecology of the area and render it sensitive to disturbance. Trails and other recreational use in the Park need to accommodate for this sensitivity.

Due to their higher elevation, Macomber-Taconic soils are in a frigid temperature regime. As a rule, plants have one or more soil-temperature requirements that are met by the soil of their native environment. Similarly, soil fauna has temperature requirements for survival. Soil temperature therefore has an important influence on biological, chemical, and physical processes in the soil and on the adaptation of plants (NRCS/USDA 2002). In TSP, Macomber-Taconic soils support both wooded ecosystems as well as grassy summit communities.

Silt loams, mainly Stockbridge silt loam, are typical in the Park's valleys and at lower elevations. The Stockbridge series formed in calcareous, loamy glacial till. It consists of deep, well drained soils on till plains with slopes ranging from 3 to 35 percent. The soil's alkaline composition gave rise to regionally rare calcareous ecosystems, which support rare plant and animal communities (see more under 'Geology' and 'Wetlands'). Any plans for new recreational trails or other Park infrastructure should avoid sensitive calcareous wetland communities in or near the Park. (NRCS, 2016)

## Water, Watersheds and Wetlands

(Figures 6 and 7)

### *Streams*

The streams at Taconic State Park are classified as "C" by the Department of Environmental Conservation (DEC). This classification designates streams that support fisheries and are considered suitable for non-contact activities such as fishing and boating. Streams at TSP are not suitable for boating due to their size. The most prominent stream in the Park is Bash Bish Brook, which originates in Massachusetts but drains into Roeliff Jansen Kill in New York. This brook and its famous waterfall (Bash Bish Falls) provided the impetus for creating today's Copake Falls and the extension of the Harlem Valley Rail Road – first for the Copake Iron Works, then for a resort destination and recreation hub.

### *Lakes and Ponds*

There are several prominent ponds in Taconic State Park, all of them man-made.

**Rudd Pond** is the largest water body in Taconic State Park, located at the southern end of the Park, with a surface area of 64 acres and a maximum depth of 15 feet. Rudd Pond, named after local landowner Major Bezaleel Rudd (1751-1846), was created by damming an existing wetland. To this day, the southern tip of the pond remains a wetland with an active beaver population. The pond is classified by DEC as class A, indicating that it is suitable for primary and secondary contact recreation such as swimming and boating, as well as non-contact recreation such as fishing. This pond drains into Webatuck Creek via a small stream exiting through a dam and culvert on the pond's north-western shore. There is a swimming beach on its eastern shore, established in 1932, and a car-top boat launch at the northeastern shoreline of the lake. The beach is monitored weekly in accordance with the State Sanitary Code and has excellent water quality. There are 15 tent sites and 26 tent platform sites along the eastern shoreline of the lake.

While ideal for swimming, Rudd Pond's shallow and slow-moving water is also suitable habitat for several aquatic aggressive invasives that have been unwittingly introduced: Eurasian Water Milfoil *(Myriophylum spicatum*), Curlyleaf Pondweed (*Potamogeton crispus*), and Chinese Water Chestnut (*Trapa natans*). The excessive plant growth was cited by Park management, Park patrons, and local officials as impairing the recreational uses (swimming, fishing, and non-motorized boating) and aesthetic beauty of the pond. In 1986, NYS Parks' Division of Environmental Stewardship and Planning (ESP), formerly Environmental Management Bureau, commissioned a study of Rudd Pond to investigate impairments to the pond. Since that time, a variety of management techniques have been employed at Rudd Pond, including use of a mechanical weed harvester (1983 to present), water drawdown (1984/85), triploid grass carp (2000, 2003, and 2016), and benthic mats (2014 to present). The pond was listed as impaired on DEC's 303d Impaired Waterbody List in 1998. Additional studies and surveys were conducted at Rudd Pond by the Water Quality Unit of the ESP, at least once a year from 2000-2007, 2009 and 2012. Biweekly total phosphorous studies were conducted in 2004 and 2007, which resulted in Rudd Pond being delisted from the 303d list in 2010.

A management plan, based off of the extensive survey work, was developed by the ESP Water Quality Unit in 2013 to address these concerns. The plan was presented to Park management as well as to the local town and village boards of the Town of North East and Village of Millerton. The plan provides an adaptive strategy to managing aquatic plant growth in Rudd Pond through consideration and use of mechanical weed harvesting, benthic mats, hand-pulling, and triploid grass carp.

There are three smaller ponds at the Park that were originally dug as iron pits during the region's iron mining era in the 18$^{th}$ and 19$^{th}$ century. After the mining industry ceased, the pits filled with water, creating several small but deep ponds popular with Park visitors for fishing. In addition to Rudd Pond, Ore Pit Pond provides guarded swimming and boating. Swimming is not allowed in any other ponds at the Park.

**Iron Mine Pond**. The biggest of the three pits-turned-ponds, Iron Mine is about a mile south from Rudd Pond, with a surface area of 5 acres, a maximum depth of 70 feet and a mean depth of 65 feet. This man-made pond is currently classified by DEC as class C, indicating that it is suitable for non- contact recreation: fishing. Iron Mine Pond is accessible by a hiking trail from Rudd Pond, as well as via the South Taconic Trail. The pond drains into Kelsey Brook, a tributary for Webatuck Creek. Owing to the pond's steep banks and depth, aquatic invasives are a minor issue, sparsely found on the pond's small shoreline. Swimming is not allowed in Iron Mine Pond.

**Weed Mines Pond**. The oldest of the three mining pits in the Park, this pond was originally opened c. 1775-80., and has a surface area of 3 acres, a maximum depth of 20 feet and a mean depth of 10 feet. This pond, named after a Capt. Weed of Salisbury, CT who worked the mine in the 1850s, is in the approximate middle of Taconic State Park, accessible by short hiking trails on its western shoreline with a trail-head parking lot located on Weed Mines Road. The pond is currently classified by DEC as class C suitable for non-contact recreation: fishing. Swimming is not allowed in Weed Mines Pond. DEC stocks the pond with Rainbow Trout, supplementing the pond's other fish popular with anglers. The invasive Chinese Mystery Snail (Bellamya chinensis) has been identified in Weed Mines Pond. No aquatic invasive plants have been found yet. This pond drains into Noster Kill, a tributary stream to Roeliff Jansen Kill.

**Ore Pit Pond.** This pond is within the developed Copake Falls campground area. Despite its small surface area of 3 acres, it is a popular destination that draws many day-users and overnight campers. Ore Pit Pond has a maximum depth of 48 feet, with a mean depth of 23 feet. It is currently classified by DEC as class A, indicating that it is suitable for primary and secondary contact recreation: swimming and fishing. There is a guarded swimming area with a dock and a children's beach / kiddie pool with a seasonal life guard on duty. This pond is exempt from ADA compliance due to its physical characteristics. The pond is monitored weekly in accordance with the State Sanitary Code and has excellent water quality. There are 45 tent sites, 25 tent

platforms, 36 trailer sites and three cabin areas for a total of 106 campsites and 18 cabins near the pond at the Copake Falls campground. Ore Pit Pond was dug for the Copake Iron Works, and there are several remaining buildings and remnants of the mining operation that comprise the nearby Copake Iron Works Historic District. Ore Pit Pond drains into Bash Bish Brook. The pond has no significant invasives.

**Waterfalls**

Adjacent to the Copake Falls area of the Park, just over the NY-MA state line is Bash Bish Falls (in the past also called Copake Falls), the highest single drop waterfall in Massachusetts. The waterfall is at the mouth of a gorge formed during the last ice age. The falls are made up of a series of cascades tumbling through a hemlock-hardwood ravine forest, nearly 200 feet in total, with the final cascade being split into twin falls by a jutting rock, dropping 60 feet into a serene pool below. Bash Bish Falls empties into Bash Bish Brook, a tributary to New York's Roeliff Jansen Kill.

There are numerous smaller, unnamed waterfalls in TSP, notably along the Quarry Hill Road Trail, by Iron Mine Pond, and several waterfalls visible from the newly completed extension of the South Taconic Trail.

**Watersheds**

Taconic State Park drains into four watersheds, spanning three states. The Park's dominant watershed, which drains most of its Columbia County area as well as the northern part of its Dutchess County portion, is the Roeliff Jansen Kill watershed. This watershed is a significant tributary to the Hudson River and belongs to the Upper Hudson major watershed. The Roeliff Jansen Kill Watershed includes two sub-watersheds overlaying TSP: Bash Bish Brook & Headwaters of Roeliff Jansen Kill. The watershed is named for Roeliff Jansen, a Swede hired in the 1630s by Kiliaen Van Rensselaer of Amsterdam to farm nearby. The remainder of the Park empties into the Housatonic major watershed via three watersheds. Webatuck Creek, a name of Munsee origin, originates in TSP's Dutchess County portion, and its headwaters form a sub-watershed for Tenmile River, in turn emptying into the Housatonic in Connecticut. Small patches along TSP's eastern boundary are part of two other watersheds that also feed the Housatonic: the Williams River – Housatonic River and the Konkapot River – Housatonic River watersheds.

**Wetlands**

The majority of Taconic State Park is located within the Harlem Valley Calcareous Wetlands Complex, a Significant Biodiversity Area identified by DEC that occurs in the valleys and adjacent western ridges of the southern Taconic Mountains.

The wetland complex is made up of a northern and southern wetland system. The northern one is the Northeast – Ancram fen system. The majority of the Park is within the watershed that drains into this unique system which includes the panhandle of the northeast corner of Dutchess County in Millerton, and the western escarpment of the Taconic Mountains (Washburn, Alander, Brace, and Thorpe Mountains) from Copake, NY southward to State Line, Connecticut.

The Park contains two calcareous fens which are the result of freshwater upwellings of relatively high pH which are maintained by the basic, non-acidic composition of bedrock in the Park's lower elevations. An example is Mt. Riga Fen, located partially in the Park north of Rudd Pond. The Mt. Riga fen is a good occurrence of a rare medium fen. It grades into a shrub fen and red maple swamp (Evans et al, 2001 and 2004).

## Ecological Communities

(Figures 8 and 9)

The unique calcareous bedrock geology and distinctive ridgeline and valley topography add significantly to the biodiversity of the Park. Much of the Park's forested lands are second or third growth, having been cleared in the 19th century for charcoal that fueled the iron mining industry, but allowed to succeed to the mature state that is present today. NYNHP has identified 25 ecological community types in TSP, including natural and culturally derived types as defined in the NYNHP classification (Edinger et al, 2014; Evans et al, 2001 and 2004). Over 90 percent of the Park is in natural community types with forests being the dominant land cover. Nine of the natural community types, covering most of Taconic State Park, are considered ecologically significant from a statewide perspective (Evans et al, 2001 and 2004; Lundgren, 2016; Figure 9: Significant Natural Communities Map).

Appalachian Oak-Hickory Forest and Chestnut Oak Forest dominate the landscape. The Appalachian Oak-Hickory Forest, most often on mesic soils, is characterized by red oak, hickory, and maple-leaved viburnum, or sometimes striped maple, in the understory. The Chestnut Oak Forest tends to occur on drier and/or thinner soils, typically on the upper slopes and some ridgetops. Common associates include chestnut oak and black oak, with an understory of mountain laurel, lowbush blueberry, and Pennsylvania sedge. Hemlock-Northern Hardwood Forest lines many of the ravines and streams, and large patches of Maple-Basswood Rich Mesic Forest occur on cool west-facing mid-slopes. Adding to the diversity of biota and scenic interest are the interspersion of smaller patches of less common community types including Acidic Talus Slope Woodland, Pitch Pine-Oak-Heath Rocky Summit, Rocky Summit Grasslands, Shrub Swamp, and two types of rare calcareous wetlands known as fens (Evans et al, 2001 and 2004; Figure 8: Ecological Communities Map).

The lower elevational sections of the Park are within a landscape that has been historically used for farming and which still contains considerable acreage in agriculture. These active agricultural fields are within the western edge and southern section of the Park boundary.

**Table 2 Significant Natural Communities of Taconic State Park***

| Significant Natural Communities (NYNHP) | Acres |
|---|---|
| *Forest & Woodlands* | |
| Acidic talus slope woodland | 29 |
| Appalachian oak-hickory forest | 3022 |
| Chestnut oak forest | 2113 |
| Hemlock-northern hardwood forest | 656 |
| Maple-basswood rich mesic forest | 316 |
| Pitch pine-oak-heath rocky summit | 220 |
| Rocky summit grassland | 8 |
| *Wetlands* | |
| Medium fen | 14 |
| Rich shrub fen | 3 |
| *Total significant natural community acreage* | 6382 |

*Significant natural communities are mapped in their entirety including portions extending beyond TSP boundaries, thus total acreage differs slightly from total Park acrerage.

Taconic State Park is part of a 40,000-acre contiguous Taconic-Berkshire Landscape Complex that is one of the most intact forested landscapes within the Lower New England / Northern Piedmont Ecoregion (Barbour, 2003 and NatureServe, 2016), spanning from Maine to New Jersey. This complex has been recognized by TNC, NYS DEC, HREP, USFWS, and others as a Northeast regional priority for significant habitats and biodiversity areas, as well as a multi-state Priority Landscape Area in the Forest Action Plans of New York, Massachusetts, Vermont and Connecticut (see references under 'Designations,' above). Largely unfragmented forested blocks with minimal roads, such as this Complex, provide essential functions for natural processes and are critical for forest interior species that are sensitive to disturbance, openings, or edges. Taconic State Park is within the target area for several regional conservation efforts to restore habitat connectivity and ecosystem resiliency in this Ecoregion. These efforts include the Staying Connected Initiative, the Berkshire Wildlife Linkage, and the Berkshire Taconic Regional Conservation Partnership, all spanning across NY, VT, MA, and CT. These designations do not incur any legal constriants on OPRHP.

TSP's intact natural communities, their connectivity to a regional protected landscape, and the large diversity of species can mitigate the pressures those species face from our changing climate. The master plan's strategies are explicitly aimed at the protection of these critical natural resources.

## Flora

(Appendix B)

The flora of TSP includes species typical of forests and fields of the region as well as less common species that occur in more unique habitats such as the talus slopes, the fens, and canopy openings on the ridgetops. The NYNHP has plant lists from its ecological community and rare plant surveys in the Park, as well as a

snapshot of 204 plants recorded in a one-day Bioblitz in May 2013 (NYNHP, 2013). Additional inventories in the Park and surrounding towns also provide a guide to potential species in the Park and identify which species are locally rare or uncommon in the locale. An extensive list of the flora in the area, not always specific to the Park, is included as Appendix B of this document.

## Invasive Plants

Surveys for invasive plants have not been done in most areas of the Park. At least twenty-three terrestrial and four aquatic species of non-native invasive plants have been documented in the Park and entered into the iMapInvasives database by NY Natural Heritage Program, OPRHP and other organizations (Table 3), but many other invasive species are known in the landscape. Many of these are prevalent in the more open areas with a history of prior disturbance, such as open fields, shrublands, early successional woodlands, and roadsides. One of the most problematic invasive species is Black Swallow-wort which is difficult to control. In addition to out-competing native plants, this species can encroach upon trails and is toxic to Monarch butterflies that mistake it for milkweed (USFS, 2016). These records and any more recent additions are available on the iMapInvasives website (www.imapinvasives.org). Additional invasive species discoveries are inevitable, and efforts to add them to the iMapInvasives database can help others identify areas for preventing further spread or controlling infestations before they become larger problems.

**Table 3 Invasive Flora Identified at Taconic State Park, 2015**

| Botanical Name | Common Name |
|---|---|
| Ailanthus altissima | Tree-of-heaven |
| Alliaria petiolata | Garlic Mustard |
| Berberis thunbergii | Japanese Barberry |
| Berberis vulgaris | European Barberry |
| Bromus tectorum | Cheatgrass |
| Celastrus orbiculatus | Asiatic Bittersweet |
| Centaurea maculosa | Spotted Knapweed |
| Cynanchum louiseae | Black Swallow-wort |
| Eleocharis dulcis | Water Chestnut |
| Euonymus alatus | Burning Bush |
| Glechoma hederacea | Ground Ivy |
| Ligustrum obtusifolium | Border Privet |
| Ligustrum vulgare | European, aka Common, Privet |
| Lonicera maackii | Amur Honeysuckle |
| Lonicera morrowii | Morrow's Honeysuckle |
| Lythrum salicaria | Purple Loosestrife |
| Myriophyllum spicatum | Eurasian Watermilfoil |
| Persicaria maculosa | Spotted Lady's Thumb |
| Phragmites australis ssp. australis | Common Reed |
| Poa compressa | Canada Bluegrass |
| Potamogeton crispus | Curlyleaf Pondweed |
| Reynoutria japonica var. japonica | Japanese Knotweed |
| Rhamnus cathartica | Common Buckthorn |
| Robinia pseudoacacia | Black Locust |
| Rosa multiflora | Multiflora Rose |
| Tussilago farfara | Coltsfoot |
| Veronica officinalis | Gypsy-weed, Common Speedwell |

## Fauna

(Appendix B)

The birds, fish, mammals, amphibians and reptiles that are found in the surrounding areas are representative of those found in the Park. The Park provides habitat for popular game species, including white-tailed deer and wild turkey, as well as many other species including Eastern chipmunk, red squirrel, gray squirrel, muskrat, beaver, mink, fisher, otter, porcupine, striped skunk, coyote, red fox, grey fox, raccoon, eastern cottontail, bobcat, black bear, and at least six species of bats. TSP's ponds, wetlands and streams are home to numerous species of salamanders and frogs, diving ducks and other migratory and resident waterfowl, as well as raptors such as red-shouldered hawks, and its streams provide a migratory route for the American Eel, the only freshwater eel in North America. The Park's lakes and streams also support fish such as brown, brook, and rainbow trout, largemouth bass, and chain pickerel. Old fields, shrubland and early successional woodland communities provide important habitat for a variety of resident and migratory bird species. The Park's ridgeline is used by passerines and raptors for navigation during migration.

In 2013, a Bioblitz – a 24-hour survey by scientists – documented 288 animal species in the Park, including 65 birds (resident and migratory), 17 reptiles and amphibians, 14 mammals, 4 fish, 85 moths, and 103 additional invertebrate species (NYNHP, 2013). Given this was a one-day snapshot, the full diversity of animals in the Park is undoubtedly greater. An extensive list of the fauna in this geographic region, but not necessarily specific to the Park, is included as Appendix B of this document.

***Invasive fauna***

**Terrestrial.** Several invasive forest pests are either in the Park or on the brink of breaching its borders. Hemlock Wooly Adelgid (*Adelgis tsugae*) has been found in the Park in several locations, including the iconic Bash Bish Fall area where the loss of Hemlock trees would have a devastating effect. Emerald Ash borer (*Agrilus planipennis*) is not documented yet, but is already found in both Dutchess and Columbia Counties and Asian Long-horned Beetle (*Anoplophora glabripennis*) is known from Worcester, MA where many Copake Falls campers reside. Southern Pine Beetle (*Dendroctonus frontalis*) is native to the southeastern U.S., but has been moving northward, killing off pitch pine (*Pinus rigida*) and some other coniferous species, as well. This forest pest is now widespread on Long Island and has recently been found in a few specific locations in the Lower Hudson region, as well as in nearby MA and CT. It is uncertain if SPB will spread to the Taconic ridgetops, due to the spotty nature of pitch pine distribution in this region, or the planted spruce and pine stands found in the Park.

Taconic State Park recognizes the threat of these invasives to native biodiversity and ecosystem function by impacting ash, maple, pines, and hemlocks. Losses of any of these species would impact rare species, scenic values, and recreation values, as well as increase the frequency of hazardous tree removals and increase erosion. Monitoring is ongoing for Emerald Ash Borer and Asian Long-horned Beetle at both campgrounds and for HWA in recreation areas and ravines. DEC is monitoring the spread of Southern Pine Beetle in the Hudson Valley and in Taconic State Park by use of traps. The arrival of EAB is inevitable in the Park, but vigilance to prevent the arrival of ALB is critical. Unlike the other species above, ALB is a poor disperser (it does not move far), so controlling transport of firewood can prevent unwanted spread of this and other pests. Firewood from sources outside the Park must meet the requirements listed in the Camping Procedures & Reference Manual (OPRHP, 2016) which states:

"Patrons should not be bringing firewood from home. Only firewood labeled as meeting New York's heat treatment standards (kiln-dried) may be transported into the state and further than 50 miles from the firewood's source. They should use only firewood from local sources usually provided by the campground. If the patron brings firewood, ALL must be burned before leaving their campsite. For more information see link: www.dec.ny.gov/animals/28722.html."

**Aquatic.** The invasive Chinese Mystery Snail (*Bellamya chinensis*) has been identified in Weed Mines Pond.

## Rare, Threatened and Endangered Plants and Animals

Eleven species listed as rare, threatened or endangered in NY State have been documented in the Park to date (Lundgren, 2016) including nine plants and two animal species. New records continue to be found and more species are added to the state lists through periodic reviews. Although rare species surveys have been conducted through many areas of the Park, it is impossible to cover every area and all taxa. In particular, some taxa are easily overlooked or harder to inventory or identify such as moths, beetles, mosses, and sedges, so additional surveys are warranted. In particular, surveys prior to creation of new trails or developments can help prevent unintentional impacts to rare species.

The Park also supports a number of species such as red-shouldered hawk, prairie warbler, four-toed

salamander, several bats, New England cottontail, the American eel, and others that NYS DEC has identified as Species of Greatest Conservation Need (SGCN) and in the State Wildlife Action Plan (DEC, 2015b). Documenting which of these animal species occur in the Park and where, and working with DEC to incorporate that information into any protection and management plans can help in the conservation of these species.

## Air Quality

Taconic State Park is within Columbia and Dutchess Counties. Both counties are in attainment areas for primary and secondary ozone (O3) pollution. (DEC, 2011) New EPA standards for ozone went into effect December 28, 2015. The 2008 standard of 0.075 ppm for fourth–highest daily maximum 8-hour concentration, averaged over 3 years, was changed to 0.070 ppm. (EPA, 2016) Non-attainment areas under the new EPA standards have not yet been released.

Columbia and Dutchess Counties are not within a nonattainment area for particulates. (DEC, 2014a)

## Climate

The Park is located in the humid continental climate zone and has cold, snowy winters, and hot, wet summers; the area experiences four distinct seasons. Rainfall averages 39.35 inches per year. Snowfall is significant, totaling an average of 59.1 inches annually. The area is close enough to the Atlantic coast to receive heavy snow from Nor'easters and occasionally Alberta clippers. Winters can be very cold with fluctuating conditions; temperatures often drop below 0°F at night. Summers in the Park can contain stretches of excessive heat and humidity, although less extreme than the surrounding Hudson River Valley, with temperatures above 90°F. Record temperature extremes measured at nearby Albany International Airport range from −28°F on January 19, 1971, to 104°F on July 4, 1911. (NOAA, 2014) Higher elevations of the Park register somewhat cooler temperatures.

TSP is not immune to the threats of climate change and they informed the strategies selected in the master plan for the Park's natural, recreational, and facility infrastructure protection or improvements.

# Cultural Resources

The area as a whole is significant from a Native American, early-American trading, Revolutionary War, and Industrial Revolution standpoint.

The Division for Historic Preservation (DHP) approves the use of a Cultural Resource Sensitivity Map found in the Agency's Cultural Resource Information System (CRIS) for determining the need for archeological testing prior to implementing Park construction projects that include ground-disturbing activities. If the categories and sensitivity recommendations on the map are followed in adherence with the appropriate Agency historic preservation policies, no consultation with DHP is necessary to determine the need for an archeological survey.

Within the boundary of the Park are the New York State and National Register listed Copake Ironworks Historic District and the individually listed Church of St. John in the Wilderness. In addition, Taconic State Park has been determined to be eligible for listing in the registers (see Appendix F: Determination of Eligibility and full list of historic resources identified within the Park).

### Pre-Historic

**Native Americans.** Archeologists estimate that Native Americans, specifically Mohican and pre-Mohican people, lived in today's Columbia County for about 10,000 years, with some archeological sites indicating continuous human settlement for approximately 5,000 years, until the area was colonized by the Dutch. Today's Dutchess County was the northernmost range of the native Lenape people who, like the Mohicans, thrived on the resources of the region's rich forests and waterways for thousands of years.

Taconic State Park received its name from the mountain range of the same name that dominates the Park. The name "Taconic" is a modern rendering of a Native American word variously spelled Taghkannock and Taghkanic, which means "in the trees" in Lenape, and was used as the name of a Lenape chieftain.

### Historic

**Influx of European settlers.** From the early 1600s, European settlers - Dutch, English, then French and Swedish - entered into economic and military agreements with Mohican and other neighboring Native

American tribes. Native Americans got swept up in the wars Europeans waged for access to the fur trade and land, and their numbers plummeted, further exacerbated by losses from intertribal conflicts. In the mid-1730s, the remaining Mohicans gave permission to John Sergeant to start a mission in Stockbridge, MA. The congregation was joined by tribes from eastern New York and several in New England, and tribal identity became increasingly blurred. The few remaining Native Americans of today's Columbia and Dutchess counties in New York, as well as Berkshire County in Massachusetts came to be known as the 'friendly'

Stockbridge Indians.

The land of today's Hillsdale, NY at the northern tip of Taconic State Park was among the last parcels the Stockbridge Indians owned. Around 1755 they sold it to the residents of the Massachusetts Bay Colony who named their settlement 'Nobletown' (USGenNet, 2015). State boundaries between NY, MA and CT were not finalized at that time. By the end of the 18th century Native Americans from this region relocated or were forced out.

The state boundary between New York and Massachusetts was settled in 1786 in the Treaty of Hartford, following decades of boundary wars. Massachusetts retained a small triangle of land known as Boston Corners, which was ceded from Mount Washington, Massachusetts to Ancram, New York in 1853. The two states continued to identify with land over their borders. Most notably, both NY and MA regarded the picturesque area of Bash Bish Falls as their jewel, a sentiment that persists today.

Among the very early settlers one in particular left his name in today's Columbia County. The Swede Roeliff Jansen was hired by the Dutch Kiliaen Van Rensselear of Amsterdam to farm in the Upper Hudson Valley. He sailed from Holland with his family in 1630 and, some people think, he farmed in what is Hillsdale today, at the northern tip of Taconic State Park. The truth is elusive, but the Roeliff Jansen Kill and Roeliff Jansen watershed, as well as several cultural organizations, bear his name today. The Roeliff Jansen Kill Watershed includes two sub-watersheds overlaying TSP: Bash Bish Brook & Headwaters of Roeliff Jansen Kill.

**1800s– Iron Mine Industry**. With European settlement, most of Columbia and Dutchess Counties' rich fertile valleys began a long history of agriculture. TSP's Rudd Pond, for example, was named after Major Bezaleel Rudd (1751-1846), an officer in the Continental Army who settled and farmed the Rudd Pond area with his family. Following the Revolutionary War, the Taconic Mountains became pivotal in the iron mine industry and the supporting charcoal and timber production. Iron-ore extraction, foundry operations, logging, charcoal making, and rail transportation of extracted resources took over the Taconic Mountains from the New York, Massachusetts and Connecticut sides in a development known as the Salisbury Iron District. The district in its heyday had 40 active blast furnaces.

The Copake Iron Works was established in 1845 along the Bash Bish Brook at the base of the Taconic Ridge. At that time, the area had not been settled. The Copake Iron Works' original owner was Lemuel Pomeroy II of Pittsfield, MA. In 1862, he sold it to Frederick Miles of CT. In 1903, when the foundry fell silent, William A. Miles took control of the operations with Miles' Copake Plow Works. In 1926 the State of New York purchased the land and remaining structures (including the Iron Workers Cabins now available for rent to Park visitors) and equipment from William A. Miles. For an excellent history and overview of the Copake Iron Works era, consult Gobrecht, 2000a and 2000b.

In 2007, the Copake Iron Works site and 18 acres surrounding the area were listed on the State and National Registers of Historic Places. The Copake Iron Works Historic District comprises all of the buildings in the Iron Works area: the historic blast furnace, three workers' houses (used today as Park cabins), and the now-flooded ore pit, as well as the National Register-listed Church of St. John in the Wilderness, a gem-like little church, c. 1852, designed by Richard Upjohn, the eminent church architect responsible for Trinity Church in NYC. Three small ponds spanning the length of TSP - Iron Mine Pond, Weed Mines Pond, and Ore Pit Pond – are all testaments to the iron mining era, and became ponds once the industry left the area. Other smaller ore pits can be found on both public and private lands to the south of Copake Falls.

The New York and Harlem Railroads opened a line through Copake in 1852 and the stop became known as Copake Iron Works. This rail line offered passenger service until 1972. After it became abandoned, the Harlem Division track along the western border of TSP began its transformation to trail use as the Harlem Valley Rail Trail. Several sections have been completed and today serve as picturesque trails for public recreation.

Despite the extensive damage and deforestation brought on by the iron mining industry, the natural beauty of the Taconic Mountains and their valleys filled with streams and waterfalls attracted visitors and vacationers

from the second half of the 19th century. In the 1860s, the New York City based Church of Heavenly Rest, aka 'The Rest,' established a camp in Copake Falls, later adding cabins to the camp, and renting the grounds to the Greenwich House of NYC in the 1920s. The Greenwich Camp hosted underprivileged kids from NYC until 1991. In 1948, New York State Parks bought the parcel of The Rest, including the Greenwich Cottages. Since the 1990s, the comfortable cottages are available for rent to all Park visitors.

Also in the 1860s, part of the Bash Bish gorge, straddling NY and MA, was purchased by Jean Roemer, vice

president of the College of the City of New York, who handed it to his friends Mr. and Mrs. Douglas to develop their summer home. The Douglas family built cottages, stables, and an Inn. After her husband's passing, Mrs. Douglas rebuilt the Inn in a Swiss style, but due to financial troubles, the Inn closed within a short while.

**Early 1900s.** This was a thriving era in the history of Copake Falls. An experienced NY hotel manager purchased the Douglas estate, transforming all the structures on the property, and then sold it to one of the most successful New York restauranteurs of his time, L.C. Mouquin. He renamed the hostelry 'Bash Bish Inn.' The prominent inn, famous for its natural setting, luxuries, and fine cuisine, attracted a high-power clientele, including a governor of New York State. Unfortunately, on September 18, 1918, this elegant inn was completely destroyed by an accidental fire.

Many of the visitors to Copake Falls came to enjoy the first-rate recreational opportunities of the Taconics, especially the excellent trout fishing that Bash Bish Brook was renowned for. Fishing was the reason for Mr. Francis Masters' first visit to the area as well. In 1904, he built his own fishing lodge, and soon after, having fallen fully under the spell of his surroundings, Mr. and Mrs. Masters purchased many acres and established High Valley Farm. The Masters family has played a critical role in the history of Taconic State Park since its inception.

**Birth and History of Taconic State Park**. The genesis of the idea to secure Bash Bish Falls and the surrounding mountains for public ownership dates back to the 1880s (Gobrecht, 2000b). TSP was first envisioned as part of a 40,000-acre Tri-State Park of New York, Massachusetts, and Connecticut. However, MA and CT decided, for different reasons, to abandon the idea, and New York proceeded on their own. In 1924 local landowners Francis and Ella Masters took matters in their own hands by donating land to New York State as the first parcel of what was to become Taconic State Park (Chatham Courier, 1964). They also purchased Bash Bish Falls just to sell it to the State of Massachusetts for no gain with the provision that it forever remains undeveloped public land. As a result, Massachusetts established Bash Bish Falls State Park. In 1924 New York State authorized funding to the Conservation Commission for land purchases in the area. A year later the Taconic State Park Commission was established to take over the development of plans and to assume administrative responsibility. Five Commissioners were selected, with Francis Masters representing Columbia County, and F.D. Roosevelt as chairman.

Taconic State Park opened to the public in 1927 on approx. 2,600 acres of land around Copake Falls, NY. The Rudd pond area in the Park's southern section was acquired by the state in 1928 and opened to the public in 1931. Among its first tasks, the Park built twelve miles of trails, repaired two miles of roads, and established parking areas making accessible by several approaches the beautiful Bash Bish Falls. By 1927 the Commission also erected a 60-foot fire observation tower on Alander Mountain with telephone lines to connect to the New York telephone system. That tower was later moved out of Massachusetts to its current location in Beebe State Forest, but evidence of the footings remains on the mountain.

Beginning in 1933, the Park underwent renovation and expansion by the Civilian Conservation Corps (CCC). Camp #3 Copake was established in Copake Falls, employing local men as foremen, all of them former employees of the Commission and the Park. For a brief portion of 1933, a CCC camp was located in the Boston Corners section of the Park. Among the multitude of labor-intensive projects, they built today's five Bash Bish cabins and their furniture, built comfort stations both at Copake Falls and Rudd Pond, established picnic areas and built picnic shelters, built trails, cleared brush along roads, excavated into hillsides to enlarge parking areas, and established evergreen plantations.

The demise of the Tri-State Park idea is the reason for today's somewhat fragmented tracts of land where NY, MA and CT meet, some parcels owned by the three states, some by several conservation organizations and conservation-minded private entities. New York State continues its efforts to connect fragmented tracts of TSP and to extend the Taconic trail system. The most recent additions to the Park were a 250-acre land purchase in 2008 and the purchase of development rights in 2015 over approx. 800 acres of private land spanning Washburn Mountain. Both transactions closed significant gaps in Taconic State Park's Dutchess

and Columbia County portions, the first near the newly extended South Taconic Trail, the other connecting the Park's Copake Falls area with Alander Mountain.

## Recreational Resources/Activities

(Figure 10)

**Trails**

The Park has approx. 25 miles of designated trails for hiking, biking, cross-country skiing, and/or

snowshoeing.

The recently expanded 23.4 mile South Taconic Trail traverses the entire length of the Park north to south along the western escarpment of the South Taconic Mountains, straddling the New York and Massachusetts border, with several access trails from NY, MA and CT. This trail offers numerous scenic views to the Hudson River Valley and the Catskill Mountains from several overlooks and summits, including Brace Mountain, Dutchess County's highest peak (2,316'), Alander Mountain in MA, and Sunset Rock Mountain in Columbia County, NY. The New York – New Jersey Trail Conference maintains the entire South Taconic Trail.

Both Copake Falls and Rudd Pond feature several moderate trails close to picnic areas and other recreational amenities offered by the Park. The Park's most frequently used trail leads from the Copake Falls area to Bash Bish Falls just over the NY State line, the most dramatic and highest single drop waterfall in Massachusetts.

The Copake Falls area includes a short and easy trail to the Park's Copake Iron Works Museum, a historic district from the area's iron mining past in the 19th century. The charcoal blast furnace, blowing engine house, machine shop, office and powder storage building still remain and are open to the public during the spring, summer and fall seasons.

An approx. 3-mile hiking trail connects the South Taconic Trail near Brace Mountain to the Appalachian Trail in Massachusetts, and a sizable section of the Appalachian Trail can be accessed near Taconic State Park.

In addition to the Park's trails, the Harlem Valley Rail Trail traverses Taconic State Park in several locations, and parallels the western edge of the Park in its entire length. Once a rail line extension from New York City, it is now a picturesque trail with interpretive signs designated for biking, hiking, snowshoeing or cross-country skiing.

**Swimming**

Taconic State Park offers two locations with guarded swimming opportunities: a swimming dock and a kiddie pool at Copake Falls' Ore Pit Pond, as well as a small sandy beach at Rudd Pond. Swimming is not allowed in other ponds at the Park. Ore Pit Pond is exempt from ADA compliance due to its physical characteristics. There is a seasonal life guard on duty in both locations. Guarded swimming will continue at TSP. The swimming schedule is described below under 'Hours of Operation.'

***Ore Pit Pond***

This pond is within the developed Copake Falls campground area. Despite its small surface area of 3 acres, it is a popular destination that draws many day-users and overnight campers. Ore Pit Pond is deep – with a maximum depth of 48 feet, and a mean depth of 23 feet. Instead of a swimming beach, the pond offers a 60' x 6' dock with a 100' X 100' guarded swimming area that accommodates approx.100 swimmers. The pond is exempt from ADA compliance due to its physical characteristics such as its steep shoreline and significant depth. Ore Pit Pond has 3 lifeguard chairs, 2 on the dock, and 1 on a 12' x 20' float in the pond. Lifeguards are on duty Memorial Day through Labor Day, weekends only until the 3rd weekend in June, and then 7 days / week until Labor Day. Ore Pit Pond is a man-made pond, dug as an iron pit during the region's iron mining era in the 19th century. After that industry ceased, the pit filled with water, creating a small but deep pond with excellent water quality.

An adjacent kiddie pool was built prior to the Park's opening in 1927. There is a seasonal life guard on duty. The kiddie pool is approximately 100' x 50' and approximately 2' deep.

***Rudd Pond Beach***

The 15-foot-deep Rudd Pond was created by damming a wetland, and its southern tip remains a wetland with an active beaver population. Rudd Pond offers a sandy guarded swimming beach on its eastern shore, established by the New York State Park Service in 1932. Its 100' x 100' guarded swimming area

accommodates approx.100 swimmers. The beach has excellent water quality. There is a single lifeguard chair, with lifeguards on duty Memorial Day through Labor Day, weekends only. Rudd Pond has a beach wheelchair for beach swimming accessibility. Currently 2 youth day camps from the Village of Millerton pay TSP to allow swimming for their campers on weekdays early July - August.

**Biking**

The Harlem Valley Rail Trail (HVRT) runs parallel to Taconic State Park along its western boundary, and transects the Park in two general areas: Weed Mines Pond and Copake Falls. To ride the Harlem Valley Rail Trail, visitors can rent bicycles from a facility at Copake Falls just outside of TSP boundaries. Parking for the trail is provided in several locations, including in Copake Falls.

A section of the HVRT between Weed Mines Pond and Rudd Pond is currently under construction. Once finished, it will provide access to the Park in additional locations. More importantly, it will connect the section near Copake Falls to a long-completed section south of Rudd Pond stretching to the Wassaic train station in Amenia, NY. As a continuous trail, the HVRT will allow for millions of urban and suburban visitors, potentially all the way from New York City, to take the train to Wassaic and continue to the Park by bicycle.

**Boating**

Public boating is permitted at Rudd Pond with a Taconic Region boating permit. Boats with a trolling motor are permitted with valid NYS DMV registration. Visitors can rent kayaks, canoes, and row boats from TSP between Memorial Day and Labor Day, 7 days a week to enjoy at Rudd Pond. There is a boat launch from the shore of Rudd Pond, north of the beach/ swimming. Boating in TSP is allowed only at Rudd Pond, not in any other water body.

**Camping and Cabins**

***Tent/trailer sites***

The Copake Falls campground has sites to accommodate campers seeking a more rustic as well as a more comfortable experience. There are four camping loops encompassing 45 tent sites, 25 tent platforms, and 36 trailers for a total of 106 campsites. The trailer sites allow trailers up to 30 feet in length, but do not offer hook up facilities. Centrally located restroom and shower facilities are found in all campsite areas.

The Rudd Pond campground has 15 tent sites and 26 tent platform sites, each providing campers with grand views of the Taconic Ridge, Rudd Pond, and nearby countryside. Each campsite has a picnic table and a camp fire ring and grill. A shower house with hot water and an auxiliary bathroom are located within the campground. There are no trailer sites.

***Group camps***

The Copake Falls and Rudd Pond campgrounds do not have group camp areas. Requests for group camping have been accommodated if space can be provided without inconveniencing other campers.

***Cabins***

The Copake Falls campground has three cabin areas for a total of 18 cabins: the Ironworkers Cabins, the Greenwich Cabins, and the Bash Bish cabins. The three cabin areas vary in number of cabins, location and size. The Ironworkers Cabins accommodate either four or six people; the Bash Bish Cabins have a four-person maximum; some cabins in the Greenwich Cabin area can sleep four while the Greenwich Full Service Cottages can sleep up to six.

All cabins have electricity, lights, hot and cold running water, a kitchen with a refrigerator and stove, a dining area, a picnic table, and outdoor camp fire ring with grill. The Ironworkers Cabins are equipped with private showers and flush toilets; campers in the Bash Bish Cabins utilize a centrally located shower facility with flush toilets. Some cabins in the Greenwich Cabin Area are wheelchair accessible and offer home-like amenities such as a microwave, sofa, shower, dishwasher and cable television hookup.

**Hunting and Fishing/ Ice Fishing**

Deer and turkey hunting is allowed in the Park provided an individual possesses a valid state hunting license (issued by DEC) and a Regional Hunting Park Permit issued by OPRHP's Park office. Generally, hunting is allowed in the Park at certain times of the year corresponding to DEC hunting seasons. Hunting is allowed

only in designated areas of the Park, mainly away from hiking trails on the South Taconic Range, and away from the developed parts of the Park. No hunting is allowed on the Harlem Valley Rail Trail. In season, both deer hunting (rifle/shotgun/bow) and turkey hunting (bow only, until 12 noon) are permitted in designated areas. A New York State hunting license is required. Taconic State Park property encompasses land in both Dutchess and Columbia Counties and hunters are required to adhere to the appropriate regulations on season and implements set forth by the New York State Department of Environmental Conservation.

Fishing, with a state fishing license for 16-year-olds and older, is permitted on all waters within the Park boundary. Fishing in Rudd Pond is allowed from the shore and from boats. In the winter months, conditions permitting, visitors can ice fish on the pond.

**Paragliding**

Brace Mountain is a favorite in the region for paragliding, an activity only permitted through the Brace Mountain Club, which holds the paragliding permit at the Park.

**Day Use Areas:**

***Picnic Areas***

Taconic State Park has picnic tables and grills both at the Copake Falls and Rudd Pond areas which are available on a first come – first serve basis. At Copake Falls they are in the shaded Cherry Grove day use area, near the playgrounds, while at Rudd Pond they have a lovely lakefront location, adjacent to the beach. During the summer swimming season, visitors are required to pay the Park's Vehicle Use Fee (VUF) or have an Empire Passport to enjoy these facilities.

***Pavilions***

There is one pavilion at the Copake Falls area of Taconic State Park, overlooking Ore Pit Pond. It is 16' x 31' and handicap accessible. It is either on a first come first serve basis, or reserve-able for a $35 fee. The amenities of the pavilion include picnic tables, one large and three small barbeque grills, and a water source.

***Playgrounds***

Taconic State Park has a playground each at Copake Falls and Rudd Pond, for the 6-12-year-old age group.

***Environmental Education and Interpretation***

Taconic State Park staff, in conjunction with the Friends of Taconic State Park, provides guided walks and snowshoes throughout the year. During the summer, TSP hosts family friendly wildlife presentations by environmental educators. The schedule is posted on the Park's website.

Given the wealth of cultural and historic resources at Taconic State Park, there is a tremendous opportunity to educate visitors and interpret these resources for the public. Unfortunately, in recent years the Park has not been able to hire a Park interpreter.

**Interpretation**.

A recently completed interpretive information kiosk is posted at the Copake Falls area of the Park. There is also ample interpretive signage along the Harlem Valley Rail Trail. It offers information on the geology, plants, animals and cultural history of Taconic State Park.

The Copake Iron Works, listed on the New York State and National Registers of Historic Places and designated a Hudson River Valley National Heritage Area Site, is located within the Park's Copake Falls area. There are 25 interpretive panels that illustrate the significance of this historic district. Visitors are welcome to take a self-guided walk following an interpretive map available from the Park office and at the Copake Iron Works Museum's self-guided portion. The site includes the Copake Iron Works Museum, housed in the former machine shop. The museum is open for monthly events (usually the 3rd Tuesday of the month, September-May) and July through October on Saturdays and Sundays from 2-4pm. It is also open by appointment.

## Scenic Resources

***Vistas***

Taconic State Park is home to a multitude of significant scenic vistas. The South Taconic Trail, which traverses the western Taconic Ridge, and its access trails provide panoramic views west into the Harlem River Valley and beyond to the Catskill Mountains, east to the Taconic Mountains in Connecticut and

Massachusetts, and even to Mt. Greylock in the Northern Berkshires, MA. Another scenic resource is the landscape of the Taconic State Park itself, which dominates the view-shed of the Harlem Valley Rail Trail (HVRT), a paved recreational trail that traverses the Park in several locations.

#### *Bash Bish Falls*

Bash Bish Falls, located just over the state border in Massachusetts, has defined the identity of the area for centuries both on the New York and Massachusetts side. Bash Bish Falls and Brook provided the impetus for creating today's Copake Falls and the extension of the Harlem Valley Rail Road – first for the Copake Iron Works, then for a resort destination and recreation hub. The Falls are made up of a series of cascades tumbling through a hemlock-hardwood ravine forest, with the final cascade dropping 60 feet into a serene pool below. It is the highest single-drop waterfall in Massachusetts. Taconic State Park provides full service camping, amenities and access to Bash Bish Falls by a moderate 0.75-mile foot trail, the most popular trail at TSP.

#### *Star Gazing*

Because Taconic State Park closes at sunset to day-users, there are no general star gazing programs at the Park. The name of Sunset Rock Mountain along the South Taconic Trail indicates it is a great spot to view the sunset over the Catskill Mountains. However, there is no overnight camping along the trail, so visitors need to leave the Park by dark for their own safety. Overnight visitors at both camping areas can enjoy the night sky.

## Infrastructure and Operations

### Seasons and Hours of Operation

Taconic State Park is open year-round, sunrise to sunset, weather and conditions permitting. The road to the Park headquarters in Copake Falls is open throughout the year.

The Park headquarters is open daily from 8:00 AM to 4:30 PM in the winter and from 8:00 AM to 5:30 PM in spring. Summer hours are 8:00 AM to 9:00 PM.

### Camping

The Copake Falls campground is open for camping from the first Friday in May through the last weekend in November. The Ironworkers & Bash Bish Cabins are open from the first Friday in May through the last weekend in October. The winterized Greenwich Cabins, a short drive to local Catamount and other local ski resorts, are open year-round.

The Rudd Pond campground is open for camping from Memorial Day through Labor Day weekend. Within the camping season time frame, some loops/sites may open later or close earlier. For more details, visitors are encouraged to call the Park.

Firewood. Patrons may not bring their own firewood into the Park. Only firewood labeled as meeting New York's heat treatment standards (kiln-dried) may be transported into the state and further than 50 miles from the firewood's source. Patrons are encouraged to purchase firewood at the Park office when available or from local vendors. These measures safeguard the Park from the introduction of invasive species that threaten the health and survival of the Park's woods, such as Asian Longhorn Beetle, Emerald Ash Borer, Southern Pine Beetle, Hemlock Wooly Adelgid, and others. (OPRHP 2015)

### Swimming

The Copake Ore Pit guarded swimming area is open on weekends and holidays only from Memorial Day weekend through the third weekend in June (exact dates vary). After that, the swimming area is open seven days a week through Labor Day. Hours are 11 AM to 7 PM daily. A swim test is required for children 12 and under to swim in the Copake Ore Pit. An adult must accompany children 10 and under.

The Rudd Pond beach is open weekends only Memorial Day through Labor Day. Hours are 11 AM to 7 PM.

Swimming is not allowed in other ponds at the Park.

### Emergency Plans and Services

The Park is in Columbia and Dutchess Counties. Portions of the Park lie within different townships. Depending on where in the Park a fire may break out, responders will come from any one of a number of local

agencies including Hillsdale, Copake, Ancram and Northeast in New York, Town of Egremont and Mt. Washington in Massachusetts, and Lakeville, CT in the Town of Salisbury.

An Emergency Action Written Preparedness Plan (EAWPP) is posted in all staffed buildings within the Park. A copy is also kept on file with the Regional Safety Officer as well as at the regional Park Police headquarters. The emergency action plan details Park staff roles and responsibilities, evacuations and responses to emergencies.

The NYS Park Police support Park activities and operations through enforcement of Park rules and regulations, vehicle and traffic law and other criminal and environmental statutes as necessary. The NYS Park Police's enforcement and community policing efforts help maintain a good "quality of life" atmosphere at Taconic State Park.

In the event of an evacuation, NYS Park Police serve as command, assisted by the Park manager and Park staff. A combination of police and staff driving to various sites and/or areas of the Park will inform patrons of the need to evacuate.

In addition to the NYS Park Police, NY Rt. 22 is often patrolled by New York State Police and County Sheriffs,

NYS DEC Environmental Conservation officers, and NYS DEC forest rangers. Local fire department staff assist TSP staff, NYS Park Police, and forest rangers with search and rescue operations.

The Copake Community Rescue Squad, the Northern Dutchess Paramedics, and the Northeast Fire Department Ambulance will respond to medical emergencies at the main part of TSP including at the campgrounds.

TSP is in process of formalizing its emergency rescue services with Massachusetts' Mount Washington State Forest and Bash Bish Falls State Park. This agreement builds on a long-standing partnership of rescue services at Bash Bish Falls, and coordinated efforts to manage visitors, parking, and other shared Park safety needs.

## Buildings

## Copake Falls Campground

Buildings in use and serviced by water and wastewater systems:

- 3 comfort stations, 1 Bash Bish shower house with restrooms (8 showers, 4 women's, 4 men's). All block construction. All served by leach field
- Campground shower house and comfort stations for A and B Camping Loop served by one septic field. C Camping Loop comfort station has its own leach field. All are served by pumped well water to a 60,000-gallon water tower
- Park residence – wood construction, historic from late 1800's/ Copake Iron Works era, with own leach field, treated water from surface pond
- Maintenance shop – wood construction with 1 steel I beam, from early 1800's/Copake Iron Works era, with own leach field, treated water from surface pond
- Park office – new wood construction, leach field with lift pumps, water from campground water tower
- Ore Pit Pond bath house – has bathrooms, but no showers and no electricity, shares septic field with Park office
- 3 wood construction Ironworker cabins (historic, from late 1800's/ Copake Iron Works era) with cesspool; cabins are in design for replacement; the cesspool is set for fall 2018 replacement to modern septic field.
- 5 wood construction Bash Bish cabins (historic, built by CCC) with water toilets only; cabins share leach field with Bash Bish shower building (block construction)
- 6 wood construction Greenwich Cottages (historic, built no later than 1920s), all served by common leach field; cottages have own well and water treatment system
- 1 wood construction laundry building – 2 washer and dryers for cottage laundry in Greenwich Cottage area

- 1 wood construction Greenwich water treatment building and file storage

Buildings in use but without water or wastewater facilities:

- 1 wood construction horseshoe building in Greenwich Cottage area - old camp cafeteria now used for storage
- Storage barn - houses snowmobile and lumber
- Bash Bish well pump-house and water treatment
- Campground well pump-house and water treatment

Buildings no longer in use:

- Old Greenwich cottage director's/ caretaker's residence
- Old Greenwich cottage #8
- Nature Center
- Old pool filter room

## Rudd Pond Campground

Buildings in use and serviced by water and wastewater systems:

- 3 comfort stations: day use area comfort station, campground shower house, and campground auxiliary bathroom
- Park residence, wood construction
- Day use area bath house, wood construction – no bathrooms but sink for lifeguards, plus electricity and changing stalls
- Well pump-house and chlorination, block construction
- Winter water treatment well and chlorination bunker

Buildings in use but without water or wastewater facilities:

- Office trailer, wood construction.
- Campground/VUF/ boat rental booth, wood construction.
- Old boathouse, wood construction – storage only.
- Storage baby barn, wood construction.
- New wood construction gazebo at waterfront.

## Parking Areas

***Copake Falls Area Parking***

Copake Falls day use area – New ADA VUF lot with combination permeable/ asphalt pavement; 95 spots total, including 4 ADA spots; built in 2013-14.

Copake Falls Park office – parking area with combination permeable/ asphalt pavement; 8 15-minute spots total, including 2 ADA spots, for registration / parking; plus, cuing lane for campers registering; built in 2011.

Rail Trail lot at Copake Falls – gravel, 20 cars, 2 ADA built 1998

Bash Bish lot – paved, not lined, 40 cars, 2 ADA

***Rudd Pond Area Parking***

Rudd Pond day use parking, grass, 100 cars, 1 designated ADA

Rudd Pond bath house, paved, 2 spots, 1 ADA

Rudd Pond boat launch, gravel, 4 spots no ADA

Shagroy Road trailhead, gravel, 4 spots, no ADA

***Parking at Other Trailheads***

Orphan Farm Rail Trail trailhead: paved and lined, 10 spots, 2 ADA, built 2014

Weed Mine Trail trailhead: gravel/grass, 6 spots, no ADA

Under Mountain Road HVRT trailhead: paved, not lined, 10 spots, 2 ADA, built 1998

High Valley hunting area: 6 spots, grass, no ADA

Valley View Rd. North HVRT: gravel, 4 spots, no ADA built 1998

Valley View Rd. South HVRT: gravel, 4 spots, no ADA built 1998

Alander Brook Trail trailhead: gravel, 4 spots, no ADA

Shackshober hunting area (seasonal): grass, 6 spots, no ADA

Quarry Hill Trail trailhead: gravel, 4 spots, no ADA

Sunset Rock Trail trailhead (seasonal): gravel, 4 spots, no ADA

Yellow Trail trailhead (seasonal): gravel 4 spots, no ADA

**Roads and Bridges**

There are approximately 2 miles of paved roadway in the Park. Routes 344, 62, 63, and other state roads are not included in this figure as they are not owned or maintained by OPRHP.

Bridges

- Over Bash Bish Creek to Bash Bish Cabins – Last inspected by NYS DOT 2015
- Kiddie Pool Foot Bridge
- Rail Trail Trestle over Bash Bish Creek – Assessment done 2016; in capital plans for preventive maintenance but still in good condition.

## Water Supplies

***Copake Falls***

There are 3 well pump houses and 1 surface water pump house. The campground well pump house pumps from 2 wells, chlorinates and pumps up to 40,000 gallons of water into an in-ground storage reservoir for gravity feed to most of the Park: campground, day use area, Park office, Ore Pit Pond bath house and Ironworkers cabins. The Bash Bish well pump house pumps and chlorinates from 1 well and serves five Bash Bish cabins and the Bash Bish shower house.

The Greenwich Area well pump house serves and chlorinates 6 cottages.

The Ironworkers Surface Water Pump House chlorinates and serves a Park residence and the maintenance shop. A Certified NYSDOH Grade C operator is required on staff. There are currently 3 certified operators in the Park.

***Rudd Pond***

Rudd Pond receives its drinking water from a pump house and well located near campsites 4 and 5. It has an above ground storage tower that holds 19,100 gallons which gravity feeds to the Park. Water is fed to the campground bathroom via a variable pressure pump. During the winter season, a separate well, located in a bunker by day use parking area, provides potable water to the Park residence only.

## Waste Water and Sewage Systems

The Park does not have any wastewater treatment plants. There are multiple leach fields and one cesspool

set for fall 2018 replacement to modern septic field.

***Copake Falls Septic Fields are as follows***:

- Ore Pit Pond bath house leach field – serves bath house and Park office via lift pumps.
- Campground shower house leach field – serves campground shower house, A loop and B loop comfort stations.
- C Station leach field – serves C comfort station. Note: there is an abandoned raised septic field between C and B loops.
- Newly completed septic field – serves all Ironworks Cabins.
- Bash Bish leach field – serves 5 cabins and Bash Bish shower house; sits just west of shower building; slated for replacement in Fall 2018.
- Greenwich leach fields: 2 separate fields, and 3 separate tanks – serve 6 cottages.
- Park Residence – 1000-gallon septic tank.

***Rudd Pond Septic Fields are as follows:***

Park Residence – 550-gallon septic tank and leach field.

Comfort Station – 2000-gallon septic tank and leach field.

Campground Shower House – 1000-gallon septic tank and leach field.

Campground auxiliary bathroom – leach field.

## Dams and Culverts

There are no dams in Taconic State Park, only controlled outflows of Ore Pit and Rudd Pond. There is a new large culvert over Ore Pit outflow, built in 2014. There are multiple culverts along the paved sections of the Harlem Valley Rail Trail, assessed in 2016 and on capital list for repair or improvement.

## Utilities

Phone – Fairpoint Communications

Internet – Fairpoint Communications

Electricity – NYSEG at Copake; Central Hudson at Rudd Pond.

Copake Falls – electric lines run into Park in several locations. Park office is served directly off of Rt.344. Campground lines come in off Rt. 344 farther east by the pump house. Here state-owned lines service upto the campground. Ironworkers cabins primaries served off Rt. 344. Bash Bish cabin area served off Central Hudson Lines off 344, cross Bash Bish Creek. Greenwich Cottage area, Park residence, historic Copake Iron Works and maintenance shop all served by primaries off Valley View Rd.

Rudd Pond – Lines come in off Dutchess County Rt. 62. Go underground from pole .25 mile to behind Rudd residence. Line goes on pole to office trailer, campground shower house and potable water well pump house. Lines are underground to contact booth, day use area bath house and auxiliary campground bathroom.

Fuel Oil Storage:

- Copake maintenance shop:
    - 1,000 exterior gasoline tank
    - 500 exterior 5% biodiesel tank (for vehicles)
    - 400 gal #2 Fuel Oil (indoor) for heating
- Park residence – (2) 275 gal tanks in basement #2 fuel oil (total 550 gal)
- Campground shower house – 275 gal #1 Kerosene
- Greenwich cottages – (4) 275 gal #1 Kerosene

## Maintenance

The maintenance shop is located at 47 Valley View Rd. Maintenance personnel maintain the grounds of both Copake Fall, Rudd Pond and Harlem Valley Rail Trail areas. This includes all mowing, weeding, snow plowing and hazardous tree monitoring and removal. They are also responsible for all upkeep and repair of structures, fences, playground and recreational equipment, as well as maintenance and service of all Park equipment.

## Solid Waste Management and Recycling Programs

The Park operates on a “Carry In – Carry Out” basis. However, Park staff collect all garbage left behind. Park staff haul garbage from 30-gallon cans to a centralized transfer station in the campground. From there waste is transported to the Iron Works area and is placed in a 40-yard solid waste dumpster. Solid waste is hauled from the Park by Royal Carting per current contract. On average, the Park hauls 50 tons of waste per year to the landfill.

All paper, cardboard and plastics are collected for recycling. The Park staff hauls recycling to a centralized transfer station in the campground. From there it is transported to the Iron Works area and is placed in a 10-yard recycling dumpster. Welsh Sanitation Service handles the Park’s recycling per current contract. Each year the Park hauls about 12 tons of mixed containers.

## Sustainability Programs

LED Lights have been installed in most light fixtures, on-demand propane water heaters have been installed in Rudd Shower-house and Copake Falls Park office. Recycling is available in the Copake Falls day use areas and Copake Falls and Rudd Pond campgrounds.

## Special Events/ Permits

Special Use permits are issued for running events, orienteering events, pony rides, commercial tents, bounce houses, wedding ceremonies, and various other unique activities.

OPRHP’s Park office issues annual hunting permits. Hunting is allowed in the Park provided an individual possesses a valid state hunting license (issued by DEC) and OPRHP’s regional permit. Hunting permits coincide with the hunting season for wildlife management unit NYS DEC Regions 3 and 4 with the exception that archery spring turkey hunting is allowed. About 100 hunting permits are issued annually. (See more about hunting under Recreational Resources and Activities section)

Geocaching is allowed at Taconic State Park but requires a permit.

TSP’s Brace Mountain is a favorite in the region for paragliding, an activity only permitted through the Brace Mountain Club, which holds the paragliding permit at the Park.

# Chapter 2 – Development of Alternatives

## Introduction

This chapter contains an analysis of the alternatives being considered for recreation resource development, natural and cultural resource protection, and operations. The alternatives considered and the analyses use resource inventory information, Park goals, core team discussions, and other factors. Findings from the analyses are used in identifying the preferred alternatives for each of the resource categories. The status quo, alternatives, considerations and preferred alternative for individual issues are described in narrative form. A complete description of the plan that results from the preferred alternatives is found in the master plan document.

The chapter is divided into three broad resource categories:

- **Strategies for Natural Resource Protection –** Alternatives that focus on strategies for stewardship of the Park's natural resources.
- **Strategies for Recreational Resource Protection –** Alternatives that primarily concentrate on the areas of the Park that support various recreation activities. Included in this category are the built facilities and consideration of different types of recreation activities.
- **Strategies for Operations, Infrastructure and Facilities –** Those buildings and management practices which provide support for the functioning of the Park.

# I. Strategies for Natural Resource Protection

Natural resource protection and management strategies are in place throughout TSP to protect the ecological communities and enhance biodiversity. Adaptive management strategies are needed to manage forest health, invasive species, and potential impacts to water quality or fish and wildlife. Management strategies must also consider potential future impacts to TSP, including different user groups, changing environmental conditions, effects of climate change, and the introduction of invasive species like the Hemlock Wooly Adelgid, Emerald Ash Borer and Asian Long-horned Beetle.

## *A) Bird Conservation Area (BCA)*

***Background***

OPRHP's BCA program aims to integrate bird conservation concerns into Park planning and management. A BCA designation includes a management guidance summary (MGS) to the Park which provides guidance relative to bird conservation not only for management purposes, but also for operations, research, education and outreach. Bird Conservation Areas are described under Article 11, Title 20 of the Environmental Conservation Law (ECL). The creation of a BCA does not preclude existing or future land use proposals, nor does it prohibit Park development or operational needs. The benefits of a BCA designation are numerous and include:

- Recognizing the importance of bird conservation in the Agency's planning process;
- Creating heightened public awareness of the Park's important bird communities;
- Creating funding opportunities for bird-related education, research and conservation;
- Providing technical assistance and resources for bird-related education, management, and research;
- Facilitating partnerships for bird conservation; and
- Highlighting the significance of birds to Park visitors.

There is currently no BCA at Taconic State Park. In order to qualify for creation of a BCA, a site must meet at least one of nine criteria outlined in the ECL. OPRHP staff evaluated available data on the bird populations and habitat within the Parks to determine if any of these criteria were met. Sources of this data include the NYS Breeding Bird Atlas 1980-1985 & 2000-2005; Massachusetts Audubon Breeding Bird Atlas 2007-11; Connecticut Breeding Bird Atlas; NYS OPRHP Staff Observation & Camera Trapping Results; NY NHP Bio-Blitz; Cornell Lab of Ornithology's Real Time Bird Checklist Program: eBird. Following data evaluation, OPRHP staff determined that Taconic State Park meets the following two BCA criteria:

1. Migratory Bird Concentration Area criteria

TSP is known to support eighty-six (86) species of Neotropical migratory songbirds during the spring and fall months. This count does not include other migrant birds such as hawks. There is a Hawk Watch in Massachusetts, across the border from TSP, indicating that the area is an important corridor for migrating raptors.

2. Diverse Species Concentration Site criteria

One hundred and sixty (160) native species of birds (and three non-natives) have been recorded in or near TSP. Of the 160 native species, some of which nest in the Park, thirty five (35) are listed as NYS Species of Greatest Conservation Need. Of the non-breeding birds recorded in or near the Park, one (1) is listed as NYS Endangered, four (4) are listed as NYS Threatened, ten (10) are listed as NYS Special Concern.

One hundred and fifteen (115) species of birds are reported as breeding based on seasonally timed observations, including resident populations with small local migrations. Species that are not known to be regular breeders in the area (e.g., Rusty Blackbird and Broad-winged Hawk) are not included in the total.

***Alternatives Considered***

### *(i) Status Quo – No changes to current lack of BCA designation*

**<u>Considerations</u>**

- Current status of bird species and bird populations will remain

- No additional recognition of bird species and bird populations will be created
- Current bird management strategies continue

### *(ii) Alternative 2 – Designate part of TSP as BCA*

**Considerations**

- TSP meets two BCA Criteria: migratory concentration site and diverse species concentration site (ECL §11-2001, 3)
- Creation of BCA does not preclude existing or future land use proposals
- OPRHP staff provides the Park with a Bird Management Guidance Summary (MGS) (Appendix C)
- Portions of the Park complex that meet the BCA criteria would be designated. Exclude, with a buffer around them:
    - Copake Falls developed area
    - Rudd Pond developed area, but keep Rudd Pond in the BCA
    - Portion leased by Catamount Ski Area
- Does not exclude paragliding take-off site as it is a natural area without any man-made infrastructure

### *(iii)Alternative 3 – Designate all of TSP as BCA*

**Considerations**

- TSP meets two BCA Criteria: migratory concentration site and diverse species concentration site (ECL §11-2001, 3)
- Creation of BCA does not preclude existing or future land use proposals
- Include entire TSP in BCA designation:
    - TSP in its entirety is home to high quality intact habitat with high biodiversity
    - There are significant bird sightings throughout the Park, including in developed areas
- Birds fly and are not restricted to man-made boundaries

***Preferred Alternative***

**The preferred alternative is (iii) Designate all of TSP as BCA**. This alternative will provide the Park statewide recognition for the importance of its bird habitat. See Figure 11 for a map of the Bird Conservation Area, and Appendix C for the BCA Management Guidance Summary.

## *B) Natural Heritage Area (NHA)*

***Background***

The goal of the New York Natural Heritage Areas Program (NHA) is to “provide state land managers with a tool to highlight and ensure the protection of rare animals, rare plants, and significant natural communities on state-owned land.” The NHA Program was established in 2002 in amendments to the Environmental Conservation Law (§11-0539.7). An NHA designation does not preclude existing or future land use proposals, development or operational needs. In order to be eligible for NHA designation, an area must meet any one of the following criteria (DEC, 2016c):

- Provide habitat for "endangered species" or "threatened species" of animals or plants
- Provide habitat for rare species as defined by the NY Natural Heritage Program (NY NHP)
- Contain "significant ecological communities" where such term means all rare ecological communities that are rare in the State as well as outstanding examples of more common communities

The Park contains a number of Natural Heritage elements, and meets the criteria for NHA status (Lundgren, 2016). For a description of the ecological communities, flora, fauna and rare species at TSP see Chapter 1 of this document. On a state-wide basis, the Park is in the top third of rankings among all State Parks by the NY

Natural Heritage Program, and top three Parks in the Taconic Region. Statewide, the proportion of high quality habitat for biodiversity relative to the Park's overall size ranks TSP in the top 10% among all state parks. This standing is even more significant considering that other Parks in that top bracket have federally endangered species, giving them extra points in ranking, and TSP does not. The Park earned its high standing owing to the condition, connectedness and size of its ecosystems and viable populations of rare species (Conrad et al, 2016).

Because of the diversity of Natural Heritage elements and the additional biodiversity values represented at this Park, the New York State Natural Heritage Program recommends that the entire Taconic State Park be considered for NHA status (Lundgren, 2016).

***Alternatives Considered***

### *(i) Status Quo – No NHA will be created*

**Considerations**

- All Natural Heritage elements will continue to be recognized as significant to the biodiversity of TSP and NY State regardless of NHA designation
- No additional recognition of Natural Heritage elements will be created

### *(ii) Alternative 2 – Designate part of TSP as NHA*

**Considerations**

- Creation of NHA does not preclude existing or future land use proposals or park development
- All Natural Heritage elements in TSP will continue to be recognized as significant to the biodiversity of TSP and NY State
- Exclude, with a buffer around them:
    - Copake Falls developed area
    - Rudd Pond developed area, but keep Rudd Pond in NHA
    - Portion leased by Catamount Ski area
- Does not exclude paragliding take-off site as it is a natural area without any man-made infrastructure

### *(iii)Alternative 3 – Designate all of TSP as NHA*

**Considerations**

- Creation of NHA does not preclude existing or future land use proposals or park development
- All Natural Heritage elements in TSP will continue to be recognized as significant to the biodiversity of TSP and NY State
- Natural communities and the range of Natural Heritage elements are dynamic. Hardline boundaries that exclude parts of TSP from NHA designation will in short time divide the shifting Natural Heritage elements and communities of the Park

***Preferred Alternative***

**The preferred alternative is (iii) Designate all of TSP as NHA**. The creation of the Natural Heritage Area will help emphasize the importance of TSP's many significant ecological communities. Figure 12 illustrates the area that is chosen.

## *C) Park Preserve or Park Preservation Area*

***Background***

A Park Preserve encompasses the entire Park. It assures protection of wildlife, flora, scenic, historical and archeological sites that are unique and rare in New York State. A Park Preservation Area (PPA) is a designation for a defined area within the Park. Its purpose is to assure protection of outstanding ecological values, including assemblages of plants and wildlife that are unique or rare in New York State. Both Park Preserve and PPA designations establish parameters for levels and types of use and development in TSP.

The park possesses areas of outstanding ecological values and assemblages of flora and fauna that are unique or rare in the state: wetlands, fens, large intact forest, significant ecological communities, rare plants and animals. The NY NHP recommends that Taconic State Park receive the Park Preserve designation. Significant portion of TSP ranks in the top 10% in NHP's ranking of state Parks. This standing is even more significant considering that other Parks in that bracket have federally endangered species, giving them extra points in ranking, and TSP does not. TSP earned its top tier standing owing to the health, richness and significance of its ecosystems. This could warrant protecting the Park with Park Preserve or PPA designation. Also within TSP's borders is the Copake Iron Works listed on the New York State and National Registers of Historic Places (2007) and designated as a Hudson River Valley National Heritage Area Site (2016), a cultural asset that could warrant protecting TSP as a Park Preserve.

TSP is also part of landscape-scale priority conservation areas spanning several states (See also Chapter 1, 'Designations'). These designations are a testament to the critical role TSP plays in ecosystem and biodiversity conservation on a regional scale, and could warrant protecting the Park with Park Preserve or PPA designation. For example:

- TSP represents a major portion of the Taconic Mountain Significant Biodiversity Area that is recognized by the DEC's Hudson River Estuary Program;
- Several sections within TSP are recognized by the New York Natural Heritage Program as Important Areas for Rare Species (aka Areas of Known Importance for Rare Animals);
- TSP is a part of the Harlem Valley Calcareous Wetlands Complex that is recognized by the DEC's Hudson River Estuary Program as a Significant Biodiversity Area;
- TSP is part of a 40,000-acre contiguous Taconic-Berkshire Landscape Complex that is one of the most intact forested landscapes within the Lower New England / Northern Piedmont Ecoregion (NatureServe, 2016), spanning from Maine to New Jersey. This complex has been recognized by TNC, NYS DEC, HREP, USFWS, and others as a Northeast regional priority for significant habitats and biodiversity areas;
- The Taconic Region is considered a multi-state Priority Landscape Area in the Forest Action Plans of New York, Massachusetts, Vermont and Connecticut;
- The tristate Taconic Ridge, including its portion in TSP, is a Forest Legacy Area as designated by the US Forest Service.

***Alternatives Considered***

### *(i) Status Quo – No changes to current absence of designation*

**Considerations**

- Current status of wildlife, flora, scenic, historic and archeological resources will remain
- The lack of designation does not detract from the significant biological diversity in TSP nor from the importance of the large contiguous tract of forest the Park provides
- SEQR reviews will continue
- Does not legally recognize significant ecological, historic and archeological resources
- Sensitive areas could continue to be susceptible to more intensive use/ development pressure

### *(ii) Alternative 2 – Designate part of TSP as PPA*

**Considerations**

- Would aim to leave areas with more intensive uses out of PPA, thus ensuring that PPA includes only the most notable resources of the Park. Would exclude, with a buffer around them: Copake Falls developed area; Rudd Pond developed area, with Rudd Pond in BCA; Catamount Ski area; and Working agricultural lands (can be added to PPA at a time when they are no longer working lands)
- The Park's long and narrow linear shape, its unique topography of significant slopes and ravines, and the Park's patchwork of parkland and farmland, with intermittent private land, makes it difficult to designate only a portion of the Park as a PPA

- PPA would protect the most significant ecological values, including assemblages of plants and wildlife, that are unique or rare in TSP, region, and New York State
- Passive and low intensity recreational activities would be supported
- Impacts to resources by more intensive recreational uses would be minimized

#### *(iii)Alternative 3 – Designate all of TSP as Park Preserve*

**Considerations**

- TSP is in the agency's top 10% ranking for biodiversity among all NY State Parks (Conrad et al, 2016)
- Recognizes the importance of the Park as a whole, instead of its individual separate areas
- Assures protection of the entire Park's wildlife and flora, as well as its scenic, historical and archeological sites that are unique and rare in NYS
- Ensures TSP as a whole is safeguarded against incompatible uses in the future
- Passive and low intensity recreational activities will be supported
- Potential moderate- and high intensity activities may be limited

***Preferred Alternative***

**The preferred alternative is (i) Status Quo – No changes to current absence of designation.** It was determined by the planning team that at this time the Bird Conservation Area and Natural Heritage Area designations were sufficient to highlight the Park's unique resources. The lack of Park Preserve or Park Preservation Area designation does not alter the Park's commitment to its exceptional natural resources, and it will continue to steward them with utmost sensitivity.

### *D) Invasive Species*

***Background***

A statewide invasive species control program (ISCP) has been established in OPRHP with goals to preserve biodiversity and reduce the threat of invasive species to the quality of the natural, recreational, cultural, and interpretive resources within state Parkland.

OPRHP staff have identified several invasive species present in the Park and have made recommendations for the management of these species. Control of the spread of invasives is particularly important as they not only impact recreational opportunities, but also threaten the Park's native biodiversity and ecosystem function, impact rare species and scenic values, as well as increase the frequency of hazardous tree removals and increase erosion.

Terrestrial Fauna

Several invasive forest pests are either in the Park or on the brink of breaching its borders. These are also listed in Chapter 1, under 'Invasive fauna; Terrestrial.' Firewood can be a source of invasive insects which can kill trees. Although Emerald Ash Borer (*Agrilus planipennis*) has not been found in the Park as of yet, the Park is in the quarantine area for this pest and follows a protocol for firewood described in the Camping Procedures & Reference Manual (Revised August 2016) Chapter III, Subchapter K, paragraph 3. Additionally, the Park and the agency follow all regulations on firewood and wood transportation issued by the NYS DEC.

Aquatic Fauna

The invasive Chinese Mystery Snail (*Bellamya chinensis*) has been identified in Weed Mines Pond.

Flora

At least twenty-three terrestrial and four aquatic species of invasive plants have been documented in the Park. These are listed in Chapter 1, Table 3.

***Alternatives Considered***

#### *(i) Status Quo – No changes to current management of invasive species*

**Considerations**

- TSP does not have a comprehensive management plan to manage invasives
- TSP has limited staff and budget to target invasives management
- Some species are being detected by OPRHP staff and by public
- There are no coordinated measures in place for Early Detection Rapid Response
- No plan for control of aquatic invasive in Weed Mines Pond
- Hemlock Wooly Adelgid is already in the Park. Continue to monitor for HWA. Statewide Invasives Task Force staff plans to introduce controls for HWA
- The arrival of Emerald Ash Borer (EAB) is inevitable in the Park, but vigilance to prevent the arrival of Asian Long-horned Beetle (ALB) is critical. Continue to monitor for EAB and ALB at both campgrounds. ALB is a poor disperser (it does not move far), so controlling transport of firewood can prevent unwanted spread of this and other pests
- If/ when Emerald Ash Borer or Asian Longhorn Beetle are found in the Park, work with agencies to follow containment and control recommendations
- Continue to enforce all current OPRHP Camping regulations pertaining to firewood and NYS DEC firewood transport regulations
- DEC monitors the spread of Southern Pine Beetle in the Hudson Valley and in Taconic State Park by use of traps

### *(ii) Alternative 2 – Develop comprehensive invasive management plan, including early detection and rapid response, and follow recommendations of OPRHP staff and biologists.*

**Considerations:**

- Addresses the public's and OPRHP staff's concerns about current invasive species at TSP, and addresses anticipated future impact of invasives at TSP
- Conforms with TSP's vision and goals to safeguard the natural resources of TSP
- OPRHP's statewide Invasives Task Force is developing an invasives management manual. Work with OPRHP's Invasives Task Force, and integrate their management manual to develop TSP's Invasives Management Plan
- Establish Early Detection, Rapid Response protocol for the Park
- Develop priorities for management based on assessments of various factors including ease of control, potential environmental impacts, potential infrastructure impacts, and the level of threat to human health
- Park personnel will be trained by agency invasive species team to develop management plan and strategies
- Invasives management plan will inform how to:
    - Select areas to prioritize
    - Work with partners
    - Mobilize volunteers
- Explore funding availability to create a comprehensive invasive management plan for TSP
- Rely on Invasive Task Force' guidance in incorporating other invasives management plans by OPRHP in the Hudson Valley
- Work with surrounding landowners and organizations to make sure land use practices do not

undermine the health of TSP's natural communities

- Current control measures will continue
- Invasives management plan will include mapping of invasives. iMapInvasives has compiled a lot of data, and NYNHP has advised on priority areas for invasives monitoring and control, but more detail and updates are needed to inform strategies and actions
- Develop plan for boat washing stations to control spread of aquatic invasives
- TSP could incorporate invasives management into its educational programming
- Concentrated observation is important for early detection

#### *(iii)Alternative 3 – Coordinate invasives control efforts with neighboring MA and CT*

**Considerations:**

- Taconic State Park borders MA and CT with similar documented invasives problems
- Hiking trails and other recreational opportunities link the three states and increase the probability of introducing invasives from state to state
- Information exchange among the states and coordination of efforts is needed for effective invasives control

***Preferred Alternative***

**The preferred alternative is a combination of (ii) Develop comprehensive invasive management plan, including early detection and rapid response, and follow recommendations of OPRHP staff and biologists; as well as (iii) Coordinate invasives control efforts with neighboring MA and CT**. The planning team selected these alternatives because they allow for the current management protocol to be expanded with new techniques and strategies that will detect and respond to invasive species more effectively and on a timely basis.

### *E) Wildlife Resources*

***Background***

Fish and wildlife and significant habitats are important and valuable natural resources of the State Park system. Of the nearly 350,000 acres of State Park lands and waters statewide, approximately 85% are considered to be "natural habitat." These exceptional habitats in support an extraordinary diversity of fish and wildlife in the State Park system and this diversity is considered to be an important component of NY State's biodiversity. This diversity of wildlife is also a recreational resource, enhancing Park visitors' experiences statewide.

As a general rule, OPRHP follows a "passive management" approach, allowing natural processes to maintain wildlife populations in ecological balance. However, there are certain circumstances when active management is necessary, such as when improving habitat through various methods or when managing specific wildlife populations. Additional information about wildlife management in the State Park System can be viewed by going to the following page: http://nysParks.com/inside-our-agency/documents/PolicyOnFishAndWildlifeManagement.pdf.

The varied habitats at Taconic State Park offer excellent recreational opportunities for wildlife viewing, hunting, and fishing. Park patrons can observe a variety of breeding and migratory birds and non-game species, as well as pursue fish and game species during their respective seasons. The Park's trout streams have drawn anglers since the early 1900s and continue to provide remarkable fishing opportunities, while the Park ponds offer angling opportunities for trout, largemouth bass, chain pickerel, and panfish. Hunting is allowed in the Park by permit only, issued by OPRHP's Park office, and hunting implements and seasons may vary from the published statewide hunting regulations.

***Threats***

Threats to the Park's fish and wildlife populations come in many forms, from invasive species introductions, habitat fragmentation, disease, roads, and human-related activities. Invasive plants and insects alter fish and

wildlife habitat and, although some invasives are used as food and cover by some species, altered habitats are generally considered to have negative impacts on fish and wildlife. Although active wildlife disease monitoring is not necessary in the Park at this time, diseases in wildlife are noted when observed and reported to the DEC or other appropriate contacts when necessary. Road mortality is considered a threat to the Park's wildlife, especially to species that have low reproductive potential and/or cannot cross roads quickly (e.g., salamanders crossing roads to breeding pools during rainy spring nights). Other human related activities considered to be a threat to sensitive species are intentional disturbance, illegal killing, and illegal collection.

***Alternatives Considered***

### *(i) Status Quo – Continue passive management of wildlife species and wildlife habitat in the Park*

**Considerations**

- Aligns with the agency's preferred approach to management, allowing natural processes to maintain wildlife populations in ecological balance (http://nysParks.com/inside-our-agency/documents/PolicyOnFishAndWildlifeManagement.pdf)
- Continues to provide an enjoyable recreational experience for Park visitors
- Park currently incorporates recommendations of OPRHP and DEC staff and wildlife biologists into its wildlife management
- TSP's current passive management of natural resources, without a formal natural resources management plan, has been sufficient to maintain high biodiversity

### *(ii) Alternative 2 – Explore active monitoring for New England cottontail in coordination with DEC & NYNHP*

**Considerations**

- The New England cottontail is a High Priority Species of Greatest Conservation Need and until 2016 was a candidate for Federal Listing as an endangered or threatened species. The main reason for not listing this native rabbit species was the commitment on the part of the six states, including NY, within the species range to enact various conservation activities for the species as outlined in the Conservation Strategy for the NEC. This is in collaboration with USFWS, NYS DEC & NYNHP
- A more active monitoring of New England cottontail in the Park will benefit this species and provide data for continued conservation efforts
- Aligns with the agency's mission to be a good steward of its natural resources as part of its Natural Resource Stewardship initiative, in coordination with DEC
- Small game hunting at TSP will require coordination with New England cottontail protection, in coordination with DEC

**The preferred alternative is a combination of (i) Continue passive management of wildlife species and wildlife habitat in the Park, and (ii) Explore active monitoring for New England cottontail in coordination with DEC and NYNHP*.*** In general, current passive wildlife and natural resource management strategies have been sufficient and will continue to maintain high quality, contiguous habitat for this species and overall biodiversity at the Park. TSP works collaboratively with natural resource professionals, led by OPRHP, as well as partner organizations in the region such as DEC, Trout Unlimited and others. Increased monitoring for New England cottontail in partnership with DEC and NYNHP will provide additional protection for this High Priority Species of Greatest Conservation Need. The Park's long-term strategies for protecting its natural resources are in line with its current goals, and at this point do not require a comprehensive natural resources management document.

## *F) Firewood Procedures*

***Background***

The introduction of invasive species impacts local economies and natural resources. Transportation of firewood is a major channel by which invasive insects like the Emerald Ash Borer, Hemlock Woolly Adelgid,

and Asian Long-horned Beetle are introduced into new areas. These pests could have a significant impact on Park resources.

OPRHP has issued the Camping Procedures and Reference Manual (Revised in August 2016 http://nysParks.com/inside-our-agency/documents/GuidancePolicies/CampingManualAug192016.pdf) which specifies the requirements for bringing firewood into New York State Parks. These requirements encourage campers to use firewood sold by the Park or local vendors outside the Park. The procedures also mirror the New York State Department of Environmental Conservation's regulations established to help slow the spread of these invasive insects. Under the OPRHP and DEC regulations, it is illegal to bring untreated firewood into New York State and into New York State Parks. Furthermore, it is illegal to transport untreated firewood more than 50 miles from its source. A receipt or self-issued certificate stating that the firewood has been properly treated is required as proof of source when carrying firewood into the Park from further than 50 miles away.

The Park sells firewood to campers that was split from trees removed due to hazardous tree mitigation efforts.

NYS Park Police enforce the OPRHP and DEC Firewood Regulations at this Park and NYS Parks statewide.

***Alternatives Considered***

#### *(i) Status Quo – No change to policy on firewood use and transportation*

***No alternatives to the status quo were considered.*** The Park will continue to provide firewood for campers through a concessionaire. The core team feels that this is the best alternative for protecting the Park's natural resources and for complying with OPRHP and DEC Firewood Regulations.

### *G) Rudd Pond Management*

***Background***

Rudd Pond is a shallow natural pond that was originally enlarged by a dam, reducing the pond's surrounding wetlands to its southern and northern ends. The pond has been transitioning back to a wetland for decades. Excessive aquatic plant growth has been a documented public and agency concern dating back to at least 1948.

Rudd Pond is currently in a mid-mesotrophic/ low eutrophic state, which means it has beds of submerged aquatic plants and medium levels of nutrients, with oxygen levels in the water decreasing at lower depths.

To date, the agency has employed a variety of management techniques to control invasive aquatic plant growth in order to keep this water body a pond suitable for recreational activities:

- winter drawdown
- hydro raking
- dredging
- weed harvesting
- benthic mats
- Triploid Grass Carp (TGC)

The agency's Division of Evironmental Stewardship and Planing (ESP) has conducted an extensive assessment of Rudd Pond over the past several years, including a review of previous assessments dating back to 1985, and management actions taken.

Based on experience at Rudd Pond, ESP does not recommend drawdown or dredging. The agency attempted a 2.5-foot winter drawdown of the water level in 1984 in order to weaken invasives by exposing them to winter frost, but it was unsuccessful in reducing their volume. Native flora and fauna were negatively affected by the drawdown, making repeated drawdown not a viable tool. Dredging was performed at the pond at least once, in 2002. This technique is a high cost alternative that needs to be performed regularly and proper disposal of dredged material is an added concern. Repeated dredging to a depth that would limit plant growth and provide recreational swimming at Rudd Pond can have a detrimental effect on the entire pond ecosystem, making it not a viable option.

ESP cautions against other management techniques not yet used at the pond: herbicides or biocontrol. Herbicide application requires multiple treatments at high cost and this technique indiscriminately reduces or eliminates all aquatic vegetation. Large plant die-off can deplete oxygen and increase nutrients, resulting in fish kills and algal blooms, requiring suspension of swimming activities. Herbicide application for these

reasons is regarded as a last resort. Biocontrol is a new technique, still in its experimental phase, which employs natural aquatic organisms such as aquatic weevils, aquatic moths, and caddisflies to reduce plant growth and density. Use of a natural biocontrol could have beneficial long-term impacts, and some of these organisms may pre-exist in the waterbody and be able to adapt to changing conditions. However, the reduction in plant density would occur slowly and the initial cost to introduce these organisms would be extremely high. Due to the current cost and ongoing research, this method is not recommended at this time. However, OPRHP should keep informed of any advances in the research.
In order to provide swimming at Rudd Pond, TSP has been employing a suite of management techniques, and is actively seeking additional alternatives.

The option to allow the pond to naturally transition to a wetland would have the least environmental impact. It would also have the lowest cost to operations and maintenance (staff time and expenses), and would be a viable long-term choice. However, this option would result in phasing out swimming and boating at the pond.

For information on swimming at Rudd Pond see discussion in this chapter below, under 'Swimming at Rudd Pond.'

***Alternatives Considered***

### *(i) Status Quo – Continue current management of aquatic plants*

**Considerations**

- Current management options to reduce aquatic plant growth include:
    - Targeted use of weed harvester
    - Targeted installation of benthic mats (aka lake bottom mats)
    - Use of Triploid Grass Carp (TGC)
- All three management tools are short-term solutions. They can be extended long-term if necessary funding and staffing are available
- Use of harvesting equipment requires a large investment of staff time and finances, as well as intensive, ongoing maintenance:
    - $150,000 minimum for new weed harvester including trailer, conveyor, and shipping
    - Weed harvesting, depending on the growing season and equipment, has to occur weekly or biweekly using a weed harvester because the harvester cuts plants to only 4-6 feet below surface
    - Impact of harvesting is pond-wide and immediate, albeit short term. A weed harvester would be permitted to harvest a larger area since it is not disturbing the bottom sediment.
    - Requires ongoing equipment maintenance
    - Proper disposal of harvested material is added concern
    - Fragmentation from harvesting, i.e. cut segments of plants, spreads invasives
    - This is a broad-spectrum management technique, impacting native plants along with invasives
- Benthic mat operations and maintenance costs are relatively low:
    - Type of mat is critical to success. Lake Bottom Blanket shows the most promise, based on ESP's 3 years of pilot studies, among benthic mats. It has the easiest and fastest installation and removal rate, requires only 2 staff without need to dive
    - Lake Bottom Blanket and rebar cost less than $4,000
    - Lake Bottom Blankets are limited to beach area
    - Impact of mats is immediate but short term

  - This is a broad-spectrum management technique, suppressing native plants and invasives, as well as macroinvertebrates

- Operations and maintenance costs for TGC are relatively low:
  - Cost for 620 TGC and outlet repair is under $6,000
  - Requires some maintenance of outlet to prevent TGC escape
  - Requires monitoring for impact (performed by ESP staff) on pond health
  - Impact is pond-wide, gradual, relatively short term
  - This is a broad-spectrum management technique, impacting native plants as well as invasives
  - Requires a NYS DEC permit

### *(ii) Alternative 2 – Explore alternatives to manage aquatic plants*

**Considerations**

Hydro raking:

- This technique cuts aquatic vegetation close to the root, which increases turbidity, impacts bottom fauna, and results in fragmentation of invasive plants and their spread
- Difference between the impacts of weed harvester vs hydro rake is small. A weed harvester could be used over a larger area of Rudd Pond but would need to be used more frequently (once or twice a week) whereas hydro rake could be used less frequently (monthly) but in a smaller area, around the swim area and boat launch
- Like the weed harvester, this is a high cost alternative, and proper disposal of raked material is an added concern
- A hydro rake was used at Rudd Pond in 2010 on rented equipment

Aeration/ Bioaugmentation:

- This is a new technique, still in its experimental phase, which employs natural aquatic organisms to decrease nutrients in the water therefore decreasing overall plant growth
- This is a high cost alternative, approx. $90,000, if monitoring is performed by the agency (ESP), and factoring cost for energy usage or solar. Staff training is an added cost
- Aeration/ bioaugmentation has low operations and management requirements, limited to checking aerating machinery on land for proper operation
- The impact of this technique is pond-wide, relatively fast (possibly within a few weeks or months), and lasting long term
- This is a broad-spectrum technique, decreases nutrients in the water therefore decreasing overall plant growth
- Requires a NYS DEC permit
- Will be reviewed separately by the Agency prior to implementation

Biocontrol:

- Keep informed of advances in the research on biocontrol to assess if it becomes a suitable alternative

Phragmites control:

- Remove the non-native invasive Phragmites to not only slow down the rate of aquatic vegetation growth along the shallow shoreline areas of the Pond, but also allow for restoring native vegetation
- Requires a NYS DEC permit; may also require an Army Corps of Enginners permit as well

#### *(iii)Alternative 3 – Allow Rudd Pond to transition to wetland*

**Considerations**

- Rudd Pond will continue to naturally transition to wetland
- No or very low operations and management costs
- Fishing and boating can continue for a period
- Best approach from natural resource stewardship point of view
- Provides educational and interpretive opportunities
- Offers a transitioning habitat and aesthetic from open water to wetland flora and fauna

***Preferred Alternative***

**The preferred alternative is a combination of (i) Continue current management of aquatic plants, and (ii) Explore alternatives to manage aquatic plants.** The planning team selected this combination because it allows for the continued use of Rudd Pond for recreational swimming and boating which is currently a priority for the Park. Exploring alternative methods to control aquatic plant growth allows the Park to consider other existing and emerging management techniques. However, it is uncertain how much financial investment will be available to the Park to hold back Rudd Pond transitioning to a wetland. While alternative (iii) would be the preferred alternative from an environmental and financial viewpoint, over time it would eliminate recreational use of the pond.

### *H) Agricultural Lands of TSP*

**Background**

The lower elevational sections of the Park are in a landscape that has been historically used for farming and still contains considerable acreage in agriculture. These active agricultural fields are in the western edge of the Park boundary. The Park and the Taconic region would like to review the management of TSP's agricultural lands with sustainability and habitat diversity in mind. OPRHP is currently in the process of formulating statewide guidelines for agricultural land management in NY State Parks. TSP intends to conform to those statewide guidelines.

***Alternatives Considered***

#### *(i) Status Quo – No changes to agricultural land management*

**Considerations**

- Currently the Park does not have agricultural land management guidelines for sustainability and to minimize impact on surrounding habitat
- Currently the Park does not have agricultural land management guidelines for consistency of operations and monitoring

#### *(ii) Alternative 2 – Review agricultural land management to conform to statewide guidelines*

**Considerations**

- Incorporate forthcoming statewide agricultural land management guidelines into TSP's agricultural land management strategies as soon as they become available
- Manage TSP's agricultural lands with sustainability and habitat diversity in mind, in accordance with statewide management guidelines
- Minimize impact of agricultural land management on surrounding habitats, in accordance with

statewide management guidelines

- Streamline management of TSP's agricultural lands for consistency of operations and monitoring, in accordance with statewide management guidelines
- Allows the Park to conform to TSP's vision to be a steward protecting and enhancing its natural habitats

***Preferred Alternative***

**The preferred alternative is (ii) Review agricultural land management to conform to statewide guidelines.** The selected alternative allows the Park and the region to draw from the forthcoming statewide OPRHP agricultural land management guidelines that will provide strategies for sustainability, impact mitigation, and consistency of operations. The selected alternative also conforms to TSP's vision to be a steward protecting and enhancing its natural habitats.

# II. Strategies for Recreational Resource Protection

## *A) Day Use Area at Copake Falls*

***Background***

TSP's day use area is very popular with its patrons. The Park's Copake Falls area used to have a basketball court, but currently does not have a sport court or field. TSP recently installed a large picnic pavilion that is at full capacity on weekends. It has been documented through surveys of users and at the TSP Public Information Meeting that there is strong interest in a sport court area at the Park, as well as in additional designated picnic space. There is also documented need through Park user surveys for a group fire ring. Finally, the Copake Falls' current playground does not offer play opportunities for children younger than five.

***Alternatives Considered***

### *(i) Status Quo – No changes to day use area at Copake Falls*

**Considerations**

- Does not align with the vision for the Park
- Patron satisfaction will not improve

### *(ii) Alternative 2 – Improve day use area*

**Considerations**

- Generate an overall Site Plan for all day use recreation needs
- There is demand by Park patrons for a variety of sport courts
- Analyze the recreation needs of day users and campers for types of sport courts: soccer, basketball, beach volleyball, softball, horseshoe games, bocce, etc.
- Provide:
    - sport court near picnic area for volleyball, bocce, and/or horseshoe games
    - court for basketball
    - multi-use field for a variety of sports
- Provide Group Fire Ring that accommodates approx. 20 people; could double as an educational facility
- Expand existing playground to include play equipment for 3-5 year olds
- Incorporate a designated ice skating rink to expand winter recreational opportunities
- Requires some ground disturbance and paving
- Use impervious paving whenever necessary

***Preferred Alternative***

**The preferred alternative is (ii) Improve day use area.** The planning team selected this alternative because it will provide numerous recreational opportunities for both day use and overnight visitors, pending available funding. The Park will benefit from assessing visitor needs and a Site Plan that addresses them all. The Group Fire Ring can also serve as a space for environmental education programs. Fields and courts will restore an amenity that used to be available to Park patrons, with the further benefit of accommodating diverse sports and team games.

## *B) Camping at Copake Falls*

***Background***

Taconic State Park's original Copake Falls camping area was established in the 1920s. Demand for camping opportunities drastically increased since that time. Copake Falls now has 104 sites. The current camping loops are heavily overcrowded, compacted and/ or eroded, and lost most of the understory vegetation that could provide privacy. The number of showers, toilets, and other camping infrastructure is outdated and insufficient.

It has been documented through surveys of users that there is demand for campsites with privacy, electric and water service, sewer hook-up, and for group camping opportunities. The topography and soil conditions at Copake Falls strictly limit available alternatives for improvements and upgrades.

TSP has already begun plans to improve camping facilities and infrastructure. A possible location for an additional camping loop has been identified. New loop will allow the Park to maintain the same number of campsites while reducing their density, as well as provide power, water, and sewer access.

***Alternatives Considered***

### *(i) Status Quo – No new campsites or camping loops*

**Considerations**

- There is no demand for additional sites
- Does not address overcrowding of A and B loops
- Does not address continued compaction and loss of understory planting that could mitigate erosion and provide privacy
- Patron satisfaction will not improve

### *(ii) Alternative 2 – Build new camping loop with same total of campsites*

**Considerations**

- There is no demand for additional sites
- Reduces overcrowding in A and B loops
- Campsites can be better organized
- Allows for bigger RV sites
- Addresses patron desire for full-hookup sites to be provided in new loop. Providing electricity will minimize generator use. Electricity will be provided in new Loop E, and possibly in existing Loops C and D.
- Reduces continued soil compaction
- Allows for revegetation between campsites that can provide erosion control and privacy for campers; designate areas where tent cannot be erected to allow revegetation
- Monitor camping loops for revegetation and soil compaction
- New campsites will be on gravel, no platform sites
- Allows for addition of a dog run for campers
- Requires a new shower house. Shower numbers will double. Location for new shower house, septic,

and absorption field has been chosen

- Existing comfort stations can be renovated one at a time
- Well for new camping loop will need a pump station
- Some new campsites might require removing trees that were CCC spruce plantations
- Requires some ground disturbance

#### *(iii)Alternative 3 – Build new camping loop with addition of some campsites*

**Considerations**

- Geography of the Park limits the number of campsites
- Soil impermeability limits the Park's ability for new septic and bathrooms.

#### *(iv)Alternative 4 – Build ADA compliant campsites*

**Considerations**

- New camping loop will include ADA compliant campsites as required by law

***Preferred Alternative***

**The preferred alternative is a combination of (ii) and (iv): Build new camping loop with same total of campsites that includes ADA compliant campsites.** The planning team selected these alternatives because they meet multiple master plan goals. The Status Quo does not address overcrowding and other Park patron needs, and alternative (iii) proposes unnecessary increase of camping sites. Spreading out the same number of campsites over a larger camping area, including ADA compliant campsites, and installing new camping infrastructure, pending available funding, provides the amenities the Park patrons require.

### *C) Ironworkers Cabins at Copake Falls*

***Background***

The three Ironworkers Cabins date back to mid-19$^{th}$ century, and are among the resources of the Copake Iron Works Historic District. Aside from minor changes, these cabins have not received any updates. They are considerably aged and in need of major renovation. It has been documented through surveys of users that there is demand for the Ironworkers Cabins at the Park. Even in their current state, the cabins are rented most of the season. There is need for additional water- and sewer infrastructure. The topography and soil conditions at Copake Falls put strict limitations on alternatives for improvements and upgrades.

TSP has begun plans to improve facilities and infrastructure at these cabins. Given the National Historic Registry status of the Ironworkers Cabins, all effort will be made to preserve the cabins' historic features while providing safe and comfortable accommodations for Park patrons. Undertakings involving these cabins must follow OPRHP policy regarding historic preservation and implementation of Section 14.09 of NYSPRHP Law.

***Alternatives Considered***

#### *(i) Status Quo – No improvements to Ironworkers Cabins*

**Considerations**

- Does not align with the vision for the Park
- Does not meet the statewide goal of fixing aging infrastructure
- Will not improve patron satisfaction
- Will allow a significant historic and recreational resource of the Park to further deteriorate

#### *(ii) Alternative 2 – Improve Ironworkers Cabins*

**Considerations**

- The Ironworker Cabins are in the worst condition of the Park's three cabin groups, and need the most immediate attention

- There is documented demand for the Ironworkers Cabins
- Septic improvements are underway, construction began in Fall 2016
- Cabins will be improved one at a time due to demand for accommodations by patrons as well as the Park's limited finances. One duplex will be renovated first and made ADA compliant, followed by the triplex, and finally by the second duplex.
- Aligns with the vision for the Park, and the statewide goal of fixing aging infrastructure

***Preferred Alternative***

**The preferred alternative is alternative (ii) Improve Ironworkers Cabins.** The planning team selected this alternative because it safeguards a resource of the New York State and National Register listed Copake Iron Works historic district, and directs the Park toward its vision. Not improving the cabins will result in further deterioration and inappropriate conditions. The Park is committed to preserving these historic cabins, pending available funding, and providing comfortable accommodations to patrons staying overnight to meet their expectations.

## *D) Bash Bish Cabins at Copake Falls*

***Background***

The five Bash Bish Cabins were constructed by the Civilian Conservation Corps in the 1930s. They are tucked away in the woods along a trout stream, on a slope, accessible by a long series of stairs. These cabins are considerably aged and in need of major renovation. It has been documented through surveys of users that there is demand for the Bash Bish Cabins at the Park. The cabins are rented most of the season. There is need for additional facilities such as showers, since the cabins have no showers, and for new water- and sewer infrastructure. The topography and soil conditions at Copake Falls put strict limitations on alternatives for improvements and upgrades.

TSP has begun plans to improve facilities and infrastructure. Given the historic significance of the Bash Bish Cabins, all effort will be made to preserve the cabins' historic features, while providing safe and comfortable accommodations for Park patrons. Renovations must follow standards set forth by OPRHP's Division of Historic Preservation.

***Alternatives Considered***

### *(i) Status Quo – No improvements to Bash Bish Cabins*

**Considerations**

- Does not align with the vision for the Park
- Does not meet the statewide goal of fixing aging infrastructure
- Will not improve patron satisfaction
- Will allow a significant historic and recreational resource of the Park to further deteriorate

### *(ii) Alternative 2 – Improve Bash Bish Cabins*

**Considerations**

- There is demand for the Bash Bish cabins
- Redesign and remodel interior of cabins for more comfortable sleeping and living accommodations
- Upgrade bathrooms in each Bash Bish cabin to include showers, providing patrons more comfort and privacy instead of having to use a single, separate shower building
- Improvements will require DOH and DEC review
- Aligns with the vision for the Park, and with the agency's statewide goal of fixing aging infrastructure

***Preferred Alternative***

**The preferred alternative is alternative (ii) Improve Bash Bish Cabins.** The planning team selected this alternative because, as with the Iron Workers Cabins, the Park is committed to preserving its historic cabins,

pending available funding, and providing comfortable accommodations. The selected alternative will meet the expectations of patrons staying overnight. The selected action safeguards a significant historic and recreational asset, and it directs the Park toward the vision developed for the Park.

## *E) Greenwich Cottages at Copake Falls*

***Background***

The six Greenwich Cottages have been significantly updated and modernized. They were built sometime in the late 19th – early 20th century. These cottages are available to patrons all year round, and include heat, showers with hot water, TV, full kitchen with dishwasher, and many other comforts. It has been documented through surveys of users that there is demand for the cottages at the Park. There is an opportunity to upgrade the original Rec Hall for large group use. Topography and soil conditions at Copake Falls put strict limitations on alternatives for improvements and upgrades.

***Alternatives Considered***

### *(i) Status Quo – No improvements to Greenwich Cottages*

**Considerations**

- Does not align with the vision for the Park
- Patron satisfaction will not improve

### *(ii) Alternative 2 – Improve Greenwich Cottages*

**Considerations**

- Convert current storage building, originally a Rec Hall, into multipurpose Event Hall suitable for group events such as receptions:
    - Large Event Hall will attract a larger number and bigger diversity of Park users
    - The storage building will require upgrades as part of its repurposing as Event Hall
- Original Caretaker's (aka Camp Director's) Cottage needs stabilization
- Repurpose Caretaker's Cottage for housing, possibly intern housing

***Preferred Alternative***

**The preferred alternative is alternative (ii) Improve Greenwich Cottages.** The planning team selected this alternative because it will meet the diverse expectations of patrons visiting the Park while safeguarding a significant historic and recreational asset. Creating an Event Hall, and providing seasonal staff housing, pending available funding, will provide more flexible use of the facilities and will create opportunities for programmatic expansion at the Park.

## *F) Copake Iron Works at Copake Falls*

***Background***

The historic Copake Iron Works, listed on the New York State and National Registers of Historic Places and designated a Hudson River Valley National Heritage Area Site, is located within the Park's Copake Falls area. Given its status on the New York State and National Historic Registry as well as among National Heritage Area Sites, all effort will be made to preserve the Copake Iron Works' historic features while providing safe educational and recreational opportunities for Park patrons. Undertakings involving these cabins must follow OPRHP policy regarding historic preservation and implementation of Section 14.09 of NYSPRHP Law. There are 25 interpretive panels that illustrate the significance of this historic district, along with a museum.

***Alternatives Considered***

### *(i) Status Quo – No changes to Copake Iron Works*

**Considerations**

- Does not align with the vision for the Park
- Will not improve patron satisfaction

- Does not maximize a tremendous educational opportunity

#### *(ii) Alternative 2 – Improve Copake Iron Works in cooperation with OPRHP's Division of Historic Preservation and the Friends of Taconic State Park*

**Considerations**

- Consistent with the Park's and the agency's goal to foster stewardship of cultural resources
- Consistent with the Park's vision to preserve, interpret, and brand the Copake Iron Works
- Park currently stores maintenance equipment in historic buildings. Building a new maintenance facility and relocating the equipment is high priority
- Explore opportunities to stabilize the Link House, the last remaining unrepurposed iron workers housing, in line with the agency's funding and implementation considerations. The Link House is a contributing building in the State and National Register listed Historic District
- The Friends of Taconic State Park have plans to enhance the interpretation of the Park and the Copake Iron Works. Their plans include a ridable railway loop within the historic district. Parks staff looks forward to the Friends' input into the Park's interpretation
- TSP will continue to foster the established productive partnership between OPRHP's Division of Historic Preservation and the Friends of Taconic State Park

***Preferred Alternative***

**The preferred alternative is (ii) Improve Copake Iron Works in cooperation with OPRHP's Division of Historic Preservation and the Friends of Taconic State Park.** The planning team selected this alternative because it directs the Park to capitalize on a Park asset listed on the New York State and National Registers of Historic Places and among Hudson River Valley National Heritage Area Sites; it solidifies the current collaboration with the Taconic State Park Friends Group and OPRHP's Division of Historic Preservation; and directs the Park toward its vision to preserve, interpret, and brand the Copake Iron Works. All improvements, pending available funding, will preserve the Copake Iron Works' historic features, provide safe educational and recreational opportunities for Park patrons, and foster their appreciation of the Park's cultural resources.

### *G) Dog Run for Campers at Copake Falls*

***Background***

TSP allows pets at some campsites. The Park is committed to remaining a pet-friendly Park, although not at every campsite. It has been documented through visitor surveys that there is desire for an off-leash area for campers with pets because the Park currently does not allow dogs off leash. A nearby municipal dog Park at RoeJan Park accommodates day users with pets.

***Alternatives Considered***

#### *(i) Status Quo – No dog run for campers at Copake Falls*

**Considerations**

- Does not align with the vision for the Park
- Will not improve patron satisfaction

#### *(ii) Alternative 2 – Provide dog run for campers at Copake Falls*

**Considerations**

- Designate off-leash area near the Copake Falls camping area
- Can be built when TSP builds the new Copake Falls camping loop
- Would be available to campers only. Needs of day use visitors with dogs are met at the nearby RoeJan dog Park
- Does not require large financial commitment from the Park

- Requires educating campers about removing their dog's waste from dog run area
- Park could explore opportunity to compost pet waste
- Requires minor ground disturbance

***Preferred Alternative***

**The preferred alternative is (ii) Provide dog run for campers at Copake Falls.** The planning team selected this alternative because it responds to the request of Park patrons to let their dogs off leash while staying at the Park, and directs the Park to uphold its commitment to remaining a pet-friendly Park.

## *H) Day Use Area at Rudd Pond*

***Background***

The day use area at Rudd Pond currently includes a swimming beach, a pond-side lawn area with picnic tables, barbecues and benches, and a playground. TSP is committed to providing recreational opportunities that for the intermediate future include swimming and boating. However, excessive aquatic plant growth is an impediment to providing swimming and fishing recreational uses at Rudd Pond long term (see discussion below 'Swimming at Rudd Pond'). OPRHP staff designed a Site Plan for Rudd Pond's day use area to accommodate a variety of uses and incorporate new facilities.

***Alternatives Considered***

### *(i) Status Quo – No changes to day use area at Rudd Pond*

**Considerations**

- Does not align with the vision for the Park
- Patron satisfaction will not improve

### *(ii) Alternative 2 – Improve day use area at Rudd Pond*

**Considerations**

- Analyze the recreational needs of day users and campers
- Follow proposed Site Plan:
    - Establish new picnic and barbecue areas in renovated Picnic Pavilion/ Comfort Station
    - Remain flexible and adapt to changing uses at Rudd Pond. Swimming and facility improvements are addressed below in this chapter
- Provide playground equipment for 3 – 6-year-old age group
- Explore location for smaller storage building of maintenance equipment kept at Rudd Pond
- Explore rehabilitation and adaptive reuse of CCC-era log-construction boat house, currently in poor condition and in need of repair
- Requires temporary ground disturbance

***Preferred Alternative***

**The preferred alternative is (ii) Improve day use area at Rudd Pond.** The planning team selected this alternative because it provides upgraded recreational opportunities for both day use and overnight visitors. The biggest changes to the day use area are the much-needed facility improvements and possible alternatives that provide continued guarded swimming, discussed elsewhere in this chapter. Implementation will occur pending available funding.

## *I) Camping at Rudd Pond*

***Background***

There are 41 campsites at Rudd Pond. The sites are popular, and tend to be filled throughout the camping season. Most of the sites are on platforms, side-by-side in a straight line which works well for large families or

groups staying at Rudd Pond. There is no documented need from visitor surveys to add campsites, although a little more privacy around some of the sites is desirable. With the recent extension of the South Taconic Trail to Rudd Pond, and the imminent completion of the HVRT section by Rudd Pond, camping at Rudd Pond can become more popular over time and attract new user groups, including long-distance hikers and bicyclists.

***Alternatives Considered***

### *(i) Status Quo – No change to campsites at Rudd Pond*

**Considerations**

- No documented demand for new campsites
- The Park's Copake Falls area provides additional camping opportunities
- Park patrons are happy with Rudd Pond camping facilities

### *(ii) Alternative 2 – Change campsite layout at Rudd Pond*

**Considerations**

- Survey Rudd Pond camp users to get more accurate information on their needs
- Explore camping ideas to meet the needs of users. Over time, Rudd Pond could attract new user groups of long-distance hikers on the South Taconic Trail and bicyclists along HVRT
- No net increase or decrease of sites
- Explore redesigning campground layout and site locations:
    - Stagger camp sites for privacy and to improve camping experience
    - Move some sites off the road and into the woods. There is room in nearby wooded area to accommodate several campsites
    - Leave some sites as is

***Preferred Alternative***

**The preferred alternative is (ii) Change campsite layout at Rudd Pond.** The planning team selected this alternative because it recognizes the patrons' need for campsites with more privacy and directs the Park to address this need, pending available funding.

## *J) Guarded Swimming at Rudd Pond*

***Background***

For discussion on managing Rudd Pond as a natural resource, see this chapter under 'Rudd Pond Management.'

Rudd Pond was originally a small shallow pond that was enlarged by a dam, reducing the pond's surrounding wetlands to its southern and northern ends. TSP established a small beach on Rudd Pond's eastern shore in the 1930s and has provided swimming at the pond ever since. Currently the Park offers guarded swimming to patrons on the weekends, and allows local municipal summer camps to teach swimming on weekdays.

The Pond has been transitioning back to a wetland, making excessive aquatic plant growth an impediment to recreational activities since the 1940s. The Park continues to intensively manage aquatic vegetation to provide recreational swimming and boating. TSP needs to carefully balance employee time and capacity, cost, ongoing maintenance of equipment to combat aquatic plant growth, and consideration of environmental impacts of management options on natural processes. Due to the current condition of Rudd Pond facilities and increases aquatic vegetation growth in the Pond, the Rudd Pond swimming area is not popular among

Park users, and provides little revenue for the Park.

To date, the agency has employed a variety of management techniques to control invasive aquatic plant growth to keep this water body a pond suitable for recreational activities:

- winter drawdown

- hydro raking
- dredging
- weed harvesting
- benthic mats
- Triploid Grass Carp (TGC)

The agency's Environmental Stewardship and Planning Division (ESP) has conducted an extensive assessment of Rudd Pond over the past several years, including a review of previous assessments dating back to 1985, and management actions taken.

Based on experience at Rudd Pond, ESP does not recommend drawdown or dredging. The agency attempted a 2.5-foot winter drawdown of the water level in 1984 in order to weaken invasives by exposing them to winter frost, but it was unsuccessful in reducing their volume. Native flora and fauna were negatively affected by the drawdown, making repeated drawdown not a viable tool. Dredging was performed at the pond at least once, in 2002. This technique is a high cost alternative that needs to be performed regularly and proper disposal of dredged material is an added concern. Repeated dredging to a depth that would limit plant growth and provide recreational swimming at Rudd Pond can have a detrimental effect on the entire pond ecosystem, making it not a viable option.

ESP cautions against other management techniques not yet used at the pond: herbicides or biocontrol. Herbicide application requires multiple treatments at high cost and this technique indiscriminately reduces or eliminates all aquatic vegetation. Large plant die-off can deplete oxygen and increase nutrients, resulting in fish kills and algal blooms, requiring suspension of swimming activities. Herbicide application for these reasons is regarded as a last resort. Biocontrol is a new technique, still in its experimental phase, which employs natural aquatic organisms such as aquatic weevils, aquatic moths, and caddisflies to reduce plant growth and density. Use of a natural biocontrol could have beneficial long-term impacts, and some of these organisms may pre-exist in the waterbody and be able to adapt to changing conditions. However, the reduction in plant density would occur slowly and the initial cost to introduce these organisms would be extremely high. Due to the current cost and ongoing research, this method is not recommended. However, OPRHP should keep informed of any advances in the research.

To continue swimming and boating at Rudd Pond, TSP is actively seeking additional alternatives. The option to allow the Pond to naturally transition to a wetland would have the least environmental impact. It would also have the lowest cost to operations and maintenance (staff time and expenses), and would be a viable long-term choice. However, this option would result in phasing out swimming and boating at the Pond.

***Alternatives Considered***

### *(i) Status Quo – Continue to manage Rudd Pond for guarded swimming*

**Considerations**

- Guarded swimming is open to the public for twelve weekends a year
- Rudd Pond swimming area is not popular among Park users based on current conditions
- Biggest users of Rudd Pond for swimming are local day camps that visit for ten weeks/ year
- Requires intense maintenance and financial commitment to keep the pond a viable swimming area
- Requires upgrade to lifeguard services, providing a designated place for a break to lifeguards in proposed Picnic Pavilion

### *(ii) Alternative 2 – Explore alternatives to maintain swimming in Rudd Pond*

**Considerations**

- Allows the Park to provide recreational swimming while Rudd Pond transitions to wetland
- Current recreational opportunities at Rudd Pond may be altered in the future depending on financial resources and management techniques available to the Park to hold back the pond's natural transition to wetland

### *(iii)Alternative 3 – Allow Rudd Pond to transition to wetland*

**Considerations**

- Swimming and boating would be phased out over time
- Visitor satisfaction will have minor impact because public interest in swimming at Rudd Pond is limited
- Small beach at Rudd Pond provides limited revenue from swimming
- Rudd Pond will continue to naturally transition to wetland
- To allow Rudd Pond to naturally transition to wetland would be viable long-term
- Swimming is available within the Park at the Copake Falls developed area

***Preferred Alternative***

**The preferred alternative is a combination of (i) Continue to manage Rudd Pond for guarded swimming, and (ii) Explore alternatives to maintain swimming in Rudd Pond.** The planning team selected this combination because the Park would like to provide swimming to patrons at Rudd Pond; however, it is uncertain how much financial investment will be available to the Park to control aquatic plant growth and to hold back the natural process of the pond transitioning to a wetland. The selected alternative directs the Park to balance its recreational opportunities with the natural processes of Rudd Pond.

## *K) Park-wide Interpretative Programming*

***Background***

TSP has interpretive panels throughout the Park: at the Copake Iron Works Historic District and museum, at Rudd Pond, as well as along the Harlem Valley Rail Trail (HVRT). This trail is not part of the Park, however runs through Park land in several locations. These interpretive panels offer information on the cultural history, the geology, and plants and animals of Taconic State Park and surrounding area.

Given the wealth of cultural and historic resources at Taconic State Park, there is a tremendous opportunity to educate visitors and interpret these resources for the public. It has been documented through surveys of users and at the Public Meeting that there is strong interest in more interpretive programs, with a wider range of topics. Unfortunately, in recent years the Park has not been able to hire an interpreter due to lack of funding as well as housing options. TSP used to operate a small Nature Center which has remained unused for many years. This building is not historic, and has significantly deteriorated over the years.

***Alternatives Considered***

### *(i) Status Quo – No changes to interpretive programming*

**Considerations**

- Currently the Park does not have designated staff to offer interpretive programs
- The former Nature Center building is small and in disrepair
- Does not align with the vision for the Park
- Will not improve patron satisfaction

### *(ii) Alternative 2 – Increase interpretation*

**Considerations**

- Consistent with the Park's and the agency's goal to foster stewardship of natural and cultural resources
- Would increase patron satisfaction
- Park would need to hire trained staff for interpretation
- If seasonal interpreter staff requires housing, the caretaker's (aka camp director's) cottage at

Greenwich Cabins is an option. TSP has plans to stabilize it and repurpose it for staff housing

- Offer additional interpretive programs on a wide variety of topics, including the history of the Park, plants and animals, bird watching, stargazing, broad environmental issues, etc.
- Use existing pavilion at Copake Falls, and proposed pavilion at Rudd Pond as base for interpretive programs
- Install additional interpretive signage throughout the Park, specifically at trailheads

#### *(iii)Alternative 3 – Revive Nature Center at Copake Falls*

**Considerations**

- Park patrons are primarily interested in outdoor educational programming
- Environmental education can continue and expand without a Nature Center building, relying on covered pavilions at Copake Falls or Rudd Pond
- Renovated Park office at Copake Falls has ample storage for interpretive materials
- The former Nature Center building at Copake Falls has significantly deteriorated
- A new, four season Nature Center with wildlife displays and interactive exhibits:
    - Requires significant financial resources not available to the Park
    - Could make the Park an education center for the region
    - Would allow the Park to offer indoor programming during inclement weather

***Preferred Alternative***

**The preferred alternative is (ii) Increase interpretation.** The planning team selected this alternative because it responds to the request of Park patrons to offer more interpretive programs, with a wider range of topics. Alternative (i) was not selected because the Park is fully committed to fostering the visitors' appreciation of its natural and cultural resources. TSP intends to find a way to hire and house seasonal interpreters. Resurrecting a Nature Center at TSP does not seem imperative for continuing and expanding interpretation at the Park, and building a new center would present an unattainable cost.

### *L) Group Camping*

***Background***

Taconic State Park currently has no group camping sites. It has been documented through surveys of users that there is demand for group campsites, often in the off-season. Groups currently book 5-6 individual campsites to accommodate their needs. Extended families, groups of friends, scout groups, and many clubs and organizations would be served by designated group campsites.

***Alternatives Considered***

#### *(i) Status Quo – No group camping*

**Considerations**

- The Park does not have group campsites
- The Park receives frequent requests for group campsites
- Will not address the frequent demand for group campsites

#### *(ii) Alternative 2 – Designate new group campsite(s)*

**Considerations**

- There is frequent request for group campsites from boy scouts, families, and other large groups
- A group campsite would accommodate from 10 – 60 individuals
- Group campsites would address the needs of groups looking to explore the Park's trails in the off-

season

- Designated group campsites would operate in the off-season, before and after the main camping season. Specific group camping dates to be determined by Park manager. Approximate group camping season would run from April 1st – late May or early June, and Labor Day – Columbus Day
- Establish group campsites at Copake Falls and Rudd Pond areas
- Group campsites would have the following amenities:
    - parking near the group campsite
    - located near trails and / or trailheads
    - bath houses nearby
    - bear-proof boxes for storing food, toiletries, etc.
    - bear-proof dumpster for trash
    - picnic tables and possibly a pavilion-type covered structure with a grill
    - the group site's water source would be the nearby bath house
- The Park will be audited for ADA compliance, and as time progresses ADA compliance at group campsites will be addressed
- There are two possible locations for group campsites at the Park: the grassy Rudd Pond parking area and grassy Bash Bish Falls overflow parking area, near Bash Bish cabins
- Construction of group camping site would require temporary ground disturbance

***Preferred Alternative***

**The preferred alternative is (ii) Designate new group campsite(s).** The planning team selected this alternative because it addresses the diverse documented needs of Park patrons, and provides new recreational opportunities for overnight visitors in line with the vision developed for the Park. The Park has identified possible locations easy to adapt for group camping. This improvement would also generate additional revenue for the Park.

## *M) Backcountry Camping*

***Background***

Taconic State Park currently has no backcountry camping opportunities. The Park's South Taconic Trail was extended in 2015 to almost 21 miles, requiring more than one day to complete. The stretch between Rudd Pond and Copake Falls is 15 miles, long enough for multiday hiking, currently has no camping opportunities. It has been documented through surveys of users that backcountry camping was the most selected #1, and overall the second most selected amenity patrons would like to add to the Park. Long-distance hikers currently camp at non-designated illegal campsites that Park police have to regularly address, or at a nearby campsite in Massachusetts.

***Alternatives Considered***

### *(i) Status Quo – No backcountry camping*

**Considerations**

- Currently there is no backcountry camping in the Park
- Does not address demand for backcountry camping and multiday hiking
- Camping at non-designated sites will continue, damaging natural resources
- Patron satisfaction will improve

### *(ii) Alternative 2 – Provide backcountry camping*

**Considerations**

- There is strong interest for backcountry campsites
- Will increase diversity of camping opportunities offered at the Park
- Would attract additional users to the Park
- Will eliminate illegal camping thus protecting the Park's natural resources
- Select suitable areas for possible sites along South Taconic Trail about half-way along the 16-mile stretch from Rudd Pond to Copake Falls, south of Brace Mountain
- Select and build one backcountry site only to minimize impact on natural resources
- Siting must consider the sensitive natural areas in the Park
- The backcountry campsite will be rugged: it will have a bear box but no privy or any other amenities
- Requires overnight parking regulations and permits, to be displayed on dashboard
- Requires removal of some vegetation and temporary ground disturbance
- Would generate minimal revenue from overnight parking fees

***Preferred Alternative***

**The preferred alternative is (ii) Provide backcountry camping.** The planning team selected this alternative because a backcountry campsite provides novel recreational opportunities for overnight visitors seeking a rustic camping experience, and can foster their appreciation of the Park's resources. The selected improvement will also allow long distance hikers to tackle the newly expanded South Taconic Trail. The Park has begun scouting for possible campsite locations south of Brace Mountain. Final site for backcountry camping will be determined at a later time. Alternative (i) would result in continued illegal camping, a practice the Park seeks to eliminate.

## *N) Fishing*

***Background***

The first-rate trout-fishing opportunities that the Park's streams, brooks, and ponds offer have been drawing visitors to this area even before Taconic State Park was established in 1927. The Roeliff Jansen Kill in particular is a premier fishing resource. Today, fishing remains a major recreational lure to the Park. Fishing, with a state fishing license for ages 16 and older, is permitted on all waters within the Park boundary. All streams in the Park are classified 'C' streams suitable for fishing. All ponds in the Park are classified 'C' or higher and are suitable for fishing. TSP is committed to safeguarding this popular recreational opportunity and to exploring additional sites for family-friendly fishing.

***Alternatives Considered***

### *(i) Status Quo – Continue current fishing operations*

**Considerations**

- Continue fish stocking of the Park's streams and ponds, performed by DEC
- Continue working with Trout Unlimited to improve fish habitat, safeguard water quality, and protect native fish stock in the Park
- Continue fishing access in Rudd Pond from shore and boats. In the winter months, conditions permitting, continue to allow ice fishing on Rudd Pond. (See 'Swimming at Rudd Pond' and 'Boating at Rudd Pond' above for more information)
- Boating in TSP is allowed only at Rudd Pond, not in any other water body. Any boat with a motor needs to be registered as a motor boat.
- All private boaters are asked to inspect their boats prior to launching and upon retrieval from Rudd Pond, carefully remove all vegetation fragments and other debris, and properly dispose of them to safeguard Rudd Pond from the spread of invasives and to protect its water quality. This practice will

also protect other water bodies from the introduction of invasive species present in Rudd Pond. (See Appendix D for more information)

### *(ii) Alternative 2 – Provide additional fishing access to RoeJan Kill*

**Considerations**

- RoeJan Kill is a premiere fishing resource
- Provide fishing access to RoeJan Kill near junction of Orphan Farm Rd and Rt. 22. RoeJan is only stocked lower down in the stream. This parcel is managed by Taconic State Park
- Utilize existing parking pull-off on Rt. 22 as parking for proposed RoeJan Kill access
- Add signage for new fishing access

### *(iii)Alternative 3 – Explore ADA compliant fishing access*

**Considerations**

- Consult with regional biologist to determine viability of Odyssey Farm Pond for fishing
- If fishing is viable, provide family-friendly and ADA compliant fishing access at Odyssey Farm Pond.
- This site is level enough to install a boardwalk and elevated deck for family friendly and ADA compliant access. This parcel is managed by Taconic State Park
- Utilize the existing parking area near Odyssey Farm Pond for new fishing access. This site is suitable for ADA compliant parking
- Add signage for ADA compliant fishing access

***Preferred Alternative***

**The preferred alternative is a combination of all three: (i) Continue current fishing operations, (ii) Provide additional fishing access to RoeJan Kill, (iii) Explore ADA compliant fishing access.** The planning team selected these alternatives because they direct the Park to continue its keystone tradition of providing fishing access at the Park, and to explore new, ADA compliant access. These improvements will provide numerous recreational opportunities for daytime and overnight visitors, pending available funding. The alternatives selected also allow the Park to continue safeguarding the habitat of its native fish, and to foster an appreciation of these resources among Park patrons.

## *O) Paragliding*

***Background***

Brace Mountain is a favorite in the region for paragliding. This activity is only permitted through organizations that hold a paragliding permit issued by the Park. Paragliders access Brace Mountain's summit via the Brace Mountain Trail that originates in Connecticut. Paragliders maintain the designated launch area on Brace Mountain's summit by periodic hand clipping of the shrubby vegetation. If chainsaw work becomes required, the Park can issue permits for such work after consultation with the regional biologist and careful in-field assessment of impact on flora and fauna. The Park reserves the right to discontinue the paragliding permit, issued on a yearly basis, if the protection of other recreational opportunities or natural resources makes it necessary.

***Alternatives Considered***

### *(i) Status Quo – No changes to paragliding arrangements*

**Considerations**

- Paragliders receive a permit to access the summit of Brace Mountain on a yearly basis
- Park evaluates paraglider impact on Brace Mountain's natural resources prior to issuing or renewing Permit
- The organization currently holding the paragliding permit has had a cooperative and respectful working relationship with Taconic State Park

- Paraglider activity has not had a negative impact on other recreational opportunities or the natural resources of Brace Mountain

***No alternatives to the status quo were considered.*** The core team decided not to explore changes to the current paragliding arrangement and leave the Park to evaluate and permit paragliding on a yearly basis. The planning team selected this alternative because the current arrangement with paragliders fits well into the Park's overall vision and allows for a diversity of recreational uses at the Park while closely protecting its natural resources.

## *P) Hunting*

***Background***

OPRHP recognizes hunting as both a recreational activity and a wildlife management tool. It is the desire of the Agency to have hunting in state parks be as consistent with DEC regulations as possible with only those additional restrictions that are necessary to protect public safety, address operational concerns and reduce potential conflicts with other user groups. The Agency also recognizes that each of its facilities is unique and what is appropriate in one park may not be appropriate in another. OPRHP regulates hunting in its facilities by requiring all hunters obtain a Regional Hunting Park Ppermit issued by OPRHP's Park office. This permitting process allows park managers to tailor hunting in their facility to these unique conditions.

In TSP, hunting is allowed only in designated areas, mainly away from hiking trails and no closer than 100' to hiking trails, and away from the developed parts of the Park. In season, both deer hunting (shotgun/ bow/rifle/crossbow/muzzleloader) and turkey hunting (bow only) are permitted with a NYS hunting license and a regional permit. No hunting is allowed on the Harlem Valley Rail Trail. Hunting access from the HVRT is provided in the Undermountain Road area of the Park. Hunters are required to adhere to the appropriate regulations set forth by the NYS DEC and the regional hunting permit restrictions. Turkey hunting is restricted to the hours of sunrise to noon. In the spring, this coincides with the DEC regulated season, but in the fall the DEC regulated season is from sunrise to sunset. DEC's *Black Bear Management Plan for New York State 2014 – 2024* (DEC, 2014b) calls for expanding black bear hunting in NY State Parks, including east of the Hudson River.

***Alternatives Considered***

### *(i) Status Quo – No change to hunting*

**Considerations**

- Continue existing deer and turkey hunting
- TSP has not encountered much request for changes to its current hunting regulations
- TSP has not had interest in youth hunting permits
- TSP focuses on patron education to minimize unwanted human-wildlife encounters. TSP currently does not have nuisance wildlife concerns
- TSP intends to balance the protection of its endangered wildlife species with providing hunting and other recreational opportunities. The mountainsides of the Park provide sensitive habitat for endangered wildlife species
- No additional hunting opportunities will be provided

### *(ii) Alternative 2 – Explore changes to hunting*

**Considerations**

- The hunting permit will continue to prohibit hunting in high use areas such as on the HVRT, Bash Bish Trail, and other trails
- Continue the Park's focus on patron education to minimize unwanted human-wildlife encounters. TSP currently does not have nuisance game wildlife concerns
- Provide a revised hunting map
- Explore additional hunting access at TSP for white-tailed deer hunting

- Consider changes to turkey hunting: allow use of shotguns during both spring and fall turkey seasons in specific areas of the Park, and expand fall turkey hunting to sunrise to sunset in same areas:
    - Both the spring and fall turkey hunting seasons coincide with periods of high public use of the Park, most of which is concentrated along the popular trails. However, through the OPRHP hunting permit process, turkey hunting can remain prohibited in the high use areas
    - Currently turkey hunting is permitted with bow only; turkey hunting with a bow is very difficult; allowing use of a shotgun in specific areas of the Park during spring and fall hunting seasons will offer opportunities to additional hunters
    - Currently spring turkey hunting is permitted from sunrise to noon, coinciding with the DEC regulated season; expanding spring shotgun hunting for turkey from sunrise to noon in specific areas of the Park will provide additional hunting opportunities
    - Currently fall turkey hunting is restricted to the hours of sunrise to noon; expanding the fall turkey season, including shotgun, to sunrise to sunset will coincide with the DEC regulated season and would provide additional opportunities for hunters
    - All turkey hunting would be restricted to areas away from trails
- Consider allowing black bear hunting:
    - Education on coexisting with black bears is an important component of black bear management and will remain a valuable tool for TSP
    - Expand the hunting program to include black bears as appropriate. The Park's hunting program will be reviewed annually, with changes made as necessary
    - As black bear hunting seasons and legal implements coincide with seasons and implements for deer hunting, there should not be any additional risk to public safety, operational concerns, or conflicts with other user groups by allowing black bear hunting in areas open for deer hunting
    - Regularly obtain information from regional biologist and other partners, including DEC, on black bear populations at TSP and region to assess impact of black bear hunting at TSP
    - There are several recreational hunting opportunities nearby, including for black bear, such as at New Forge State Forest, 8 miles west of the Park, and at Harvey Mountain and Beebee State Forests, approx. 15 miles north of TSP
- Consider changes to small game hunting: designate a small area for small game hunting:
    - The Park will consider providing small game hunting opportunities in a manner that allows for monitoring the potential impacts to New England cottontail, a Species of Greatest Conservation Need, in coordination with DEC
    - Stocking pheasants is not in line with OPRHP's wildlife policy (http://nysParks.com/inside-our-agency/documents/PolicyOnFishAndWildlifeManagement.pdf)

***Preferred Alternative***

**The preferred alternative is (ii) Explore changes to hunting.** The planning team selected this alternative because it gives TSP the flexibility to explore changes to its hunting regulations to provide additional recreational hunting opportunities while protecting the safety and needs of Park patrons. TSP's hunting regulations will be reviewed annually, with changes made as needed and as more information becomes available about its game species.

# III. Strategies for Operations, Infrastructure and Facilities

## *A) Picnic Area and Pavilions at Copake Falls*

***Background***

TSP's day-use area is very popular with all Park patrons. The Park has recently installed a sustainable parking area and a picnic pavilion. The Park used to have other amenities, such as ball fields. There is documented need through visitor surveys for more access to pavilions and picnic tables, along with formal

recreational opportunities. There is patron need to accommodate younger children at the playground.

***Alternatives Considered***

### *(i) Status Quo – No changes to picnic areas or pavilions*

**Considerations**

- Patron satisfaction will not improve
- Does not address documented need from Park patrons

### *(ii) Alternative 2 – Improve picnic areas and pavilions*

**Considerations**

- Generate a Site Plan for entire great lawn area
- There is need for a second pavilion or a bigger one, with total capacity of 60-80 people
- Add second pavilion either by nature center location, by playground, or the current ranger station
- There is water and electric access by the great lawn, at the south-east corner of the great field
- Assess visitor needs for the type of team sports they would like to play
- Plant shade trees along perimeter of great lawn
- Add benches to picnic area

### *(iii)Alternative 3 – Make picnic areas ADA compliant*

**Considerations**

- Provide an ADA route to picnic area

***Preferred Alternative***

**The preferred alternative is a combination of (ii) Improve picnic areas and pavilions and (iii) Make picnic areas ADA compliant.** The planning team selected these alternatives because they direct TSP to generate a site plan and redesign the overall layout of its day-use area to accommodate a wider diversity of uses: team sports, and more gathering space with more amenities, including ADA compliance. The selected improvements respond to Park patron needs and help tailor its day-use area to current and projected needs, pending available funding.

## *B) Comfort Stations at Copake Falls*

***Background***

At Copake Falls there is one Campground Shower House and three Comfort Stations, one in each of the three existing camping loops. They are all aging and in need of repair. It has been documented through survey of users that restroom/ shower facilities received the lowest average level of satisfaction. There is pronounced need for upgrades and improvements to bathroom and shower facilities, and for increase to their numbers. Septic field improvements will need to accompany changes to comfort stations. The two comfort stations in campground Loops A and B were built by the CCC, so all renovations must follow standards set forth by OPRHP's Division of Historic Preservation.

***Alternatives Considered***

### *(i) Status Quo – No changes at Copake Falls*

**Considerations**

- Does not meet statewide goal of fixing aging infrastructure
- Will not improve patron satisfaction

### *(ii) Alternative 2 – Improve comfort stations and shower house, and build new shower house and septic at Copake Falls*

**Considerations**

- Improve Comfort Stations in campground Loops A and B in coordination and with approval from Division of Historic Preservation
- Improvements to the Comfort Stations will be carried out one station at a time to accommodate visitor need for bathrooms during construction, and due to limited Park resources
- The Park will construct a new campground shower house and a corresponding septic facility, and will upgrade its existing shower house as the last element in the Comfort Station improvements. Location for new shower house and septic has already been chosen
- After improvements to all three comfort stations and the shower house, and after contruction of new shower house, the number of showers will double
- Make all Comfort Stations ADA compliant at time of renovation

***Preferred Alternative***

**The preferred alternative is alternative (ii) Improve comfort stations and shower house, and build new shower house and septic at Copake Falls.** The planning team selected this alternative because leaving the Comfort Stations as is will not only perpetuate inadequate bathroom and shower facilities, but will also allow them to further deteriorate. The selected improvements direct TSP to address the needs of its overnight patrons while letting the Park to do so in phases, pending available funding. The selected alternative will provide the Park with the necessary sanitary facilities for continued operation of its campgrounds.

## *C) Ore Pit Pond Bath House at Copake Falls*

***Background***

Ore Pit Pond is a historically popular swimming and recreation destination at the Park. The bath house by Ore Pit Pond is a seasonal structure that needs to provide showers, bathrooms, and a first aid/ lifeguard station for bathers. Currently the bath house has no electric or telephone connection. The building requires significant renovation, and addition of electric and telephone service.

***Alternatives Considered***

### *(i) Status Quo – No changes to Ore Pit Pond bath house*

**Considerations**

- Does not meet statewide goal of fixing aging infrastructure
- Patron safety and satisfaction will not improve

### *(ii) Alternative 2 – Renovate Ore Pit Pond bath house*

**Considerations**

- Aligns with the vision for the Park
- Install both electricity and telephone service
- Enhance rest rooms and changing area
- Improve lifeguard area
- Add shower towers outside
- Add indoor showers, only cold water
- Make it ADA compliant. ADA accessible path exists

***Preferred Alternative***

The p**referred alternative is alternative (ii) Renovate Ore Pit Pond bath house.** The planning team

selected this alternative because the improvements are imperative for the Park to sustain safe and appropriate swimming operations at Ore Pit Pond, pending available funding.

## *D) Bash Bish Shower House at Copake Falls*

***Background***

The Bash Bish shower house, serving the Bash Bish cabins, was constructed by the Civilian Conservation Corps in the 1930s. The shower house needs building code and ADA compliance upgrades. The shower house also presents an opportunity for a remodel into an ADA compliant cabin. The existing Bash Bish cabins are only accessible by a long series of stairs and are not ADA compliant. The topography and soil conditions at Copake Falls put strict limitations on alternatives for improvements and upgrades.

TSP has begun plans to improve facilities and infrastructure. Given the historic significance of the Bash Bish shower house, all effort will be made to preserve its historic features while providing safe and comfortable accommodations for Park patrons. Renovations and remodel must follow standards set forth by OPRHP's Division of Historic Preservation.

***Alternatives Considered***

### *(i) Status Quo – No improvements to Bash Bish shower house*

- Patron satisfaction will not improve
- Does not align with the vision of the Park
- Does not meet statewide goal of fixing aging infrastructure

### *(ii) Alternative 2 – Improve Bash Bish shower house*

- Upgrade the Bash Bish shower house, serving all five cabins, to building code and ADA compliance
- The Bash Bish shower house upgrades are in the five-year plan

### *(iii)Alternative 3 – Remodel Bash Bish shower house into cabin*

- Bash Bish shower house, unlike Bash Bish cabins, is on relatively level ground that lends itself to ADA upgrades
- Once each Bash Bish cabin has upgraded bathrooms with showers, convert current Bash Bish shower house into ADA compliant cabin with full bathroom
- Remodeling the shower house into an ADA compliant cabin with full bathroom provides a suitable solution to accommodating families with small children and patrons with impaired mobility in the Bash Bish cabin setting

***Preferred Alternative***

**The preferred alternative is a combination of alternatives (ii) Improve Bash Bish shower house and (iii) Remodel Bash Bish shower house into cabin.** The selected alternative will meet the expectations of patrons staying overnight, will provide safe, comfortable and compliant accommodations, pending available funding, and will safeguard a significant historic and recreational asset in the Park, all consistent with the vision developed for the Park.

## *E) Water and Electric at Camping Loops at Copake Falls*

***Background***

TSP's Copake Falls campgrounds currently have no electric hookups. Not every campsite has access to water: loops A and B provide spigots at every campsite, however in loops C and D only sites 73-99 have spigots. In addition, TSP is planning to build a new camping loop E, keeping the total number of campsites the same (see discussion above). There is documented demand through surveys of campers for electric and more campsite access to water.

***Alternatives Considered***

### *(i) Status Quo – No addition of water or electric at camping loops*

**<u>Considerations</u>**

- Patron satisfaction will not improve

- Does not align with the vision of the Park
- Does not meet statewide goal of fixing aging infrastructure

#### *(ii) Alternative 2 – Electric and water at selected campsites and at new campsites*

**Considerations**

- Add electric and water to all sites in new Loop E
- Add more water spigots to loops C and D. Two or three campsites can share the same spigot.
- Add electric to sites in loops C and D since the Park will be digging trenches for water in those loops
- Depending on location of large trees and tree roots, trenching to every campsite in loops C and D can be difficult and can cause significant damage to vegetation
- Loops A and B already provide spigots at every campsite. Do not add electric to these sites to avoid the need for trenching
- Explore renewable energy sources, such as solar, to cover campground energy needs
- Would meet the current need for full hook-up camping opportunities within the service area of the Park
- Increases range of campsite types offered at the Park
- Requires trenching and temporary ground disturbance
- Will connect to existing municipal water facilities
- Would attract additional users

#### *(iii)Alternative 3 – Electric and water at all campsites in every loop*

**Considerations**

- Provide spigots and electric hook-ups at every existing and new campsite
- Would meet the current need for full hook-up camping opportunities within the service area of the Park
- Increases range of campsite types offered at the Park
- Requires trenching and temporary ground disturbance. Depending on location of large trees and tree roots, trenching to every campsite can be difficult and can cause significant damage to vegetation
- Requires more funding than providing water and electric at selected campsites
- Will connect to existing municipal water facilities
- Would attract additional users
- Explore renewable energy sources, such as solar, to cover campground energy needs

***Preferred Alternative***

**The preferred alternative is alternative (ii) Electric and water at selected campsites and at new campsites.** The planning team selected this alternative because it accommodates camper needs for water and electric access, while directing the Park to be cognizant of environmental constraints during installation and to explore sustainable alternatives to increased energy use. The addition of a new camping loop at Copake Falls will be an opportune time to build this infrastructure, pending available funding. Alternative (i) is not in line with the vision for the Park, while alternative (iii) is potentially detrimental to existing vegetation and too costly.

### *F) Maintenance Facility Location at Copake Falls*

***Background***

TSP currently stores maintenance equipment in a historic building of the Copake Iron Works. In addition to its historic status, the current maintenance facility's foundation is undermined and it is structurally unsatisfactory. The slope under the building is subsiding. These factors make repairing the building difficult. Building a new maintenance facility is a high priority for the Park, although cost of new construction is an obstacle. The maintenance facility needs to remain in the Copake Falls developed area, in the vicinity of Park headquarters and the fuel station. Moving it to another location would mean more travel time for staff and more machinery on public roads. The fuel station was recently restored, and will need to remain in its present location for the near future. The Park would also like to locate the maintenance facility out of sight from visitors. Regional and Park staff have evaluated several options, and proposed an ideal new location.

***Alternatives Considered***

### *(i) Status Quo – No changes to location*

**Considerations**

- Maintenance building will continue to deteriorate and become inappropriate for use
- Does not meet statewide goal of fixing aging infrastructure
- Cultural resources of the Park will not be protected. The exterior of the building is still historically relevant, although the interior has been modified
- Renovating the maintenance facility is difficult given its historic status
- The current maintenance facility location is structurally inappropriate due to the hill subsiding under the building. A significant retention wall would be necessary prior to reconstruction. Such a wall is not appropriate in the Copake Iron Works Historic District

### *(ii) Alternative 2 – Move maintenance facility to new location*

**Considerations**

- Aligns with the vision for the Park
- Meets statewide goal of fixing aging infrastructure
- Cost of new construction so far has been prohibitive for TSP
- Explore funding opportunities with OPRHP and Park partners
- Allows the Park to move maintenance facility away from Copake Iron Works Museum
- TSP has identified a suitable location for the new maintenance facility within the Park's developed Copake Falls area, along Valley View Road on open agricultural fields. This is directly across the street from the existing maintenance area
- New location will allow staff quick access to fuel pump station across the street
- New location is not visible by Park visitors as well as neighboring residents
- Access to new maintenance building will require a bridge or a culvert over a small stream
- Select stream crossing design in consultation with regional biologist. Consider such ecologically sensitive options as an open-bottom culvert

***Preferred Alternative***

**The preferred alternative is (ii) Move maintenance facility to new location.** The planning team selected this alternative because moving the maintenance facility is unavoidable and necessary. The selected steps identify a practical new location. Unfortunately, funding source(s) for the new construction have not been identified.

## *G) Dump Station at Copake Falls*

***Background***

Current dump station at Copake Falls is on the wrong side of the exit lane, it forces RVs to drive around a

second time as they leave. Current location is also a nuisance to Iron Works Cabins patrons.

***Alternatives Considered***

### *(i) Status Quo – No changes to location*

**Considerations**

- Trailers will have to continue to drive all around twice as they leave
- Patron satisfaction will not improve

### *(ii) Alternative 2 – Relocate dump station*

**Considerations**

- Change design and orientation of dump station to the correct side of campers as they exit the Park
- At a later time, dump station can be moved to new maintenance area (see discussion on 'Maintenance Facility Location at Copake Falls' above)

***Preferred Alternative***

**The preferred alternative is (ii) Relocate dump station.** The planning team selected this alternative because it is an easy solution to the current impractical dump station location and improves the traffic pattern for patrons leaving the Park.

## *H) Internet/Wi-Fi Connectivity at Copake Falls*

***Background***

Currently, Wi-Fi is only available to patrons at the Copake Ironworks. The internet/ network connectivity of the Park office is also quite limited compared to other state parks and patron expectations. Internet/ Wi-Fi connection at the Park was the #1 amenity requested by visitors surveyed by OPRHP online and at the Park between March – August 2016. Internet service on the Taconic Ridge is spotty, and TSP will consider improving cell service up on those trails as well.

***Alternatives Considered***

### *(i) Status Quo – No Wi-Fi*

**Considerations**

- Would not meet master plan goal of providing and expanding amenities to increase patron satisfaction
- Would not meet the needs of day users, regular camping and seasonal camping patrons, or visitors for special events
- Poor internet/network connectivity of the Park office will continue

### *(ii) Alternative 2 – Provide Wi-Fi hotspot(s) at Copake Falls*

**Considerations**

- There is strong documented need for internet connection by patrons
- Meets the master plan goal of providing and expanding amenities to increase patron satisfaction
- Meets the needs of day users, campers, and patrons holding special events at the Park
- Poor internet/network connectivity of the Park office will be improved
- TSP has identified several hot spots for Wi-Fi access:
    - Park office; Copake Iron Works Museum; Ironworkers Cabins; Greenwich cottages; and campground
- Internet access is important for visitor safety
- Internet access allows patrons to research how to explore the Park and its surroundings

### *(iii)Alternative 3 – Provide full Wi-Fi coverage in Copake Falls*

**Considerations**

- There is documented demand for internet connection by patrons
- Would require significant new network infrastructure and corresponding costs

***Preferred Alternative***

**The preferred alternative is (ii) Provide Wi-Fi hotspot(s) at Copake Falls**. The planning team selected this alternative because it directs the Park to provide the #1 amenity requested by visitors surveyed, and directs the Park to do so without installing extensive infrastructure or bearing high costs.

## *l) Picnic Pavilion at Rudd Pond*

***Background***

Rudd Pond's current bath house and comfort station in day use area are considerably aged and in need of major renovation. It has been documented through surveys of users that there is urgent demand for adequate bathroom and shower facilities. OPRHP staff designed a Site Plan for Rudd Pond day use area to accommodate a variety of uses. TSP is committed to providing passive recreational opportunities at its Rudd Pond location such as hiking, camping, picnicking, and for the near future guarded swimming and boating. The Site Plan allows the Park to remain flexible and adapt to changing uses.

***Alternatives Considered***

### *(i) Status Quo – No changes to current bath house*

**Considerations**

- Does not meet statewide goal of fixing aging infrastructure
- Patron satisfaction will not improve
- Allows shower and bathroom facilities to further deteriorate

### *(ii) Alternative 2 – Remodel bath house into picnic pavilion and comfort station*

**Considerations**

- Follow new Site Plan for Rudd Pond
- Remodel existing bath house into picnic pavilion
- Repurpose wings of existing bath house as open but covered picnic areas with picnic tables
- Create additional picnic area/ patio space in front of Picnic pavilion, facing Rudd Pond
- Picnic pavilion can serve day use patrons and campers alike
- Picnic wings of pavilion allow for scenic views of Rudd Pond, be it open water or wetland
- Picnic pavilion will remain a center of Rudd Pond's day use area
- Enclose central area of picnic pavilion as a comfort station (see discussion bellow)
- Make picnic pavilion ADA compliant

***Preferred Alternative***

**The preferred alternative is (ii) Remodel bath house into picnic pavilion with comfort station.** The planning team rejected the status quo because it will allow Rudd Pond facilities, already in poor condition, to further deteriorate. The selected alternative offers Rudd Pond a multi-purpose, ADA compliant facility that accommodates many recreational needs, pending available funding.

## *J) Comfort Stations at Rudd Pond*

***Background***

Rudd Pond's comfort station in day use area is in poor condition and in need of major renovation, although the number of showers is sufficient. It has been documented through surveys of users that there is urgent demand for adequate bathroom and shower facilities. OPRHP staff designed a Site Plan for Rudd Pond to repurpose its facilities and accommodate a variety of uses. The current comfort station will be repurposed as staff work station (see discussion below). The existing bath house is to be converted into a picnic pavilion that includes a brand-new comfort station.

Rudd Pond's campground shower house received minor upgrades and is in functioning order. The campground's auxiliary bathroom, however, is outdated, in poor condition, and not ADA compliant.

***Alternatives Considered***

### *(i) Status Quo – No improvements to Comfort Stations*

**Considerations**

- Does not meet statewide goal of fixing aging infrastructure
- Patron satisfaction will not improve
- Allows facilities to further deteriorate

### *(ii) Alternative 2 – Remodel bath house to include comfort station*

**Considerations**

- Enclose central area of proposed picnic pavilion as a comfort station (See discussion 'Picnic Pavilion at Rudd Pond' above)
- New comfort station will provide bathrooms, changing area, potable water, and a small kitchen with sink and refrigerator
- Build small addition to comfort station to accommodate proposed facilities
- Comfort station will be seasonal, from mid-April – October
- Make comfort station ADA compliant

### *(iii)Alternative 3 – Upgrade campground shower house and bathroom*

**Considerations**

- Meets statewide goal of fixing aging infrastructure
- Upgrade/ replace campground shower house and auxiliary bathroom to comply with current building codes
- Upgrade campground shower house and auxiliary bathroom to ADA compliance
- Patron satisfaction will improve

***Preferred Alternative***

**The preferred alternative is a combination of (ii) Remodel bath house to include comfort station, and (iii) Upgrade campground shower house and bathroom.** The planning team selected these alternatives because they provide proper comfort stations to both day users and campers. A new, ADA compliant comfort station in a repurposed bath-house is the most practical solution to Rudd Pond's facility shortcomings in its day use area, and upgrading the campground shower house and auxiliary bathroom is an equally necessary improvement. Improvements will occur pending available funding.

## *K) Staff Work Station at Rudd Pond*

***Background***

TSP staff at Rudd Pond currently use a trailer as office space. OPRHP staff designed a Site Plan for Rudd Pond to repurpose its facilities, including repurposing the deteriorating comfort station into a staff work station. TSP would like to provide a four-season permanent building for its staff at Rudd Pond. The current staff trailer is unsightly, not suitably located, and TSP would like to remove it.

***Alternatives Considered***

### *(i) Status Quo – Keep staff in trailer*

**Considerations**

- Does not meet statewide goal of fixing aging infrastructure
- Does not align with vision for the Park

### *(ii) Alternative 2 – Remodel comfort station into staff work station*

**Considerations**

- Convert current comfort station into staff work station
- Remove current staff trailer as new staff work station provides adequate workspace
- Make staff work station ADA compliant
- Staff will be closer to center of day use area and near visitors
- Staff work station will have electricity, heat, and a small bathroom for staff only
- Staff work station will be a four-season facility

***Preferred Alternative***

**The preferred alternative is (ii) Remodel comfort station into staff work station**. The planning team selected this alternative because it affords Rudd Pond staff a four-season permanent building without having to invest in new construction, puts TSP staff in a more suitable location for visitors, repurposes a facility to be ADA compliant, and allows TSP to remove the unsightly trailer, pending available funding. All these improvements are in line with the vision of the Park.

## *L) Water Distribution System at Rudd Pond*

***Background***

Rudd Pond's water line and distribution lines are very old. There are broken pipes, and the connection points in piping are failing. The whole water system is deteriorating and needs replacement. The Rudd Pond pump house and water storage unit are new and function well.

***Alternatives Considered***

### *(i) Status Quo – No change to water distribution system*

**Considerations**

- The water distribution system is old and does not serve adequately.
- Does not meet statewide goal of fixing aging infrastructure
- Patron satisfaction will not improve
- Allows infrastructure to further deteriorate

### *(ii) Alternative 2 – Upgrade water distribution system*

**Considerations**

- Upgrade water distribution lines with new piping and new connection points

- Requires temporary ground disturbance
- Aligns with the vision for the Park
- Meets statewide goal of fixing aging infrastructure
- Explore funding opportunities with OPRHP and Park partners

***Preferred Alternative***

**The preferred alternative is (ii) Upgrade water distribution system**. The planning team rejected the status quo because it allows an old, failing infrastructure to further deteriorate. The selected improvements will provide the necessary water distribution system Rudd Pond must have, pending available funding.

## *M) Parking and circulation at Rudd Pond*

***Background***

Rudd Pond has a large grassy parking area that has proved to be sufficient for its visitors. Circulation is currently circular: the entrance road cuts between the current bath house and comfort station (to be repurposed as picnic pavilion/comfort station and staff work station, see discussion above), then forks into a road that loops back to a parking area and exit road, and into a road that leads to Rudd Pond camping area. This traffic flow is inappropriate as it brings cars between day use area facilities, and unnecessarily doubles car traffic in and out of the Park.

OPRHP staff designed a Site Plan for Rudd Pond that limits driving to one road, and eliminates car traffic between its two day-use buildings for the safety of visitors.

***Alternatives Considered***

### *(i) Status Quo – No change to parking and circulation at Rudd Pond*

**Considerations**

- Patron safety will not improve
- Patron satisfaction will not improve
- Not in line with Park's vision to provide ADA compliant parking

### *(ii) Alternative 2 – Update parking and circulation at Rudd Pond*

**Considerations**

- Parking area:
    - Keep in its current location
    - Keep it grass, except for two ADA compliant parking spots
    - Build two ADA compliant parking spots
- Car traffic:
    - Limit entry and exit through parking area only
    - Provide vehicular access to camping area through parking area only
    - Eliminate vehicular access between day use facilities
- Repurpose paved road between day use area facilities into pedestrian- and bike only access
- Increases visitor safety

***Preferred Alternative***

**The preferred alternative is (ii) Update parking and circulation at Rudd Pond**. The planning team selected this alternative because it provides safe and efficient access in and out of the Park, and increases patron safety by eliminating car traffic between its day use facilities.

## *N) Internet/Wi-Fi Connectivity at Rudd Pond*

***Background***

TSP does not have internet connection available for patron use. Internet/ Wi-Fi connection at the Park was the #1 amenity requested by visitors surveyed by OPRHP online and at the Park between March – August 2016. Internet service on the Taconic Ridge is spotty, and TSP will consider improving cell service up on those trails as well.

***Alternatives Considered***

### *(i) Status Quo – No Wi-Fi at Rudd Pond*

**Considerations**

- Would not meet the master plan goal of providing and expanding amenities
- Patron satisfaction will not improve

### *(ii) Alternative 2 – Provide Wi-Fi hotspot at Rudd Pond*

**Considerations**

- There is strong documented request for internet connection by campers
- Increases patron satisfaction
- Meets the needs of day users, camping patrons, and visitors for special events
- Meets the master plan goal of providing and expanding amenities
- TSP has identified the hot spots for Wi-Fi access: the campground shower house, primarily catering to campers
- Internet access is good for visitor safety
- Internet access allows patrons to research how to explore the Park and its surroundings

***Preferred Alternative***

**The preferred alternative is (ii) Provide Wi-Fi hotspot at Rudd Pond**. The planning team selected this alternative because it directs the Park to provide the #1 amenity requested by visitors surveyed. Rudd Pond's developed area is small enough for a single hotspot to be sufficient.

## *O) Sustainability and Green Infrastructure*

***Background***

TSP is committed to sustainable and ecologically sensitive operations, including energy sourcing and use, water conservation, recycling, reduced mowing, and native plant selection for revegetation. For example, TSP incorporated green infrastructure features into its recently restored Park headquarters, and renovated its visitor parking with pervious surface materials. The Park has a successful and robust single-source recycling system for its day users and overnight patrons. TSP does not use pesticides or chemical treatments, unless it becomes absolutely necessary. OPRHP's Taconic Region will install solar panels at Lake Taghkanic State Park in 2017, only 15 miles from TSP. These panels provide substantial energy and savings to the Taconic Region, including TSP. The region identified another solar opportunity at Orphan Farm, managed by TSP, which will generate revenue for OPRHP's Taconic region. The Park recognizes that additional sustainability improvements will be appropriate as technology, resources, and opportunity arise. Going forward, TSP is committed to exploring all sustainability features available to its facility and infrastructure upgrades (day use, camping, cabins, etc.), and tap into the expertise of OPRHP's trained regional sustainability construction staff.

***Alternatives Considered***

### *(i) Status Quo – No changes to sustainability efforts*

**Considerations**

- Does not meet the statewide goal of greening state Parks

- Does not align with the vision for the Park

### *(ii) Alternative 2 – Explore and incorporate new green infrastructure*

**Considerations**

- Aligns with the Park's vision for sustainability within the Park
- Meets the statewide goal of greening state parks
- Energy:
    - Conduct TSP energy audit. OPRHP's Taconic Region has trained staff to perform energy audit
    - Improve energy efficiency of buildings
    - Improve energy use patterns
- Water:
    - Tap into OPRHP sustainability staff to assess water bills
    - Identify and repair leaky infrastructure
- Recycling:
    - Reach out to volunteer organizations, such as girl- and boy scouts, to collaborate on recycling efforts as it financially benefits both the Park and the organizations
    - Explore using the 'Volunteer Match' app to identify volunteer partners for recycling and other sustainability efforts
- May require some new infrastructure
- Tap into OPRHP regional staff trained in green infrastructure installation
- Energy costs saved by the Park with solar or other sustainability infrastructure stay at the Park

***Preferred Alternative***

**The preferred alternative is (ii) Explore and incorporate new green infrastructure.** The planning team selected this alternative because it directs the Park to strive for energy independence and explore all sustainability features it can reasonably incorporate into its operations. In-house sustainability staff, OPRHP support, emergent technologies, and potential funding opportunities make green infrastructure increasingly more accessible for TSP.

## *P) Mutual Aid Agreement with Mass DCR*

***Background***

Taconic State Park sits directly on the border of Bash Bish Falls State Park, MA and Mt. Washington State Forest, MA. TSP's Park office is located 2 miles from Bash Bish Falls, MA, and TSP provides the majority of parking for this heavily visited sightseeing landmark. TSP's Bash Bish Falls Trail is the most visited trail in the Park, with patrons hiking into MA to view the Falls. In addition, the approx. 25-mile-long South Taconic Trail traverses the length of TSP and switches between NY and MA several times along its length.

In most cases, TSP staff are the first responders to emergencies at Bash Bish Falls, MA and on the South Taconic Trail in Massachusetts. TSP reached out to the Massachusetts Department of Conservation and Recreation (DCR) who own and manage Bash Bish Falls State Park, MA and Mt. Washington State Forest, MA in order to establish legal parameters for mutual emergency response and rescue efforts. DCR has less resources in the area than TSP.

Both TSP and DCR are ready to sign an appropriate legal agreement. The purpose of the legal agreement is to allow NYS OPRHP and Mass DCR staff to work together when responding to emergencies in bordering Parks - Mt. Washington State Forest (MASS DCR), Bash Bish Falls State Park (MASS DCR), and Taconic State Park (NYS OPRHP). Currently, NYS Park vehicles and employees are not supposed to leave NYS without written permission. If and when NYS employees are injured helping during a response in MA, they may not be granted Workmen's Comp benefits. OPRHP currently violates this guideline allows TSP staff to

provide aid in MA. Many other NYS agencies have interstate emergency aid plans in place including police, fire, EMS, etc. through the National Incident Management System.

Common emergency responses by Taconic State Park staff in MA include: injury or medical emergency at Bash Bish Falls State Park (MA); lost hiker(s) on South Taconic Trail (MA and NY); and automobile accidents along Rt. 344. Other potential emergencies that will require coordinated emergency response include wildland fire and aircraft crash (paraglider).

***Alternatives Considered***

### *(i) Status Quo – No mutual aid agreement with Mass DCR*

**Considerations**

- Leaves OPRHP and its employees without legal protection when leaving the state to provide mutual aid
- OPRHP will continue violating guidelines not to allow its staff to leave NYS

### *(ii) Alternative 2 – Formalize mutual aid agreement with Mass DCR*

**Considerations**

- Cooperatively respond to emergencies across NY and MA state lines, particularly in the Bash Bish Falls area which is frequented primarily by visitors crossing in to Massachusetts from New York, as well as along the South Taconic Trail.
- New York State Parks and Taconic staff have been the de facto first responders to incidents in the Bash Bish Falls area and along the South Taconic Trail most of the time
- Will protect OPRHP and its employees when leaving the state to provide mutual aid
- Both TSP and DCR are ready to sign an appropriate legal agreement

***Preferred Alternative***

**The preferred alternative is (ii) Formalize mutual aid agreement with Mass DCR.** The planning team selected this alternative because it shall advance future efforts to formalize the partnership with MA DCR which de facto exist between NY and MA Park staff. Currently TSP staff perform these duties without agency approval.

## *Q) Parking at Bash Bish Trailhead*

***Background***

The Bash Bish Trail is the most popular trail at TSP, leading to Bash Bish Falls just over the MA border. Parking for this trailhead is along the curving Rt 344. Its capacity is for 40 cars. During hiking season, especially on weekends, the parking lot gets so congested that TSP has to provide two overflow parking areas – a small one on the lawn along the connector road to Bash Bish Cabins, and a larger parking area on the lawn by Bash Bish Cabins. Despite overflow parking, cars are often Parked outside designated parking areas, often along Rt 344. Pull-in and especially pull-out from the parking area is inappropriate due to poor visibility along Rt 344 and the angle of pull-out provided. TSP has a spacious day-use parking area nearby with a short connector trail to Bash Bish trailhead. This parking area requires a day use fee from visitors. There is a hiking trail to Bash Bish Falls from Massachusetts' Bash Bish Falls State Park, with a trailhead parking area that faces similar challenges. MA plans to install pay stations at their Bash Bish parking lot to regulate parking volume and to enforce parking in designated areas only.

***Alternatives Considered***

### *(i) Status Quo – No changes to parking at Bash Bish trailhead*

**Considerations**

- Patron satisfaction will not improve
- Patron safety will not improve either while driving along Rt 344 or parking at Bash Bish trailhead
- Parking will remain overcrowded and spill over into undesignated areas, compounding difficult driving

conditions

### *(ii) Alternative 2 – Improve parking at Bash Bish trailhead*

**Considerations**

- Work with NYS DOT to design a safer parking lot at Bash Bish trailhead:
    - OPRHP will provide proposed changes, DOT will develop and finalize plan
    - Deliniate parking spots with painted lines for efficiency
    - Install 'No Parking' signs along Rt. 344
- Explore installing pay stations at Bash Bish trailhead:
    - Install 'honor system' pay stations with appropriate signage encouraging visitors to support the Park and its infrastructure
    - Install mandatory pay stations
    - Coordinate the pay stations with MA
    - Will limit volume of parking TSP has to accommodate
- Encourage visitors to Park in spacious nearby day-use parking area and walk to Bash Bish trailhead along an existing short connector trail
- Be consistent with Park visitor fee in nearby day-use parking area
- Work with local law enforcement to educate and retrain visitors about parking regulations

***Preferred Alternative***

**The preferred alternative is (ii) Improve parking at Bash Bish trailhead.** The planning team selected this alternative because it allows the Park to address an increasingly inappropriate trailhead access, improves visitor safety, regulates parking, and directs the Park to coordinate efforts with its MA counterpart as well as law enforcement on both sides of the border. Implementation will occur pending available funding.

## *R) Parking at Harlem Valley Rail Trail by Park Headquarters*

***Background***

TSP regards the Harlem Valley Rail Trail (HVRT) as a significant recreational asset and supports the rail trail's completion. While HVRT is outside Park boundaries, it transects the Park in several locations, and TSP welcomes its users in the Park. TSP looks forward to a multi-agency HVRT partnership for shared operations and maintenance.

When this HVRT parking lot was built, the rail trail terminated at TSP's headquarters, so providing parking for HVRT in this location was necessary. This is no longer the case. The HVRT has been expanded one mile north, and a spacious parking area is provided at the new terminal on Orphan Farms Road. This parking area is very popular with HVRT users as it allows them to Park away from the congested headquarters and extends their ride with an additional scenic mile.

Park visitors wishing to swim at Ore Pit Pond have routinely used the free HVRT parking lot by Park headquarters to avoid paying the Park entry fee, creating an enforcement challenge for the Park, and limiting – and often eliminating – available parking for HVRT users at this location.

Adding to the congestion at the intersection of HVRT, Rt 344 and Park headquarters are Bash Bish Bicycle, providing bike rentals for HVRT users, and the Depot Deli, the only concession near the Park's Copake Falls area. While both the bike shop and deli have their own parking lots, many TSP visitors inadvertently use the HVRT parking area. To address congestion and misuse of the HVRT parking area, TSP is looking into

changes to the current parking arrangement at HVRT.

***Alternatives Considered***

### *(i) Status Quo – No changes to parking at HVRT by Park headquarters*

**Considerations**

- Will continue congested and difficult driving / parking configuration
- Will perpetuate current use of HVRT parking area by TSP patrons to the detriment of HVRT users
- Will continue to allow some patrons access to TSP without paying Park entry fee

#### *(ii) Alternative 2 – Modify parking at HVRT by Park headquarters*

**Considerations**

- The HVRT parking area already exists and presents an opportunity for modified use
- Designate parking area for TSP visitors and alter its name to reflect new use
- Install short term 'honor system' pay stations at HVRT lot with appropriate signage encouraging visitors to support the Park and its infrastructure
- Phase in long term use. Designate HVRT parking area for specific users only:
    - Parking for Empire Passport holders only
    - Parking for Empire Passport holders and ADA vehicles
    - Reduce parking area over time
- Phase in mandatory pay stations at HVRT parking lot, with 'pay and display'
- Line parking spaces at HVRT parking area
- Will encourage Park patrons to Park at designated TSP day-use parking area
- Will limit congestion and difficult driving / parking conditions at Park headquarters

#### *(iii)Alternative 3 – Eliminate parking at HVRT by Park headquarters*

**Considerations**

- There is no longer need for separate parking area for HVRT users in this location
- Will encourage Park patrons to Park at designated TSP day use parking area
- Will limit congestion and difficult driving / parking conditions at Park headquarters

***Preferred Alternative***

**The preferred alternative is (ii) Modify parking at HVRT by Park headquarters.** The planning team selected this alternative because it directs the Park to update this parking area to reflect the needs of the Park and HVRT users. The selected changes allow both Park patrons and TSP to adjust to the new use over time. Status Quo would perpetuate an HVRT parking area no longer in need, and alternative (iii) overlooks the opportunity for new use of the parking area that benefits Park patrons.

### *S) Parking at Under Mountain Road*

***Background***

Parking for TSP's Alander Brook Trail and Robert Brook Trail is located on Under Mountain Road, at a small distance south from the trailhead, providing space for four cars. Parking at the trailhead is not feasible due to difficult terrain, and not allowed. Despite TSP's efforts to block parking at the trailhead, it is frequently used by patrons as an informal parking area, disregarding 'no parking' signs and often removing TSP installed barriers. Additionally, parking at the designated lot is sometimes insufficient, prompting Park users to park along Under Mountain Road. TSP continues to receive complaints from local residents about cars parking illegally. TSP determined that moving the trailhead is not possible. In order to alleviate this problem area, Park staff identified land acquisition near the trailhead as high priority.

***Alternatives Considered***

#### *(i) Status Quo – No changes to parking*

**Considerations**

- Illegal parking by Park patrons at trailhead and on Under Mountain Road will continue
- Parking at current parking area will remain inadequate
- Complaints from local residents will continue

### *(ii) Alternative 2 – Improve parking at Under Mountain Road*

**Considerations**

- Acquire land near trailhead for Alander Brook Trail and Robert Brook Trail in order to provide appropriate parking
- Provide trailhead parking once land is acquired
- Keep existing parking area as overflow parking
- Park patron satisfaction will improve
- Work with local law enforcement to educate visitors about parking regulations

***Preferred Alternative***

**The preferred alternative is (ii) Improve parking at Under Mountain Road**. The Status Quo will perpetuate a long-standing problem. Given that moving the trails is not possible, the selected alternative is the only realistic solution, even if it only becomes feasible after targeted land acquisition has been accomplished and pending available funding.

## *T) Parking at Quarry Hill Road*

***Background***

Parking for the Quarry Hill Trail is on Quarry Hill Road. TSP owns a very narrow trail corridor, and provides parking for four cars at the trailhead. Parking is not enough at times, and visitors Park along the road, in front of private property. Currently there is only one home on the north side of the trail corridor. However, as houses are built, overflow parking will occur in front of residential homes. Land acquisition on the south side of the trailhead presents an opportunity for improved trailhead parking long term.

***Alternatives Considered***

### *(i) Status Quo – No changes to parking at Quarry Hill Road*

**Considerations**

- Inadequate parking will remain
- Park patrons will continue parking along Quarry Hill Road

### *(ii) Alternative 2 – Increase parking at Quarry Hill Road*

**Considerations**

- Acquire land at the trailhead for Quarry Hill Trail in order to provide appropriate parking and to secure a buffer/ wider corridor along the trail
- Expand parking area once land is acquired
- Visitors will not have to Park along Quarry Hill Road. TSP will preclude complaints from nearby residents as homes are built
- Park patron satisfaction will improve
- TSP will prevent complaints from nearby residents as homes are built on either side of trailhead

***Preferred Alternative***

**The preferred alternative is (ii) Increase parking at Quarry Hill Road**. The Status Quo will soon become inappropriate, as private homes are built on either side of the trail and inadequate parking will force visitors to Park in front of them. The selected alternative is a realistic solution, even if it only becomes feasible after targeted land acquisition has been accomplished and pending available funding.

## *U) Parking at Kaye Road*

***Background***

The Trails Plan of this master plan proposes a trail from Kaye Road to provide an alternative, easier, access to the South Taconic Trail and the Taconic Ridge. This trail is conceptual, and will need additional field review prior to finalizing the route. The proposed parking lot for this new trail is envisioned as a shared lot with Harlem Valley Rail Trail users.

***Alternatives Considered***

### *(i) Status Quo – Do not create parking at Kaye Road*

**Considerations**

- Proposed new trail will not have designated parking
- Park patron satisfaction will not improve

### *(ii) Alternative 2 – Create parking for proposed trail at Kaye Road*

**Considerations**

- There is adequate space to provide parking for a proposed new trail at Kaye Road
- Parking will provide safe access to proposed new trail as well as for Harlem Valley Rail Trail users
- Proposed new trail is a much needed, easier alternative to Quarry Hill Trail providing access the South Taconic Trail, and TSP anticipates it will be a popular access trail that needs adequate parking
- Proposed parking area can be shared with Harlem Valley Rail Trail users once this section of the HVRT is completed in the near future

***Preferred Alternative***

**The preferred alternative is (ii) Create parking for proposed trail at Kaye Road**. The planning team selected this alternative because parking for a designated public trail is necessary for the safety of all Park users and those using the roads leading to the trailhead. In addition, the selected action will provide parking for HVRT users, a group TSP welcomes and aims to accommodate. Implementation will occur pending available funding.

## *V) Parking at Rudd Pond Trailhead*

***Background***

The Rudd Pond Trail connects Rudd Pond to the newly extended South Taconic Trail. There is no parking at the trailhead. Instead, parking for the Rudd Pond Trail is at the main Rudd Pond parking area a distance away. The trailhead for Rudd Pond Trail is hard to find. TSP anticipates that as more visitors learn about the South Taconic Trail, more and more patrons will use the Rudd Pond Trail. The Trails Plan of this master plan calls for rerouting the base of this trail along an existing utility line path directly to the main Rudd Pond parking area.

***Alternatives Considered***

### *(i) Status Quo – No changes to parking arrangement*

**Considerations**

- Trailhead for Rudd Pond Trail will remain hard to find
- Trailhead for Rudd Pond Trail will remain a distance away from parking
- Patron satisfaction will not improve

### *(ii) Alternative 2 – Reroute base of Rudd Pond Trail to Rudd Pond parking*

**Considerations**

- Reroute base of Rudd Pond Trail along utility line path to main Rudd Pond parking area

- Patrons will easily find and access the Rudd Pond Trail
- As patrons learn about the extended South Taconic Trail, more and more visitors will use the Rudd Pond Trail
- Repurpose current base of Rudd Pond Trail as utility access for Park staff

***Preferred Alternative***

**The preferred alternative is (ii) Reroute base of Rudd Pond Trail to Rudd Pond parking**. The planning team selected this alternative because it allows Park patrons easy access to the Rudd Pond Trail from the main Rudd Pond parking area, and it directs the Park to eliminate the ill-sited Rudd Pond Trail trailhead.

## *W) Scenic Vistas of TSP*

Taconic State Park, a long and narrow Park along the western Taconic Ridge, is home to a multitude of significant scenic vistas. The South Taconic Trail, traversing this Ridge, and its access trails provide panoramic views west into the Harlem River Valley and beyond to the Catskill Mountains, east to the Taconic Mountains in Connecticut and Massachusetts, and even to Mt. Greylock in the Northern Berkshires, MA. Agency policy (OPRHP, 2009) recognizes that the removal of individual trees and vegetation is appropriate to advance certain management goals, including selective pruning or removal of trees and other vegetation to maintain or restore important scenic overlooks and views. Consistent and improved monitoring and maintenance of these significant resources at TSP will provide expanded opportunities to enjoy the scenic quality of the Park.

The open rocky grassland summit of Brace Mountain is the most extensive scenic overlook in TSP. NYNHP's 2017 report, *Rocky Summit Grassland Natural Communities in New York State Parks* (Ring, 2017), notes that many of the former rocky grassland areas on Brace Mountain have undergone succession to shrubland or woodland community types since their previous survey in 2001. Small areas of rocky summit grassland do persist, chiefly adjacent to trail corridors and sustained in part by human disturbance. Fortunately, human use of this area does not appear to be causing significant negative impacts to the summit's natural cover and very few exotic species were observed. According to NYNHP's report, controlled fires may restore the size of Brace Mountain's rocky summit grassland community and/or extend it to new areas. This fire management recommendation is outside the scope of this master plan's considerations. However, other general recommendations contained in the report would benefit TSP's vista protection goals.

***Alternatives Considered***

### *(i) Status Quo – No changes to scenic vista protection*

**Considerations**

- Scenic vistas will continue to be managed on a case-by-case basis

### *(ii) Alternative 2 – Identify, monitor and protect TSP's scenic vistas*

**Considerations**

- Identify the scenic vistas and viewpoints of TPS, especially along the South Taconic Trail, to be monitored and maintained. Include the lookout from Sunset Rock and the summit of Brace Mountain
- Scenic vistas and viewpoints of TPS will be monitored and maintained regularly and consistently
- Vista maintenance efforts will be coordinated with management recommendations specified in NYNHP's 2017 report (Ring, 2017), such as:
    - monitoring the impact of recreational use, trail erosion, and social trails
    - establishing invasive species prevention zones to preserve the health of summits and other open viewpoints
- Conforms with Agency policy allowing selective pruning or removal of trees and other vegetation to maintain or restore important scenic overlooks and views
- Park patron experience and appreciation for scenic resources will improve
- Will increase protection of the Park's overall scenic quality

***Preferred Alternative***

**The preferred alternative is (ii) Identify, monitor and protect TSP's scenic vistas.** This alternative allows for improved consistency in management of the Park's vistas and viewpoints, including selective pruning or removal of vegetation to maintain or restore these significant resources. The selected alternative will also foster visitor appreciation for the Park's scenic qualities which represent a defining feature of the Park.

## *X) Signage for Taconic State Park*

***Background***

TSP's developed areas are nestled in the rural foothills of the Taconic Mountains, away from Parkways and large roads. Many visitors have difficulty finding the Park, especially its southern entrance at Rudd Pond. Drivers travelling along Taconic Parkway, the main artery of Columbia and Dutchess counties, or Rt. 22, the counties' major eastern roadway, will find no signs indicating TSP nearby. Both Park staff as well as Park patrons have long recognized the need for a wayfinding program directing people to TSP. A new sign program guideline is forthcoming from OPRHP, and TSP intends to facilitate integrating the guidelines into new signage for the Park.

***Alternatives Considered***

### *(i) Status Quo – No changes to signage for TSP*

**Considerations**

- Patron satisfaction will not improve
- Awareness of the Park in the region will not improve
- It will remain difficult to locate TSP from major roadways
- It will remain difficult to find the Park's two developed areas, especially Rudd Pond

### *(ii) Alternative 2 – Facilitate new signage for TSP*

**Considerations**

- Will attract more visitors to TSP
- Awareness for TSP in the region will increase
- Responds to the needs of the Park and current patrons
- Identifies opportunity to integrate forthcoming statewide OPRHP sign program guidelines
- Coordinate signage efforts for the Park between OPRHP's Taconic Region and DOT
- Assess existing signs for the Park, and identify opportunities for new wayfinding
- Identify proximity of TSP along Taconic Parkway in Dutchess and Columbia Counties
- Provide wayfinding signs for:
    - Copake Falls area along Rt. 22 in Hillsdale
    - Rudd Pond area along Rt. 22, Rt. 44, Rt. 63, and possibly others
    - TSP from Massachusetts and Connecticut

***Preferred Alternative***

**The preferred alternative is (ii) Facilitate new signage for TSP.** The planning team selected this alternative because the status quo would perpetuate the undesirable situation of limited awareness of TSP's proximity in the region, as well as the difficulty to locate the Park's two developed areas. The selected alternative directs OPRHP's Taconic Region to collaborate with DOT to encourage wayfinding signs for TSP along main roadways and local roads. The preferred actions will most likely result in the desired outcome of increased visitation to the Park, because it will be easier to locate the Park.

# Chapter 3 – Selection of the Preferred Alternative

**Rationale for Selection**. The core team analyzed the status quo and other alternatives with emphasis on visitor experience and achieving the Park's goals and vision. TSP today operates at a high degree of excellence. Some changes, however, are necessary because the Park no longer fully meets its patrons' recreational needs, it is faced with new pressures on natural resources, and its aging infrastructure needs updating. Staff and patrons have indicated areas where changes and improvements can be made that will enhance the user experience and the variety of recreation options available at the Park.

In choosing the master plan over the status quo, OPRHP is making a commitment to improvements and changes in the Park over the next decade, perhaps longer, which will be in the interest of users and staff, and will have a positive impact on recreation and the natural and cultural resources.

Recreational opportunities are improved for both day use and overnight visitors, pending available funding. The overall trail system will be enhanced including layout, signage and trailheads. The Copake Falls camping loops will be expanded. The Park's three cabin groups will receive upgrades. Patrons will be able to camp in group- as well as backcountry campsites throughout the Park. Court and field game opportunities will be expanded at Copake Falls, and picnicking will be improved at Rudd Pond. Other recreational elements will remain the same, while the Agency will explore emerging strategies to provide swimming at Rudd Pond as the pond continues to revert to wetland.

Natural resources are protected beyond the status quo by recommending Park-specific strategies be developed to protect rare species and to control invasive species and nuisance wildlife. The monitoring and protection of rare and endangered species and water quality of the Park's lakes and streams will continue. The preferred alternative also recommends that a Bird Conservation Area and a Natural Heritage Area be designated for the entire Park.

Cultural resource protection, particularly in the Copake Iron Works Historic District, is enhanced by recommending strong collaboration between the Park, OPRHP's Division of Historic Preservation, and Friends of Taconic State Park to implement improvements.

Educational and interpretive opportunities are improved on by promoting the Park's diverse resources. Park patrons will see enhanced interpretive information throughout the Park describing its significant natural and cultural resources, and will have the opportunity to participate in increased educational programming.

Operations and infrastructure are improved over the status quo by restoring wastewater and water systems; improving circulation and parking, including at trailheads; and expanding electric, telephone, and internet access. Facilities, such as comfort stations and picnic pavilions, will be upgraded, repurposed, or built new. Maintenance facilities will be relocated out of a compromised and historic Copake Iron Works building. Rudd Pond staff will have a permanent work station. The Park will accomplish these improvements exploring all sustainability resources available, and following ADA compatibility standards. Implementation will occur pending available funding.

# Chapter 4 – Environmental Impacts and Mitigation

## Introduction

This chapter focuses on the environmental impacts and mitigation of potential adverse impacts that may result from the implementation of the master plan. For the purpose of SEQR compliance, the two documents together (master plan and Environmental Impact Statement (EIS)) satisfy the requirements for an environmental impact statement as specified in NYCRR §617, the rules and regulations implementing SEQR. A description of the preferred alternative can be found in the master plan document. The environmental setting is discussed in the EIS Chapter 1. Chapter 2 of this document contains the alternatives analysis and the selection of the preferred alternative.

This chapter has two primary parts: a summary of environmental impacts associated with the alternatives considered, and a more detailed analysis of impacts associated with implementation of the master plan, including a discussion of mitigation measures.

## Environmental Impacts of the Preferred Alternatives

Alternatives were analyzed and developed in Chapter 2 for natural resource protection strategies, recreation development and management support at the Park. The analyses and choice of preferred alternatives are based on:

- Information about existing conditions (Chapter 1)
- Consideration of demand for various activities
- Site constraints
- Other considerations as identified in each element resource analyses.

The master plan consists of the combined preferred alternatives for each identified activity.

## Status Quo Alternative

This alternative consists of the current facilities, programs and practices at the Park as described in Chapter 1. Under this alternative, current resource protection, operations, and facility management practices would continue. Any increasing or changing recreational demand on the Park would not be addressed, nor would existing impacts be mitigated. There would be no opportunity to address conservation of the resources under recent changes to Environmental Conservation Law or Parks Recreation and Historic Preservation Law.

Although the Status Quo alternative may not result in any immediate additional adverse environmental impacts, the potential exists for long-term indirect adverse environmental impacts. This is due to the fact that there would be no plan to guide use, protection or development of the Park. If more Park visitors seek to use the Park, and use it in new or unforeseen ways, additional demands will be placed on the natural, cultural and recreational resources. Without the guidance provided by the master plan, which directs more intensive use and development toward areas with capacity for such use and away from the more sensitive areas of the Park, the potential for adverse impacts on environmental resources increases.

Without the guidance of an overall trails plan, as included in the master plan, trail modifications would be proposed and addressed on a case-by-case basis. Undesignated and/or unauthorized trails would continue to proliferate in areas of the Park that might not support such use. Issues such as erosion or the introduction of invasive species of plants and wildlife into the Park would be handled on a case-by-case basis as they arose.

## Preferred Alternative – the Final Master Plan

The final master plan is the compilation of all the preferred alternatives for natural resource protection, recreation development and support facility development elements identified in Chapter 2 of the FEIS. This compilation was subject to a final evaluation and synthesis to assure that there was consistency among the various alternatives. The plan will provide considerable resource protection and recreational benefits. From a long-term perspective, implementation of the Park's master plan will result in a beneficial environmental impact by insuring that recreation development takes place in areas of the Park that are appropriate and effective while the most sensitive areas of the Park will be identified, monitored and provided appropriate stewardship. Environmental impacts of the master plan are discussed more fully in the rest of this chapter.

## Environmental Impacts Associated with Implementation of the Final Master Plan and Proposed Mitigation

The master plan for Taconic State Park seeks to provide improvements to existing natural resource protection strategies and recreation development while providing additional protection of sensitive natural resources within the Park and new and expanded recreational resources. Planning for new facilities in the park reflects this and the proposed location of new or expanded facilities avoids sensitive resources to the extent practicable.

***Land (Topography, Geology and Soils)***

Implementation of the plan will result in some physical change to the land at Taconic State Park. Overall, most of the Park will remain as it is now. New buildings, camping, recreation facilities, and trails will affect 0.35% of TSP. (See table 4 below)

**Table 4 Percentage of Park Land Changed***

| Category | Square Feet | Percentage |
|---|---|---|
| Total Park Acreage | 6183 acres | 100 |
| New Copake Falls camping loop, including campsites, comfort station, access road, water, electric, and septic system | 10.26 acres | 0.1600 |
| New Copake Falls pavilion | 0.057 acres | 0.0009 |
| New Copake Falls maintenance facility, including building, parking, and surrounding utility areas | 0.23 acres | 0.0030 |
| New dog run for campers | 0.23 acres | 0.0030 |
| New Rudd Pond circulation and ADA compliant parking area | 0.19 acres | 0.0030 |
| Rudd Pond water distribution system upgrade | 10 acres | 0.1600 |
| Rudd Pond picnic pavilion additional roof area | 0.01 acres | 0.0001 |
| Rudd Pond relocated campsites to nearby woods | 1.03 acres | 0.0170 |
| New trailhead parking areas | 0.07 acres | 0.0010 |
| New or relocated trails | 1.95 acres | 0.0300 |
| Removal of Rudd Pond trailer | minus 0.01 acres | 0.0001 |
| Closed trails | minus 1.11 acres | 0.0100 |
| ***Net New Development*** | ***22.9 acres*** | ***0.3670*** |

***Source: OPRHP GIS and Planning Bureaus**

Impacts to land will occur where the master plan calls for new buildings and recreational facilities, their alteration or removal. Those proposed in the plan include: new Copake Falls camping loop with comfort station and septic system, relocated maintenance building, new pavilion in Copake Falls and additional roof area for Rudd Pond picnic pavilion, a ball field at Copake Falls, new road and ADA parking spots at Rudd Pond, upgrade to the Rudd Pond water distribution system, removal of staff trailer at Rudd Pond, and some new, relocated or closed trails.

The proposed Copake Falls camping area and its infrastructure, the new pavilion and maintenance building at Copake Falls, as well as the proposed road and upgraded water distribution lines at Rudd Pond will require some grading. The proposed location of the new camping loop is in a CCC-era plantation with non-native evergreens, and the other facilities are to be installed in current lawn areas. New grading will total 20.73 acres. To minimize the amount of grading needed, site specific design of these facilities will incorporate the existing grade levels where possible. Potential impacts on land would also result from the construction of new trails and relocation of existing trails. The net result of these activities will be an increase in trail miles of approximately 1.73 miles. At an average width of 4 feet this means an increase of 0.84 acres.

Impacts of trail construction will vary based on the proposed use of the trail, its proposed surfacing, and its location with respect to steep slopes and streams. Disturbance of land will be limited to the required width of the trail corridor. Trail construction will follow the policies and guidelines for trail building that have been established by recognized trail organizations and government agencies. Adherence to these guidelines will

assure that work is completed in a manner that maximizes protection of Park resources.

Many of the soils at the Park have limitations for certain types of construction due to shallow depth to bedrock and other factors (NRCS, 2016). Construction in these areas will be designed to accommodate these factors and will minimize impacts to existing soils.

### *Water*

It is not anticipated that the implementation of the master plan will have significant adverse environmental impacts on water resources. Erosion and sediment controls will be installed as needed during construction. Several projects such as trail rehabilitation will reduce erosion, restore impacted areas and in turn provide better protection of streams and ponds at the Park. Several of the natural resource management strategies provide guidance for the future management and protection of important water resources such as Rudd Pond, and the Park's other ponds, streams and wetlands.

**Impact on Pond and Stream Water Quality**. No projects in the master plan will have a detrimental impact on water quality in Ore Pit Pond, Rudd Pond, Weed Mines Pond, Iron Mine Pond, or any of the stream courses through the Park. Erosion and sediment controls will be installed as needed during construction. There will be a beneficial impact by moving some trails out of wet areas reducing runoff.

No new buildings or facilities are proposed in flood-prone areas within the Park.

There will be some beneficial impacts to aquatic invasive plant control in Rudd Pond and Weed Mines Pond through signage and aquatic weed disposal stations.

**Impact on Ground Water Quality**. Increased stormwater runoff can affect surface waters such as streams and ponds by increasing the sediment load and introducing pollutants that are carried by the runoff. Stormwater can also cause erosion and changes to stream habitats. This has a direct effect on the biodiversity of the stream and its corridor.

Stormwater runoff is increased by the addition of impervious surfaces such as building roofs, roadways, trails and parking lots. Current pavement and impervious surfaces in the Park are fairly limited consisting mostly of the major roadways, parking areas, and Park buildings including cabins and pavilions.

There is minimal new pavement proposed in the master plan, consisting of a new road and four ADA compliant parking spaces at Rudd Pond, totaling 0.19 acres, or 0.18% of total Park area.

The surface area of new buildings with impervious roofs will include the new maintenance facility and new pavilion at Copake Falls, and roof extension of the Rudd Pond picnic pavilion (currently a bath house). The proposed Copake Falls camping loop will have impervious camp pads, roads and a comfort station for the new camping loop. The total maximum acreage of all of these new impervious surfaces is very small, approximately 0.56 acres.

An increase in impervious surfaces could result in an increase in the quantity and velocity of runoff generated during storm events. Permeable materials will be used whenever practical with respect to site conditions, cost and operations, especially for parking areas and for areas that will not need to be plowed in the winter time. All new roads and parking areas will have drainage infrastructure designed to mitigate stormwater runoff. Green design will be utilized for the buildings as much as possible.

Work on trails including improvements to existing trails and undesignated trails, as well as proposed new trails, have the potential to impact water resources in the Park. Standard water abatement techniques will help remediate these concerns. Work on existing trails and closing and restoring undesignated trails will be undertaken using the established guidelines referenced in the Trails Plan. Trail areas that require more than routine measures will be identified through the approval process described in the plan and remedies, such as construction of culverts, bridges or boardwalks, will be planned in consultation with regional and Park staff. Regional staff will review proposals and consult with NYS Department of Environmental Conservation and/or the US Army Corps of Engineers as appropriate.

At the time of implementation, an erosion control plan will be prepared for construction projects proposed in the master plan. Any projects that disturb one acre or more will be subject to the State Pollution Discharge Elimination System (SPDES) General Permit process. Best management practices (BMPs) as described in the New York Standards and Specifications for Erosion and Sediment Control (DEC, 2016d) will be used to reduce impacts to soils on the project sites. Some measures which will be used include minimizing soil disturbance and vegetation clearing, the use of silt fencing and straw bales where needed, preservation of

vegetated buffers, and seeding and mulching of disturbed areas as soon as possible following work.

During field layout of trails, the agency will attempt to minimize stream crossings to the extent possible and retain a buffer between new trails and water bodies. All new trail work will be designed to control stormwater and minimize erosion.

### *Air*

Impacts to air quality are expected to be minor and of a short-term nature. When fully implemented, the master plan will result in increased use of the Park. Air quality impacts from increased traffic, however, are not expected to be significant. Short-term, temporary air quality impacts may occur due to a minor temporary increase in vehicle exhaust and some generation of dust during construction. These will be temporary and localized and will occur over time as the plan is implemented. Air quality impacts from construction vehicles will be mitigated by assuring that these vehicles are in good running condition and are not producing excessive exhaust. There will be no impact to air quality from new camping loop, as the total number of campsites will remain the same.

## Biological Resources/Ecology

Limited new development is proposed in this master plan and, therefore, direct impacts to biological resources are expected to be minimal. Projects have been sited in areas with previous development, limited environmental sensitivity and general accessibility to existing infrastructure. The importance of natural resources within the Park is recognized by the Bird Conservation Area and Natural Heritage Area designations proposed in the master plan, and placement of proposed facilities is in accordance with both designations.

### *Ecological Communities*

NYNHP has identified 25 ecological community types in TSP, including natural and culturally derived types as defined in the NYNHP classification (Edinger et al, 2014). Over 90 percent of the Park is in natural community types with Appalachian Oak-Hickory Forest and Chestnut Oak Forest dominating the landscape. Nine of the natural community types, covering most of Taconic State Park, are considered ecologically significant from a statewide perspective (Figure 9). Hemlock-Northern Hardwood Forest lines many of the ravines and streams, and large patches of Maple-Basswood Rich Mesic Forest occur on cool west-facing mid-slopes. Adding to the diversity of biota are the interspersion of smaller patches of less common community types including Acidic Talus Slope Woodland, Pitch Pine-Oak-Heath Rocky Summit, Rocky Summit Grasslands, Shrub Swamp, and two types of rare calcareous wetlands known as fens (Figure 8).

Master plan implementation will have some impact on four statewide significant communities in the Park (Table 5). These impacts will be mitigated by providing on-site design implementation to reduce vegetation loss.

Facility and infrastructure improvements outlined in the master plan, including comfort stations, septic, camping, maintenance facility, and picnic pavilions are sited in areas that are already developed or in culturally derived natural community types, primarily lawn.

Impact to natural communities from construction and reroute of trails will be mitigated by careful assessment of the trail routes on site before any construction begins. Construction will be monitored to avoid any rare plants, and to insure erosion controls are in place.

**Table 5 New Acreage of Development in Significant Natural Communities***

| Significant Natural Communities Affected | Acreage | Development | Percentage |
|---|---|---|---|
| Appalachian oak-hickory forest | 3022 | 4.14 acres | 0.13% |
| Chestnut oak forest | 2113 | 0.81 acres | 0.03% |
| Hemlock-northern hardwood forest | 656 | 0.27 acres | 0.04% |
| Maple-basswood rich mesic forest | 316 | 0.06 acres | 0.01% |
| ***Net significant natural community acreage affected by development*** | 6,107 acres | 5.28 acres | 0.08% |

***Source: Park acreage for Significant Natural Communities provided by NYNHP**
**Park acreage for development provided by OPRHP GIS and Planning Bureaus**

### *Flora*

The construction of new facilities will require removal of some minor amounts of vegetation during construction. For buildings and other built facilities, the vegetation lost will primarily be in the building footprint and its associated outdoor spaces which are already in a lawn or developed area.

The proposed redesign of the Copake Falls day use area calls for planting a large quantity of shade trees. In addition, the new pavilion and ball field will be designed around the existing landscape to preserve existing trees.

The proposed new camping loop will require removal of some trees in a CCC-era plantation with non-native evergreens. However, the new camping area will reduce campsite density at the Park, allowing for revegetation of currently open areas.

For trails, the impacts will be mitigated where new trail segments are built by requiring on site selection of the most appropriate route through the area, trimming some vegetation and installing signs or blazes to mark the trail but minimizing removal of existing vegetation.

None of the construction/rehabilitation proposed under the master plan will be located near known rare plant locations; however, the Natural Heritage Survey report calls for a survey for rare plants prior to any development or new management practices. During the design of the proposed rehabilitation and development projects, the regional biologist will be consulted regarding the need for additional rare plant surveys in these areas and regarding any trees to be removed.

Areas that will require vegetative restoration or will be part of a design will incorporate the use of native species or historically appropriate non-invasive species that are indigenous to the area. The regional landscape architect and the regional biologist will be consulted regarding the appropriate species to be used in any planting plans. In addition, facility design and implementation will be consistent with OPRHP's Tree Management and Native Plants policies (OPRHP, 2009 and OPRHP, 2015).

### *Fauna*

Some positive impacts to animals in the Park may occur due to the BCA and NHA designations, as well as the closure or rerouting of some trails.

The designation of a Bird Conservation Area (BCA) will provide added recognition of the importance of the facility for bird habitat, particularly as a migratory bird concentration area and diverse species concentration site. A Management Guidance Summary (MGS) has been developed and is included in Appendix C. The MGS provides site specific recommendations relating to habitat protection, access, operation and education and outreach programs focusing on the protection of birds and bird habitats.

Current wildlife management practices will continue in consultation with NYS DEC. The plan's natural resource management strategies call for the continued passive management of wildlife following the agency's guidelines (OPRHP, 2010). Control of nuisance Canada geese around heavily used recreational areas, such as Rudd Pond, has been successful and controls such as egg treatment will continue.

Minimal impacts to the fauna are expected due to the small amount of physical change being proposed in the master plan. In general, areas proposed for improvements either through rehabilitation or new construction are not located near sensitive environmental areas and are not expected to affect wildlife in the area. Construction in OPRHP facilities is usually planned for the late fall and winter when public use is lower. This timing also minimizes any disturbance to wildlife by avoiding periods of higher biological activity, such as bird breeding seasons and bat roosting. Similarly, any tree removals will be timed to occur between November and December to minimize disturbance to bats and other wildlife. Outside of this window, consultation will occur with the regional biologist to minimize impacts to fauna. Site-specific design of new facilities and trails will include surveys for sensitive or rare species or habitats. If needed, proposed facilities or trails will be re-located to avoid or minimize any adverse impacts to wildlife.

### *Invasive Species*

Trail uses, boating and camping can facilitate the spread of invasive species. Invasive plant seeds can be inadvertently introduced on construction equipment and through the use of mulch, imported soil, gravel, and sod. Firewood also poses a risk of introduction of invasive forest pests when it is transported from its location of origin to new locations. Firewood is often derived from trees that have died or are weakened or damaged. Their demise or weakened state may have been brought about by invasive insects or diseases, even though

the exact pests have not been found or identified.

Implementation of an invasive species management plan at the Park will focus on prevention, identification of invasives, early detection, rapid response, and eradication from sensitive habitat areas.

It is important to implement Best Management Practices to minimize the spread of invasive species. Practices such as proper material disposal and equipment cleaning methods limit the potential of invasives to establish in new locations within and beyond a site. DOT has developed useful BMPs for invasive plant control (DOT 2009) that can be tailored to agency or Park-specific projects and operations. These methods will be implemented at the Park during construction.

Forest pests are an important invasive species threat in the Park. The Emerald Ash Borer and Asian Long-horned beetle have the potential to result in major damage to the forests if they are introduced into the Park. The Hemlock Woolley Adelgid has already been identified in the Park. Precautions such as surveying and monitoring for such species will be included as part of the invasive species strategy. Since camping is a long-standing recreation element in the Park, enforcement of firewood regulations and continuing to provide Park sourced firewood to campers is critical. Educational information will be provided, including brochures, posters, bookmarks and other materials as available, for campers. Educational materials about how to prevent introduction and spread of aquatic invasive species is also available at the Park.

New construction projects as well as day-to-day operations have the potential for spreading invasives. Park and regional environmental staff are very knowledgeable regarding the impacts of invasive species. Ongoing interpretive programs and training will improve their ability to prevent the spread of invasives. In addition, all equipment, soils, straw and other construction materials used in the Park will be inspected to assure it is not transporting invasive species.

## Cultural Resources

The master plan will have beneficial impacts on the many significant cultural resources within the Park, including their protection, stabilization or upgrade. Educational materials including displays at the Copake Iron Works Museum and interpretive signage throughout the Park will continue to interpret the cultural resources in the Park and will continue to increase understanding of the Park's history.

The master plan will have no adverse impacts on cultural or historic resources either listed on or determined eligible for listing on the National Register of Historic Places. Any projects proposed for structures that are on or eligible for the State or National Register of Historic Places will be reviewed by OPRHP's Division of Historic Preservation unless it falls within a categorical exclusion (see Appendix E for listing). Any projects or activities that require ground disturbance either associated with the master plan or routine operation and maintenance will require review by OPRHP's Division of Historic Preservation to ensure that such resources are not adversely impacted. The Categorical Exclusion Listing (Appendix E) also includes ground disturbance projects that do not require review.

## Scenic Resources

Implementation of the master plan will not result in any significant adverse impacts on scenic resources in the Park. The recommendations in the plan for the protection of natural, historic and recreational resources will result in protection of the Park's scenic resources and vistas as well. The plan proposes that potential scenic viewpoints be identified in order to take advantage of underutilized scenic resources, and recommends continued monitoring and maintenance of current as well as to-be-identified scenic vistas throughout the Park following Agency policy (OPRHP, 2009) and NYNHP recommentaions (Ring, 2017). Similarly, projects proposed in the Park will not have any significant effect on the view of the Park from off site.

## Recreation

Implementation of the master plan will result in improvements to all aspects of the Park's recreational facilities, including upgrade of Iron Works, Bash Bish, and Greenwich Cabins, renovation/ new construction of comfort stations and picnic pavilions, new site design for the Copake Falls' day use area to include ball field(s), improvements to the Copake Iron Works Historic District and trails, new camping layout at Copake Falls and Rudd Pond to reduce campsite density, conversion of Rudd Pond bath house into picnic pavilion, as well as trail improvement and construction of new trails. Facility upgrades and other recreational improvements will follow ADA guidelines. Playgrounds will be improved to provide opportunities for 3-6-year-old children. There will also be enhanced interpretive opportunities, such as the installation of educational panels at trailheads and various points throughout the Park.

Improvements to the trail system will provide a variety of recreation experiences for hikers, bikers, cross-country skiers, and snowshoers. The trail system will continue to include single track foot trails, wider multi-use and woods road trails. Designated group camping and backcountry camp sites will increase the diversity of recreational opportunities patrons can enjoy the Park and its trails.

Guarded swimming will continue at the popular Ore Pit Pond. This pond is exempt from ADA compliance due to its physical characteristics. Current recreational opportunities at Rudd Pond will remain, although may be altered in the future depending on financial resources and management techniques available to the Park to hold back the pond's natural transition to wetland.

The 6,183 acres of public parkland in the Taconic Region are an important piece of the region's open space system. The Park provides significant open space that will continue to be protected under the master plan. OPRHP will evaluate and consider acquisition of fee, title or easements on adjacent open space areas as they become available. It will also monitor any development proposals that may affect the quality of its scenic and open space resources.

## Open Space

There will be no adverse impacts to open space resources resulting from the implementation of the master plan. If acquisition recommendations are implemented the impact will be positive in adding acreage of open space in an area of increasing development pressure.

## Transportation, Access and Traffic

Implementation of the master plan will result in some access improvements, but does not call for any significant changes to traffic patterns or access to Taconic State Park. Traffic flow at Rudd Pond will be adjusted to improve access and circulation and will include four ADA compliant parking spots and improved signage.

Overall, the quantity of parking spaces at the Park will increase slightly. The master plan calls for improved access and parking at Bash Bish Falls. During peak capacity, cars will continue to be directed to grass overflow parking areas. Other trailhead parking improvements will provide for more designated spots and safer access to the Park's trails.

Full implementation of the master plan can result in increased visitation to the Park and associated potential increase in traffic. The capacity of the existing road system was examined during the planning process and it was determined that it generally functions effectively and should be able to accommodate added use and safe traffic flow as well.

## Public Health and Safety

Public health and safety are important elements in Park operations. New or substantially rehabilitated facilities will be designed and constructed to meet all applicable health and safety codes including compliance with the Americans with Disabilities Act. Design and rehabilitation of infrastructure systems such as electric, water, and sewer where needed will ensure public health protection.

## Energy, Noise and Odor

Sustainability principles and energy efficiency will be incorporated into the design of all new Park buildings, especially the new Park maintenance facility. Master plan implementation may result in some minor temporary increases in noise during construction.

## Unavoidable Adverse Impacts

The proposed master plan will result in some unavoidable adverse impacts. There will be some minimal permanent loss of pervious soil surface and vegetative cover as a result of construction of the new visitor center, additional camping area, trails and other proposed new facilities. This will be monitored by Park staff and action will be taken, if necessary, to prevent any significant impacts from occurring.

In addition to the impacts outlined above, there will also be temporary adverse air and noise impacts (e.g. fugitive dust, noise from construction equipment and vehicles, etc.) associated with construction of proposed improvements.

### Irreversible and Irretrievable Commitments of Resources

The planning, development and implementation of this master plan including construction of a new maintenance facility, expanded camping area and other new proposed facilities, infrastructure and trails will involve the irreversible and irretrievable commitment of public resources in the form of time, labor and materials. It will also require a commitment to the long-term operation and maintenance costs of the Park.

### Growth Inducement

Implementation of the master plan may result in some increased recreational use of the Park. This increased recreational use will be carefully managed in an effort to support the vision and goals established to maintain the quality of the Park's important natural, scenic and historic resources. There will be positive, on-going, economic impacts to the communities surrounding the Park in the form of business to gas stations, restaurants and convenience stores. Tourism related expenditures for activities such as camping and day-use can be an element in the economic vitality of localities. Additional camping, new recreation activities, significant natural resources and the Park's location near state and county roadways, help to make this a reality.

## Supplemental Environmental Review

Portions of this master plan/EIS are somewhat general or conceptual. Decisions regarding the type and extent of certain actions will be dependent on the findings from specific studies or analyses still to be completed. For example, the specific site designs for the maintenance facility, the new campground loop or the backcountry campsite location will require more detailed site analysis. The findings from these site-specific evaluations may identify impacts that were not addressed or known during the development of this master plan/EIS. Under such a circumstance, an additional or supplemental environmental review may be required.

As part of the agency's responsibility under the State Environmental Quality Review Act, OPRHP will review proposed implementation projects with respect to consistency with this master plan/EIS. Projects found by OPRHP to be consistent with the plan can go forward without any additional review. Other types of proposals may require additional review ranging from completion of an environmental assessment form to perhaps a site specific environmental impact statement.

To assist in this consistency evaluation, the following types of actions have been identified in 6 NYCRR Part 617 as likely to require additional review under SEQR:

- Any new actions not addressed within this EIS that do not meet the Type II categories identified in Part 617, the rules and regulations implementing SEQR;
- Any change from the preferred alternatives for natural resource protection, recreational and facility development (including trails) or other elements of the plan which would result in significant environmental impacts not disclosed in this EIS;
- Any leases, easements, memoranda of understanding, or other agreements between OPRHP and private entities or other agencies that affect resources in a manner that is not sufficiently addressed in this EIS;
- Any project determined through review by the OPRHP Division for Historic Preservation to have an Adverse Impact on historic or cultural resources at the Park;
- Any proposals for new trails, trail segments or trail uses not addressed in the Trails Plan that would affect resources in a manner not sufficiently addressed in this EIS;
- Site design and new location for the maintenance facility at Copake Falls, the new campground loop at Copake Falls, updated campsite layout at Rudd Pond, backcountry campsite location, as well as parking areas and trailheads, as the scope of work for these projects is not known at this time.

# Chapter 5 – Comments and Responses

## Introduction

This chapter contains the responses to the comments received by OPRHP on the Draft Master Plan and Draft Environmental Impact Statement (DEIS) for Taconic State Park. The Draft Master Plan/DEIS was issued on August 2, 2017. Two public hearings were held: August 16, 2017 in Copake, NY at the Town of Copake Town Hall, and September 27, 2017 in Millerton, NY at the Millerton American Legion Post #178. The comment period ended October 20, 2017.

Out of the twenty-one attendees combined, seven people spoke during the Public Hearing. Their comments were recorded. During the comment period for the Draft Master Plan/DEIS, the Agency received seven written comments by letter and email. A list of all persons providing comments is included at the end of this chapter.

OPRHP appreciates the time and effort that persons interested in the future of Taconic State Park have invested in their review and comments on the Draft Master Plan/DEIS, as well as their participation in the public hearings.

The types of comments received included document editing suggestions, requests for clarification of information presented in the document, and comments related to specific aspects of the plan. All comments were reviewed and organized by categories.

Responses to these comments are found in this section and were considered in revisions found in this Final Master Plan/Final Environmental Impact Statement (FEIS).

## Significant Changes to the Draft Master Plan and DEIS in the Final Master Plan and FEIS

- Detailed information about management of Rudd Pond was included both in the ‘Strategies for Natural Resource Protection’ chapter and the ‘Recreational Resource Protection chapter’ of the EIS.
- Habitat protection and momitoring for New England cottontail was included in the ‘Rare, Threatened and Endangered Plants and Animals’ discussion under ‘Natural Resources’ in both the EIS and master plan, and an alternative for active NEC monitoring was included under ‘Wildlife Resources’ in the ‘Development of Alternatives’ chapter of the EIS.
- Hunting regulations for turkey, black bear and small game were revised in the EIS and master plan.
- Protection of TSP’s scenic vistas was added to the EIS and master plan.
- The Trails Plan of the EIS clarified the preferred alternative selection for Robert Brook Trail; included an alternative for an interpretive trail by Rudd Pond; and included the alternative for bike trail access between Rudd Pond and the Harlem Valley Rail Trail. Changes were made to the corresponding action items in the master plan.
- The Timeline outlined in the master plan has been adjusted to elevate several Rudd Pond area improvements.

## Responses to Comments

The following section contains a detailed list of comments received from the public during the comment period and public hearings, along with Agency responses. The comments are organized by category. Each category heading is followed by summarized comments. Following each summarized comment is the Agency’s response.

## Natural Resource Protection

### *Comment – Bird Conservation Area*

The commenter expressed support for designating the entirety of Taconic State Park as Bird Conservation Area as it meets two criteria set out in the NYS Environmental Conservation Law.

### *Response:*

Thank you for your comment.

### *Comment – Natural Heritage Area*

The commenter expressed support for designating the entirety of Taconic State Park as Natural Heritage Area to highlight and protect significant natural communities and rare wildlife.

### *Response:*

Thank you for your comment.

### *Comment – Park Preserve or Park Preservation Area:*

A question was raised as to why the Agency recommends no Park Preserve or Park Preservation Area designation, while the DEIS provides ample argument to merit either one. The commenter foresaw no tradeoff for the Park or the visitor experience, and urged the Agency to heighten protection of TSP's biodiversity and unique resources.

### *Response:*

Thank you for your comment. The Agency recognizes the exceptional natural resources of the Park and their regional significance, and will continue to steward them with utmost sensitivity. The lack of a Park Preserve or Park Preservation Area designation does not alter the Agency's practice and commitment to these unique resources and biodiversity. Future improvements to TSP will be thoroughly reviewed and vetted in accordance with these considerations. The Agency resolved that the Bird Conservation Area and Natural Heritage Area designations are sufficient at this time to highlight the Park's unique resources.

### *Comment – Invasive Species*

The commenter expressed support for developing a comprehensive invasive species management plan and rapid response following an invasives introduction given the relative proximity of the New York seaport, a known hotspot for invasives introductions.

### *Response:*

Thank you for your comment.

## Recreational Resources

### *Comment – Create Ice Skating Rink in Copake Falls*

A suggestion was made to create an ice skating rink in the developed Copake Falls day-use area of the Park, either using the Kiddie Pool or the parking area, and to allow ice skating during set hours.

### *Response*

Thank you for this good suggestion. The Agency added this item to the EIS under 'Day Use Area at Copake Falls' and will incorporate a designated ice skating rink in the site plan it intends to develop for the Copake Falls day-use area. Currently, there is opportunity for ice skating in Copake's Town Park. TSP's Kiddie Pool is unfortunately not a viable option because freezing and thawing will damage its masonry, plus there is constant spring water moving through the Kiddie Pool and this moving spring water would undermine the ice. The parking area is not a viable option either as it is not level and it would be cost prohibitive to level it to retain ice.

### *Comment – Support for Copake Iron Works*

Commenter expressed appreciation for the Agency's continued support for the Copake Iron Works, stated in

the master plan, and they emphasized the importance of this asset for the Park and the region.

### *Response*

Thank you for your comment.

### *Comment – Allow Swimming at Iron Mine Pond*

A suggestion was made to create a new guarded swimming area in Iron Mine Pond as an alternative to guarded swimming in Rudd Pond.

### *Response*

Iron Mine Pond is a beautiful gem in the Park with a serene setting. The master plan/ EIS considered the option of providing guarded swimming here and concluded that it cannot provide an alternative to guarded swimming in Rudd Pond: Iron Mine Pond is very deep with steep banks, so guarded swimming cannot be made family friendly or ADA compliant. Additionally, a swimming area with lifeguards, other staff, and necessary infrastructure (comfort stations, accessible roadways, internet and phone access, etc.) would be cost prohibitive to the Agency. The 'Swimming at Rudd Pond' section of EIS under 'Strategies for Recreational Resource Protection' provides further detail on this alternative. The Park will continue to offer guarded swimming at Rudd Pond.

### *Comment – Keep Iron Mine Pond Free of Swimming*

The commenter expressed desire that TSP keep Iron Mine Pond free of swimming, and protect its natural beauty and the solitude of the Pond's setting.

### *Response*

Thank you for the comment. See our reply to the comment above.

### *Comment – Continue Swimming in Rudd Pond*

Commenters expressed strong desire to have guarded swimming continue at Rudd Pond, and that the Park continue controlling aquatic vegetation growth in the Pond.

### *Response*

The Park is committed to continue guarded swimming, boating, and fishing in Rudd Pond, and recognizes the recreational as well as aesthetic reasons to maintain the Pond as an open body of water. The Park has been managing aquatic vegetation growth in this man-made body of water for decades, and considers its control the essential tool to maintain recreation in the Pond. The Park welcomes discussions with local and regional officials to explore ways that their office might help identify funding for a weed harvester or similar machinery. Any other weed-control method, such as dredging or bioaugmentation, or their combination, will require a separate environmental review. It is difficult to identify what other methods the Agency will consider as many of the alternatives are emergent technologies or techniques.

### *Comment – Eliminate Swimming in Rudd Pond*

The commenter suggested that TSP eliminate guarded swimming in Rudd Pond as it is a weedy body of water, and allow the Pond to become a natural habitat.

### *Response*

The Agency is committed to continue guarded swimming at Rudd Pond due to strong interest from surrounding communities, see response above.

### *Comment – Build a Swimming Pool at Rudd Pond*

A suggestion was made to build a swimming pool at Rudd Pond day-use area as an alternative to swimming in Rudd Pond.

### *Response*

Building a swimming pool at the Park would not only be cost prohibitive for the Agency, but would also contradict TSP's vision for recreational and natural resource stewardship.

### *Comment – Allow Black Bear Hunting*

Commenters expressed the desire that TSP allow black bear hunting in same areas that are currently designated for deer hunting to keep black bear populations and the number of nuisance bears in the region low.

### *Response*

OPRHP recognizes hunting as both a recreational activity and a wildlife management tool. It is the desire of the Agency to have hunting in state parks be as consistent with DEC regulations as possible with only those additional restrictions that are necessary to protect public safety, address operational concerns and reduce potential conflicts with other user groups. The Agency also recognizes that each of its facilities is unique and what is appropriate in one facility may not be appropriate in another. OPRHP regulates hunting in its facilities by requiring all hunters obtain a regional OPRHP park permit. This permitting process allows facility managers to tailor hunting in their facility to these unique conditions.

The Agency understands the need to keep black bear populations in this region stable and recognizes that education on coexisting with black bears is also an important component of black bear management. As black bear hunting seasons and legal implements coincide with seasons and implements for deer hunting, there should not be any additional risk to public safety, operational concerns, or conflicts with other user groups by allowing black bear hunting in areas open for deer hunting. The Agency agrees that expanding the hunting program to include black bears is appropriate. The Park's hunting program will be reviewed annually, with changes made as necessary.

The EIS will be also corrected on this topic, as black bear hunting is not currently allowed at Lake Taghkanic State Park.

### *Comment – Allow Turkey Hunting with Shotgun*

Commenters expressed the desire that TSP allow the use of shotguns for turkey hunting during the fall and spring seasons, pointing out that shotgun hunting would greatly increase the ability of all hunters to successfully take a turkey at the Park. Commenters requested that the use of shotguns be in the spring be allowed until noon to coincide with DEC regulations. Commenters also requested that the Agency allow youth hunters to be introduced to turkey hunting at TSP.

### *Response*

Thank you for your comment. The Agency reexamined turkey hunting in the Park. Both the spring and fall turkey hunting seasons coincide with periods of high public use of the Park, most of which is concentrated along the popular trails. However, through the OPRHP hunting permit process, turkey hunting can be prohibited in the high use areas. Therefore, the Agency agrees that shotgun hunting for turkey can be expanded until noon during the spring turkey hunting season in specific areas of the Park. Similarly, the Agency feels that shotgun hunting can be allowed in these specific areas from sunrise to sunset to coincide with DEC fall turkey hunting regulations. At this time, the Agency does not feel there is enough demand to open the Park for the youth turkey season. Turkey hunting in the Park will be reviewed annually and changes will be made as necessary. The alternative for turkey hunting has been revised in the EIS accordingly.

### *Comment – Revise Deer Hunting Regulations*

Commenters expressed the desire that TSP expand deer hunting to lands currently not open to deer hunting, provide additional hunter access points to the Park, and develop an improved hunting map.

### *Response*

Thank you for your comment. The majority of TSP is already open to deer hunting, excluding only areas in the Park where there are public safety concerns or there is no public access. At this time, there are no additional areas in the Park that can be opened to deer hunting. The EIS was corrected from saying "No hunting is allowed off the Harlem Valley Rail Trail" to "No hunting is allowed on the Harlem Valley Rail Trail," as hunters are allowed to hunt adjacent to HVRT on land currently open to hunting as well as to follow or cross over the Rail Trail to gain access to lands open to hunting. The Agency has developed an Interim Management Guide for the Harlem Valley Rail Trail in 2011 (available at: https://parks.ny.gov/inside-our-agency/documents/HarlemValleyRailTrail/HarlemValleyRailTrailManagementGuide.pdf), therefore NY State Park lands associated with HVRT were not included in the development of the TSP master plan.

The Agency agrees there may be a need for additional hunting access at TSP and is willing to explore the possibility of providing additional areas for hunting access. The Agency also agrees on the need for an improved hunting map and will create a revised hunting map. The alternative for deer hunting has been revised accordingly in the EIS.

### *Comment – Provide Additional Small Game Hunting Opportunities*

Commenters expressed the desire that TSP provide additional small game hunting opportunities, including hunting for waterfowl, migratory- and upland game birds, and stocked ring-necked pheasants.

### *Response*

The Agency agrees that small game hunting is an appropriate recreational activity for the Park in select areas. The Park will review additional opportunities for small game hunting and make changes as appropriate, in a manner that allows for monitoring the potential impacts to New England Cottontails, in coordination with DEC and NYNHP. The stocking of pheasants is prohibited in State Parks and Historic Sites under OPRHP's Policy on Fish and Wildlife Management.

### *Comment – Manage TSP habitat for New England Cottontail and Balance New England Cottontail Protection with Small Game Hunting*

Commenters urged the agency to not only list New England cottontail (NEC) in Appendix B of the EIS, but also include it in the main text of the master plan and EIS, pointing to the fact that the NEC is a NYS High Priority Species of Greatest Conservation Need and until last year was a candidate for Federal Listing as an endangered or threatened species. Due to this fact, commenters also urged the Agency to develop a more active monitoring and management approach to this native rabbit. Finally, commenters expressed concern over permitting small game hunting in area(s) of the Park where New England cottontail currently occur.

### *Response*

The Agency agrees that it is important to highlight the presence of New England cottontail in and around TSP, so additional text noting this species has been added to the 'Rare, Threatened and Endangered Plants and Animals' paragraph, 'Natural Resources' section of Chapter 1 in the EIS. Appendix B of the EIS includes additional species that may not have been documented in the Park, but were documented in the surrounding area.

The 'Rare, Threatened, and Endangered Species' paragraph in the 'Natural Resources' section of the master plan includes only those species that have been documented in the Park by the New York Natural Heritage Program. The Agency agrees that it is important to highlight the number of Species of Greatest Conservation Need that are found in and around the Park, so additional text listing this number and the number of State Species of Special Concern has been added to the 'Rare, Threatened, and Endangered Species' paragraph in the 'Natural Resources' section of the master plan.

The Agency also agrees with the comments regarding active monitoring of New England cottontail and their habitats in the Park, and will explore future management planning and actions to benefit this species as part of the Agency's Natural Resource Stewardship initiative, in coordination with NYNHP and NYS DEC.

The Agency will review additional opportunities for small game hunting at TSP in a manner that allows for monitoring the potential impacts of small game hunting on New England Cottontails, in coordination with NYNHP and DEC.

## Trails

### *Comment – Keep Robert Brook Trail Open*

The commenter expressed the desire that TSP keep the Robert Brook Trail open and select to improve this trail as it provides a satisfying loop with the Alander Brook Trail.

### *Response:*

TSP intends to keep Robert Brook Trail open and improve or reroute sections of it to make this trail sustainable. The Trails Plan rephrased the preferred alternative selection to clarify the Agency's intention.

### *Comment – Build Nature Trail Around Rudd Pond*

The commenter suggested TSP build a nature trail around Rudd Pond with signage about local plants and wildlife to attract more visitors to the Pond.

### *Response:*

The Park does not own all the land surrounding Rudd Pond, so a loop trail is unfortunately not feasible. However, the Agency will explore this interesting idea of an interpretive, family friendly nature trail at least partially by the Pond. This alternative has been added to the Trails Plan.

### *Comment – Do Not Build Trail and Trail-Head Parking on Kaye Road*

The commenter expressed the desire that the Agency reconsider the proposed trail and trail-head parking off Kaye Road to minimize traffic volume and potential disturbance to private homes on Kaye Road, which has experienced recent increase in activity due to nearby non-residential uses.

### *Response:*

TSP greatly values its relationship with surrounding landowners who cherish the Park's contiguous 16-mile forest in their backyard. TSP's diverse and often challenging trail system provides outstanding recreational resources to the region and beyond. The proposed trail off Kaye Road will serve Park visitors looking for alternative access to the 20+ mile long South Taconic Trail, which was recently extended to Rudd Pond.

TSP will remain sensitive to how Park use affects nearby landowners. The envisioned parking area on Kaye Road will be small, accommodating a handful of cars, consistent with other trail-head parking areas at the Park. TSP closes at dusk, so visitor parking will not present evening disturbance to nearby home-owners. Finally, TSP does not anticipate high visitor traffic at the proposed trail-head as the proposed trail will provide access to the challenging South Taconic Trail.

### *Comment – Bike Trail Between Rudd Pond and Harlem Valley Rail Trail*

The commenter expressed support for bike trail access between Rudd Pond and the soon-to-be-completed section of the Harlem Valley Rail Trail (HVRT) from Millerton, NY to Boston Corners, NY.

### *Response*

Thank you for your comment. A connection from the Harlem Valley Rail Trail to Rudd Pond was included in the Trails Plan map, however it was inadvertently excluded from the draft Trails Plan document. This omission was remedied and the connection is identified on p.25 of the Trails Plan. This access is also identified as a priority in the interim management plan advanced by the HVRT Association, http://hvrt.org/millerton-to-under-mountain-road/.

### *Comment – Support for Trails Plan*

The commenter expressed support for the Trails Plan and all proposed trail work it outlines.

### *Response:*

Thank you for your comment.

## Facility and Recreational Development

### *Comment – Rudd Pond Facilities*

The commenter expressed support for redevelopment of TSP's Rudd Pond area, including campsites, traffic patterns, water systems and structures, as they found this to be among the Park's most important improvements.

### *Response:*

Thank you for your comment.

## Plan, General

### *Comment – Minimize Development in the Park*

The commenter expressed support for the Agency tracking the footprint of developed areas in TSP, and encouraged the Park to minimize the expansion of developed areas to protect the Park's outstanding natural communities and biodiversity.

### *Response*

Thank you for your comment.

### *Comment – ADA compliance*

The commenter expressed appreciation for the master plan's many elements that strive to satisfy ADA guidelines as those features will enable visitors with disabilities to enjoy TSP in a pleasing way.

### *Response:*

Thank you for your comment.

### *Comment – Elevate Rudd Pond Improvements in Implementation Timeline*

Commenters expressed the desire that the Agency elevate improvements at Rudd Pond from priority three level to priority one- or two level in the master plan's implementation timeline, referencing the heightened and overdue need for these improvements.

### *Response*

The Agency strives to balance facility- and infrastructure improvements with the needs of Park patrons. While patron use and visitation at Rudd Pond are low, the Agency intends to improve Rudd Pond facilities in a timely manner. To this end, the master plan adjusted the implementation timeline to reflect the Agency's commitment to improving the aging Rudd Pond facilities, in particular securing a weed harvester to provide swimming, as well as upgrading the pavilion and swimming area.

### *Comment – Consider Climate Change*

The commenter urged the Agency to integrate into its planning the threat and projected impacts of climate change on the Park's resources, and integrate forward-looking climate adaptation and mitigation into the Park's management activities.

### *Response:*

Thank you for your comment. Climate change, while not directly identified, was a consideration for the Agency during the master planning process for TSP and informed the strategies selected in the master plan for natural, recreational, and facility infrastructure protection or improvements. The final EIS identifies this consideration explicitly in several locations.

TSP's intact natural communities and their connectivity to a regional protected landscape provide habitat for a large diversity of species and thus can mitigate the pressures those species face from our changing climate. The master plan's strategies are explicitly aimed at the protection of these critical natural resources. The master plan also devoted a chapter to outlining strategies for sustainability and green infrastructure, directing the Park to implement sustainable design and construction practices, use native plants for revegetation, and reduce the Park's energy use and carbon footprint. The master plan Map highlights several of these strategies. The Park also recognizes that its trails could be affected by the increased frequency and severity of weather events due to climate change, and the alternatives selected in the Trails Plan seek to mitigate these effects by improving the trails to be sustainable long-term.

### *Comment – Vision Statement*

The commenter endorsed Taconic State Park's vision statement of stewardship and conservation as they found it entirely fitting to the Park's special nature.

### *Response:*

Thank you for your comment.

## Persons/Organizations Who Provided Comments

(Listed alphabetically by last name)

| Name | Title | Organization |
|---|---|---|
| Assemblymember Didi Barrett | Assemblymember | New York Assembly 106th District |
| Mr. James Campbell | Town Councilman | Town of Northeast |
| Mr. George Kaye | Town Supervisor | Town of Northeast |
| Mr. Ted Kerpez and Mr. Michael Clark | Wildlife Managers | NYS DEC Regions 3 and 4 |
| Mr. Larry Lampman | | |
| Ms. Brooke Lehman | | |
| Mr. Peter R. Paden | Executive Director | Columbia Land Conservancy |
| Ms. Jane Peck | | |
| Mr. Adam Peltz | | |
| Mr. Gregg Pulver | County Legislator | Dutchess County, Towns of North East, Stanford, Pine Plains, and Milan |
| Mr. John Scutieri | Former Mayor | Village of Millerton |
| Mr. Stephan Waite | Trustee; Appointee | Village of Millerton; Recreation Committee |
| Mr. Brian R. Watkins, MPA | | |
| Ms. Milbrey Zelley | Member | Friends of Taconic State Park |

# References

Barbour, 2003. Barbour, H., M.G. Anderson et al. 2003. *Lower New England – Northern Piedmont Ecoregional Conservation Plan*; *First Iteration, Edited*. The Nature Conservancy, Northeast & Caribbean Division, Boston, MA.

Chatham Courier, 1964. *Bash Bish Falls. Robert Moses, FDR Played Key Roles in Establishing Vast Tri-State Park*. Chatham NY Courier Grayscale 1964 - 0645. Sept 3, 1964. Archive accessed online March 2016. www.fultonhistory.com/my%20photo%20albums/All%20Newspapers/Chatham%20NY%20Courier/index.html.

Conrad et al, 2016. Conrad, N.B, A.K. Conley, T.G. Howard, and M.D. Schlesinger. 2016*. Identifying biodiversity priority areas in New York and its State Parks.* New York Natural Heritage Program, Albany, New York, and SUNY College of Environmental Science and Forestry, Syracuse, NY.

DEC, 2011. New York State Department of Environmental Conservation. *Updated Recommendations for 2008 Ozone NAAQS Nonattainment Areas, October 26, 2011*. Webpage accessed 2016. www.dec.ny.gov/chemical/78158.html and www.dec.ny.gov/chemical/52583.html.

DEC, 2012. New York State Department of Environmental Conservation.2012. *Firewood and Invasive Insects*. Webpage accessed 2016. www.dec.ny.gov/animals/28722.html.

DEC, 2014a. New York State Department of Environmental Conservation. 2014. *New York Statewide Air Quality Now Meets Federal Standard*. Webpage accessed 2016. http://www.dec.ny.gov/press/96759.html.

DEC, 2014b. New York State Department of Environmental Conservation. 2014. *Black Bear Management Plan for New York State 2014-2024*. PDF accessed online January 2017. www.dec.ny.gov/docs/wildlife_pdf/bearplan2014.pdf.

DEC, 2015a. New York State Department of Environmental Conservation. 2015. *Forest Resource Assessment and Strategy 2010-2015*, p.179. PDF accessed online January 2016. www.dec.ny.gov/docs/lands_forests_pdf/fras070110.pdf.

DEC, 2015b. New York State Department of Environmental Conservation. 2015. *New York State Wildlife Action Plan.* September 2015. PDF accessed online 2017. http://www.dec.ny.gov/docs/wildlife_pdf/swapfinaldraft2015.pdf

DEC, 2016a. New York State Department of Environmental Conservation. *Significant Biodiversity Area descriptions*, Harlem Valley Calcareous Wetlands, pp. 71-74. PDF accessed online January 2016. www.dec.ny.gov/docs/remediation_hudson_pdf/hrebcf2sba.pdf.

DEC, 2016b. New York State Department of Environmental Conservation. *Forest Legacy Program*. Webpage and map accessed online March 2016. www.dec.ny.gov/lands/63117.html and www.dec.ny.gov/lands/71617.html.

DEC, 2016c. New York State Department of Environmental Conservation. *Natural Heritage Areas Program*. Webpage accessed online in 2016. www.dec.ny.gov/animals/36987.html#Criteria.

DEC, 2016d. New York State Department of Environmental Conservation. *New York State Standards and Specifications for Erosion and Sediment Control (Blue Book).* Webpage accessed online March 2017. www.dec.ny.gov/chemical/29066.html.

Edinger et al, 2014. Edinger G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

EPA, 2016. US Environmental Protection Agency. *Criteria Air Pollutants, National Ambient Air Quality Standards Table*, Webpage accessed September 2016. www.epa.gov/criteria-air-pollutants/naaqs-table.

Epodunk, 2015. *Online profile of US communities*. Webpage accessed December 2015. www.epodunk.com.

Evans et al, 2001. Evans, D.J., P.G. Novak, and T.W. Weldy. 2001. *Rare Species and Ecological Communities of Taconic State Park*. New York Natural Heritage Program, Latham, N.Y.

Evans et al, 2004. Evans, D.J., P.G. Novak, and T.W. Weldy. *Supplement to Rare Species and Ecological Communities of Taconic State Park*. New York Natural Heritage Program, Latham, N.Y.

Gobrecht, 2000a. Gobrecht, Larry. *The Copake Iron Works at Taconic State Park. Historic Overview and Inventory of Associated Resources*. Peebles Island Resource Center. March 28, 2000. Accessed at Peebles Island Resource Center November 2015.

Gobrecht, 2000b. Gobrecht, Larry. *The Copake Iron Works at Taconic State Park. A Report on its Historical Significance and Development Potential*. Peebles Island Resource Center. March 15, 2000. Accessed at Peebles Island Resource Center November 2015.

Haas et al, 2007. Haas, G.E., M.D. Wells, V. Loveroy, and D. Welch. *Estimating Future Recreation Demand: A Decidsion Guide for the Practitioner*. United States Department of the Interior, Bureau of Reclamation, Office of Program and Policy Services, Denver Federal Center. Denver, Colorado. January 2007.

Lundgren, 2016. Lundgren, Julie. 2016. *NYNHP Assessment/Recommendation Form for OPRHP Natural Heritage Area (NHA) Status Consideration*. *Taconic State Park*. NY Natural Heritage Program, Albany NY.

NatureServe, 2016. *Ecoregions. Lower New England-Northern Piedmont*. Webpage accessed March 2016. www.landscope.org/explore/natural_geographies/ecoregions/Lower%20New%20England%20-%20North%20Piedmont/.

NPS, 2008. National Park Service, US Department of the Interior. *Land and Water Conservation Fund State Assistance program: Federal Financial Assistance Manual Volume 69*. PDF accessed online March 2016. www.nps.gov/ncrc/programs/lwcf/manual/lwcf.pdf.

NPS, 2014. National Park Service. *Hudson River Valley National Heritage Area designated by the US Congress*. Webpage accessed December 2015. www.nps.gov/hurv/index.htm and www.hudsonrivervalley.com/Home.aspx.

NRCS, 2016. Natural Resources Conservation Service. *Web Soil Survey*. Accessed online April 2016. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

NRCS/USDA, 2002. Natural Resources Conservation Service/ United States Department of Agriculture. *The Temperature Regime for Selected Soils in the United States*. PDF accessed May 2016. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051004.pdf.

NYNHP, 2013. Natural Heritage Program. *Results from May 4-5, 2013 bioblitz at Taconic State Park, New York*. Data compiled by NY Natural Heritage Program for New York State Office of Parks, Recreation and Historic Preservation.

OPRHP, 2009. New York State Office of Parks, Recreation, and Historic Preservation. 2009. *Policy on the Management of Trees and Other Vegetation in State Parks And Historic Sites*. PDF accessed online February 2017. www.Parks.ny.gov/inside-our-agency/documents/GuidancePolicies/OPRHPPolicyManagementOfTrees.pdf

OPRHP, 2010. New York State Office of Parks, Recreation, and Historic Preservation. *Policy on Fish and Wildlife Management in State Parks and Historic Sites*. PDF accessed online March 2017: www.parks.ny.gov/inside-our-agency/documents/PolicyOnFishAndWildlifeManagement.pdf.

OPRHP, 2014. New York State Office of Parks, Recreation, and Historic Preservation. *State Comprehensive Outdoor Recreation Plan 2014-2019*. OPRHP, Albany, NY 2014.

OPRHP, 2015. New York State Office of Parks, Recreation, and Historic Preservation. *Native Plants in State Parks and Historic Sites*. PDF accessed online March 2017. www.parks.ny.gov/inside-our-agency/documents/GuidancePolicies/NativePlants.pdf.

OPRHP, 2016. New York State Office of Parks, Recreation, and Historic Preservation. *Camping Procedures & Reference Manual (Revised August 2016) Section III. K (3)*, p.10. PDF accessed online September 2016. www.nysParks.com/inside-our-agency/documents/GuidancePolicies/CampingManualAug192016.pdf.

Penhollow et al, 2006. Penhollow, M. E., P. G. Jensen, and L.A. Zucker. 2006. *Wildlife and Habitat Conservation Framework: An Approach for Conserving Biodiversity in the Hudson River Estuary Corridor*. New York Cooperative Fish and Wildlife Research Unit, Cornell University and New York State Department of Environmental Conservation, Hudson River Estuary Program, Ithaca, NY.

Ring, 2017. Ring, Richard M. 2017. *Rocky Summit Grassland Natural Communities in New York State Parks: Vegetative Ecology, Rare Plants, and Management Recommendations*. New York Natural Heritage Program and New York State Office of Parks, Recreation and Historical Preservation, Albany NY.

Smith, 2015. ArcGIS, *Significant Ecosystems and Wildlife Update*. Last Modified December 22, 2015. Website and Web Map accessed March 2016. www.arcgis.com/home/item.html?id=94a8ccd805bf4efda88f75e93c04742e.

USDA, 1989. United States Department of Agriculture. 1989. *Soils of Columbia County*. PDF accessed online 2016. www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/new_york/NY021/0/Columbia.pdf.

USFS, 2010. United States Forest Service. *2010 Statewide Forest Resource Assessments and Strategies in the Northeast and Midwest: A Regional Summary*, p. 35. PDF accessed online March 2016. www.northeasternforests.org/app/webroot/uploads/files/Northeast-Midwest-RegSummary-StateAssessStrategy-2011-04-08.pdf.

USFS et al, 2016. United States Forest Service in partnership with federal and state agencies, nongovernmental organizations, and academic programs. *Monarch Joint Venture*. PDF accessed online July 2016. www.fs.fed.us/wildflowers/pollinators/Monarch_Butterfly/documents/Swallow-wort_flyer_MJV.pdf.

USGenNet, 2015. USGenNet, a nonprofit historical-genealogical web hosting service. *History of Nobletown New York*. By Susan Stalker Mulvey. Document accessed at Peebles Island Resource Center November 2015, then webpage accessed March 2016. www.usgennet.org/usa/ny/county/columbia/hill/histhills.htm.

# List of Tables



# List of Figures

*Figures referenced in the text of the document are listed below; they are found on the CD ROM placed in the backpocket of the hard-copy document or as separate PDFs on the agency website.*

*Large format maps of the Master Plan and Trails Plan are also found on the CD ROM or as separate PDFs on the agency website.*

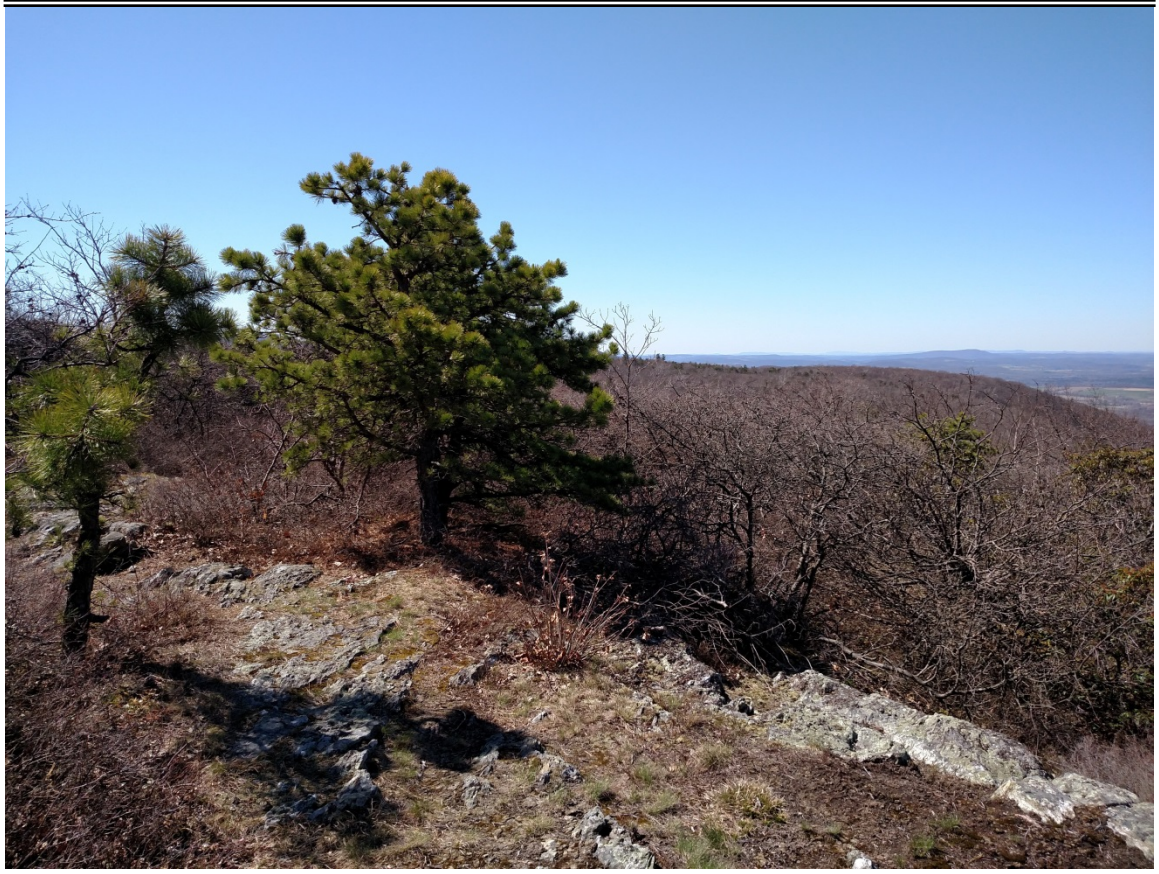
***Appendix A***

# Trails Plan

for

# Taconic State Park

February 23, 2018



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Prepared in conjunction with the
Master Plan/ Environmental Impact Statement for Taconic State Park

# Acknowledgements

The Taconic State Park Trails Plan is a result of a cooperative effort by many persons. The Office of Parks, Recreation and Historic Preservation (OPRHP) acknowledges the time and effort of each individual who participated in the development of this Trails Plan Document.

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# Trails Plan

## List of Tables



## List of Figures

*Large format map of the Trails Plan is found on the CD ROM placed in the backpocket of the hard-copy document or as a separate PDF on the agency website.*

*Figures listed below are also found on the CD ROM or as separate PDFs on the agency website.*

# I. Introduction

## A. Purpose

As part of the master planning process for Taconic State Park (TSP), it was identified that, due to the unique and extensive trail system in the Park, and the potential impact of recreational use on the Park's natural resources, a Trails Plan should be developed in conjunction with the master plan for Taconic State Park. This Trails Plan provides direction and guidance for staff in the development, management and maintenance of a high-quality trail system that will meet the needs of the users while continuing to protect the resources and integrity of the Park.

The Trails Plan was developed concurrently with and as a supporting document to the master plan. Surveys were conducted in the spring and summer of 2016 to capture information about the public's use and expectations of the Park. Public comments regarding trails and recreation in the Park were received at public information meetings held on March 16 and April 2, 2016 as well as during the public comment period during March and April 2016 as part of the master planning process.

A Trails Subcommittee, comprised of OPRHP staff, was formed to develop and make recommendations for the Trails Plan. The Trails Subcommittee met with members of the New York-New Jersey Trail Conference (NYNJTC) (the main backcountry trail maintainer organization at the Park) to gain additional input on trails in Taconic State Park. All of the comments received by OPRHP have helped to guide the development of the Trails Plan. Other factors that were taken into consideration in the development of the plan include current trail conditions, current uses, needs and trends, current and future demands, and natural resource protection.

It should be noted that while the Trails Plan for Taconic State Park makes reference to the neighboring Harlem Valley Rail Trail (HVRT), that trail is not within the scope of this Trails Plan. Guidance and management for the HVRT will continue to be directed by the 2011 Interim Management Guide produced by the New York State Office of Parks Recreation and Historic Preservation (OPRHP).

## B. The Park

Taconic State Park is a 6,183-acre park located in the Towns of Copake, Ancram, and Northeast and straddles both Columbia and Dutchess Counties in New York. The Park is located directly on the border of both Massachusetts and Connecticut and encompasses a portion of the southern Taconic Mountain Range. TSP is bordered to the west by the Harlem Valley. The Park includes two developed areas: Copake Falls to the north and Rudd Pond to the South.

Taconic State Park offers a variety of recreational opportunities including guarded swimming, boating, fishing, hunting, and trail-related activities. There are more than 25 miles of designated trails in the Park. Trail-related recreational activities include: hiking, biking, cross-country skiing, and snowshoeing. Trails in the Park range from rugged "backcountry" foot trails (natural-surface trails with a tread width of approximately 18-30 inches) to wider and more frequently used day-use paths that reach popular Park destinations.

## C. Trails in Taconic State Park

The trail network in the Park has its roots in the history of the area including the farming, iron mining, and historic tourism that took place here. Many of the trails in the Park began their life as wood roads that provided a route to bring firewood from the hillsides or transport iron ore from the ore pits. Bash Bish Falls has been a popular scenic attraction since its discovery by settlers; and tourists and vacationers have been visiting it since. During the 1930's, the Civilian Conservation Corps was stationed in the Park and their efforts greatly expanded the trail system.

Today, the trails in the Park are enjoyed by day use visitors, campers, and hikers for sightseeing and intermediate to advanced hiking. Patrons can walk a hardened trail from the Park to see Bash Bish Falls just over the border in Massachusetts, or follow a trail south to the historic Copake Iron Works. Campground users may travel the Gray Birch Trail, climb the Sunset Rock Trail, or explore the Park on the Ore Pit Pond Trail from just beyond their campsite. The recently extended South Taconic Trail (STT)

now stretches over 20 miles along the full length of the Park north to south. This rugged trail is popular with hikers looking for a challenging trek with rewarding views of the valley below. The Harlem Valley Rail Trail, which parallels much of the Park, is a very popular multi-use trail enjoyed by many cyclists, walkers, and runners much of the year. Trails may also be used for cross-country skiing and snowshoeing in the winter months.

The Copake Iron Works is home to the Copake Iron Works Heritage Trail, a three-mile interpretive trail featuring over 25 points of interest describing the history and operations of the historic site. The Copake Iron Works is managed through a partnership with the Friends of Taconic State Park. The Friends of Taconic State Park (www.friendsoftsp.org) support the preservation of the historic Copake Iron Works and promotes the Park's recreational, historic, educational and cultural resources as well as advocate and raise funds for the Park's facilities and programs.

Trails in the Park are also used for environmental interpretation including guided hikes. With the help of the Friends of Taconic State Park, guided nature hikes on various themes are held throughout the year. Boy Scouts and other youth groups also utilize the trails for hiking and outdoor education.

# II. Existing Trail System

The existing trail system in Taconic State Park consists of more than twenty-five miles of designated trails. Designated trails are defined as trails that are named, marked or blazed and maintained for specific uses. When trails are designated, they have allowed uses assigned to them and are marked with a color blaze to identify the trail corridor. Allowed trail uses in the Park include hiking, biking, snowshoeing, and cross-country skiing. Some undesignated trails exist in the Park for other purposes, such as maintenance or emergency access, but are not used for recreation. A list of designated trails and their allowed uses is listed in Table 1 below.

**Figures 13A & 13B** The Existing Trail System depicts the locations of designated trails, recreation areas, and parking areas in the Park. The existing trail system provides access to many of TSP's scenic, natural, and historic resources.

Trails in the Park can be accessed by a number of points from north to south in New York, Massachusetts, and Connecticut. A number of Park patrons visit the Park to walk the popular Bash Bish Falls Trail and access it from the Parking area located on NY 344 in Copake Falls. Additional trail access is located off Sunset Rock Road to the north, as well as Under Mountain Road, Quarry Hill Road, and Shagroy Road to the south. Trails can also be reached from the day use and camping areas at both Copake Falls and Rudd Pond.

Taconic State Park trails may also be accessed outside of New York from East Road in Mount Washington, Massachusetts, and Mount Washington Road in Salisbury, Connecticut. The northernmost trailhead for the South Taconic Trail is located at an informal parking area located off Hillsdale Road/NY Rt. 23 between Hillsdale, New York and Egremont, Massachusetts.

Primarily Park staff maintain the trails in TSP in conjunction with trail user groups and volunteers, especially the NYNJTC volunteer trail maintainers, who maintain the South Taconic Trail. Their work, and the work of the Park staff, helps provide a positive trail experience for the public. Maintainers keep the trail corridor clear of obstacles, perform general upkeep, and help identify areas of concern or improvement.

## A. Inventory

Table 1 is an inventory list of all designated trails in the Park. The table includes the names of the trails, trail marker colors, currently allowed uses, and trail length.

**Table 1: Taconic State Park Trails Inventory**

| Trail Name | Blaze | Allowed Uses | Mileage |
|---|---|---|---|
| South Taconic (ST)* | White | H, SS | 13.4 |
| Sunset Rock (SR) | Red | H, SS, B, XC | 1.9 |

| | | | |
|---|---|---|---|
| Gray Birch (GB) | Yellow | H, SS, B, XC | 1.6 |
| Wood Thrush (WT) | Blue | H, SS, B, XC | 1.9 |
| Ore Pit Pond (OP) | Orange | H, SS, XC | 0.5 |
| Cedar Brook (CB) | Blue | H, SS | 1.1 |
| Iron Works Heritage Trail (IW) | Green | H, SS | 0.4 |
| Bash Bish Falls (BB) | Blue | H, SS | 0.6 |
| CCC Loop (CC) | Yellow | H, SS, XC | 0.8 |
| Alander Brook (AL) | Blue | H, SS | 1.4 |
| Robert Brook (RB) | Red | H, SS | 1.1 |
| Brace Mountain (BM) | Blue | H, SS | 0.6 |
| Mt. Frissell (MF) | Red | H, SS | 0.3 |
| Quarry Hill (QH) | Yellow | H, SS | 0.7 |
| Rudd Pond (RP) | Red | H, SS, XC | 2.1 |
| Iron Mine (IM) | Green | H, SS, XC | 0.3 |
| Weed Mines (WM) | Green | H, SS, XC | 0.2 |

* Total mileage for the STT is 20.9 miles; 13.4 of which are located in TSP
Type of Use: H (Hiking), B (Biking), SS (Snowshoeing), XC (Cross-country skiing)

A newly completed section of the South Taconic Trail was constructed and opened to the public in 2015. This new trail extends the STT an additional 6.5 miles from the Quarry Hill Trail, south of Brace Mountain, to the Rudd Pond area and trailhead on Shagroy Road, just north of Millerton, NY. The total mileage for the trail is now 20.9 miles, with 13.4 occurring in the park, and 7.5 outside the park's boundaries in Massachusetts.

Current trail projects submitted for review in TSP include the rehabilitation and closure of portions of the Cedar Brook Trail by volunteers from the NYNJTC. The proposal calls for a steep, inappropriate potion of trail to be closed and a new section of sustainable trail be constructed. The project will also focus on the rehabilitation of eroded portions of hillside; tread improvements along the stream bank, and improving multiple stream crossings on Cedar Brook.

## B. Assessments

In order to gauge the needs and conditions of trails in Taconic State Park, OPRHP staff conducted trail assessments in the spring and summer of 2016. The trail assessments were performed using a Trimble GeoXT Global Positioning System (GPS) unit to accurately collect assessment information along the trail corridor. Trails were assessed for general condition, areas of erosion or drainage issues, ease of travel, adequacy of signage and other issues in the trail tread and corridor. Due to time and staffing restrictions, some trails in the Park did not receive a formal assessment. In these cases, trail conditions were communicated to the Trail Plan team through staff knowledge. The Park also recognizes that its trails could be affected by the increased frequency and severity of weather events due to climate change, and the alternatives selected in the Trails Plan seek to mitigate these effects by improving the trails to be sustainable long-term.

**Figures 14A and 14B –** Trail Assessments depict the results of the trail assessments and represent the conditions found along the trails at that point in time. These trail assessments, as well as input from the Trails Plan subcommittee, helped to inform the content of Chapter III – Trail System Alternatives. The documented conditions were also used to develop the implementation and maintenance recommendations provided in Chapter IV. G. Implementation.

## C. Recreational Needs Assessment

Chapter 1 of the EIS discusses the Recreational Needs Assessment performed for TSP. Part of the assessment includes the Relative Index of Needs (RIN), which indicates the level of need for various

recreation opportunities over the next 20 years. This is based on the available supply of these activities and the demand for them in the Park's service area. The RIN is expressed on a numerical scale, with 10 being the highest relative level of need and 1 the least. A value of 5 represents the statewide average level of need for a particular activity. Under the RIN, activities with a value of 5 or greater are expected to require additional facilities to be constructed to meet future public demand. The service area for TSP has a RIN of 5 or greater for the following trail based recreation activities: biking, snowmobiling, walking/jogging, and cross-country skiing.

A variety of State managed lands exist within 25 miles of TSP that provide trail-based recreation opportunities. NYS DEC managed Wildlife Management Areas such as Taconic-Hereford, Wassaic, and Tivoli Bays, as well as Beebe Hill & Harvey Mountain State Forests, all offer multiple use trails. Lake Taghkanic, Mills-Norrie, and James Baird State Parks are other locations with trails available for multiple uses. Local land preservation groups, such as the Columbia Land Conservancy, also manage lands that offer trail activities.

Outside of New York, Mount Washington State Forest, Bash Bish Falls State Park, Jug End and East Mountain State Reservations in Massachusetts, as well as Macedonia Brook, Housatonic Meadows, and Kent Falls State Parks, and Housatonic State Forest in Connecticut offer opportunities for trail-based recreation.

## D. Public Input

Many comments received during the public information meetings related to the trail system at Taconic State Park. The majority of the comments was complimentary and expressed satisfaction with the Park's trails. Other comments received focused on topics such as the need for increased maintenance, addition or exclusion of certain trail activities, improvements to signage and wayfinding, addressing parking and accessibility for trails, and anticipating the effects of severe weather events due to climate change. These comments and interest from the public support the need for a Trails Plan at Taconic State Park, and were considered during the development of the plan.

# III. Trail System Alternatives

The trail system alternatives were developed by the TSP Trails Plan subcommittee using background information, trail assessment data, public input, staff and volunteer knowledge. The alternatives seek to address recreation needs and future trail development in the Park, as well as provide for trail improvements and reduce impacts to natural resources. The following factors were considered in the alternative development and analysis process:

- Types of trail experiences
- Needs and desires of trail users
- Protection of significant natural communities and rare species
- Compatibility with cultural resources
- Accessibility to persons of all abilities
- Support facilities
- Connections within the Park
- Linkages to external trail systems
- Parking
- Sustainability
- Opportunities for environmental education and interpretation
- Park operations and management

Each alternative below contains a background describing the current conditions, as well as considerations for each alternative. A preferred alternative(s) for each resource was selected and the collection of those preferred alternatives make up the Trails Plan contained in Chapter IV.

# *A) South Taconic Trail*

***Background***

The South Taconic Trail is a 21-mile-long foot trail along the Taconic Range; 13 miles of which are located within TSP. The trail follows a rugged route along the ridge and summits of the range, traveling back and forth between TSP in New York and Mount Washington State Forest in Massachusetts. The trail features a number of scenic viewpoints of the valley below and is popular with hikers. In 2015, a 6.5 mile section of new trail was constructed beginning at the Quarry Hill Road Trail, extending the trail to the southern end of the Park at Shagroy Road. Conditions assessments found a majority of the trail to be in good to fair condition. Problem areas generally exist where the trail follows steep slopes, traverses areas with a thin layer of soil on top of bedrock or lies along flat areas with poor drainage.

Because of its length, the alternatives for the STT have been broken out into four distinct trail segments that make up the total length from north to south. The segments are:

1. Rt. 23/Catamount Ski Area to Sunset Rock Road
2. Sunset Rock Road. to Rt. 344 & Bash Bish Falls parking area
3. Bash Bish Falls parking area to Quarry Hill Trail
4. Quarry Hill Trail to Shagroy Road parking area

## *1. Rt. 23/Catamount Ski Area to Sunset Rock Road*

***Background***

The northern trailhead for the STT is located in an unofficial parking area in the right-of-way of Hillsdale Road/Rt. 23 near the Catamount Ski Area in Massachusetts. The trail follows white blazes on utility poles along two public roads, Nicolson Road and Fisher Lane, for approximately one-half mile. After a short time on the roadway, the trail heads onto private property and begins to climb the north side of Mt. Fray. From here, the trail crosses onto the Catamount Ski Area. Farther up on the hillside, the trail enters New York and Taconic State Park. Near the top of the ridge, the trail heads into the woods south for approximately two miles, crossing briefly into Massachusetts, until it meets with Sunset Rock Road. The section of trail that falls within the Park's boundaries was noted in good to fair condition. Portions of the trail are routed on steep slopes and some fall-line sections show evidence of erosion and running water. This is the least frequently used section of the trail, and in many locations, it needs refreshed blazes and maintenance to remove downed trees from the trail corridor.

***Alternatives Considered***

***(i) Status Quo – No changes to STT***

**Considerations**

- Trailhead location stays as-is
- Trail routing continues to follow road right-of-way and private properties
- Trail remains in fair condition
- Erosion and other trail impacts continue

***(ii) Alternative 2 – Relocate STT trailhead and parking onto Catamount Ski Area property***

**Considerations**

- Provides for better established trailhead and safer parking and location

- Improves user experience
- Catamount Ski Area management is amenable to this improvement

***(iii) Alternative 3 – Relocate STT onto Catamount Ski Area property***

**Considerations**

- Will secure a more permanent trail route with a single landowner
- Will connect trail users to new trailhead parking
- Catamount Ski Area management is amenable to this improvement

***(iv) Alternative 4 – Reroute sections of STT***

**Considerations**

- Mitigates ongoing erosion issues
- Will improve user experience
- Does not require significant re-routing of trail
- Will require some ground disturbance

***Preferred Alternative***

Alternatives (ii), (iii), and (iv) are preferred due to their positive impacts for trail users and natural resources. Partnering with the Catamount Ski Area to relocate parking provides trail users with a safer parking location as well as a better established trailhead; relocating the northern section of trail onto the Catamount Ski Area property will help secure a long-term trail route and avoid potential issues with the current trail alignment; and rerouting sections of the STT that are suffering effects of erosion will improve the user experience and provide for a more sustainable trail in the long term. Management at Catamount Ski Area has shown an interest in working with OPRHP to provide parking as well as a new trail alignment on their property.

## *2. Sunset Rock Road. to Rt. 344 & Bash Bish Falls parking area*

***Background***

This section of the STT shows evidence of more frequent use than sections to the north or south. This is likely due to the availability of parking on Sunset Rock Road and short trail connection to the popular Sunset Rock lookout area, as well as additional trail connections to the Copake Falls campground and day use area. A large portion of this trail is co-aligned with the Sunset Rock Trail (SR). South of the lookout, the trail meets the Gray Birch Trail (GB), which joins the STT and SR trail for approximately one-quarter mile. The STT continues south to meet with Rt. 344 near the Bash Bish Falls parking area. A majority of the trail corridor from Sunset Rock Road south is located on a historic wood road that begins just over the border in Massachusetts, heading downhill toward the Copake Falls area. A portion of the wood road trail creates a duplicate trail corridor near Sunset Rock Road. Assessments of the trail condition for this section varied from good to very poor. Some areas south of Sunset Rock have experienced significant erosion due to seasonal or storm runoff resulting in unsatisfactory conditions for trail users.

***Alternatives Considered***

***(i) Status Quo – No changes to STT***

**Considerations**

- Trail condition stays as-is
- User experience is not improved
- Trail will remain inappropriate

- Erosion will continue to degrade trail

***(ii) Alternative 2 – Close duplicate trail on wood road near MA border***

**Considerations**

- Duplicate trail may cause confusion for trail users
- Trail is already restricted due to low use and lack of maintenance
- Closing trail will allow corridor to revegetate

***(iii) Alternative 3 – Construct water control features on STT***

**Considerations**

- Install features such as knicks or drainage dips, or increasing the tread outslope
- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or rerouting
- Increases durability of trail by mitigating existing water issues

***(iv) Alternative 4 – Reroute STT between Sunset Rock and Cedar Brook Trail***

**Considerations**

- Current trail alignment experiences significant erosion
- Exposed roots and rocks create inappropriate trail conditions
- Fall-line trail does not lend itself to sustainable long-term route
- Will require some ground disturbance

***Preferred Alternative***

Alternatives (ii), (iii), and (iv) are preferred due to their positive impacts for trail users, safety, and for natural resources. Closing the duplicate section of the STT near Sunset Rock Road will eliminate confusion and improve user experience, and will allow for the trail corridor to revegetate over time. In areas where erosion has not yet caused significant trail damage, constructing water control devices will reduce the prolonged effects of running water on the trail tread. In areas of significant erosion identified between Sunset Rock and the Cedar Brook Trail, rerouting the trail onto a more sustainable grade is the sustainable solution.

## *3. Bash Bish Falls parking area to Quarry Hill Trail*

***Background***

South of Rt. 344, the STT follows a Park road toward the Bash Bish Cabins. From here, the STT climbs steeply toward the ridge south of Bash Bish Falls before heading east and leaving New York. A portion of the STT trail on the New York side is located on private property, and permitted through an easement. Once in Massachusetts, the trail heads south for a little over 2 miles cresting Alander Mountain before re-entering New York and TSP. The STT then intersects with both the Alander Brook Trail (AB) and the Robert Brook Trail (RB) before heading back into Massachusetts for another 1.8 miles. The last portion of this segment returns to New York and TSP, climbing and descending Brace Mountain, and culminating at the Quarry Hill Trail. Conditions assessments for these trail segments ranged from good to poor. A combination of weather and use have eroded many sections of trail; steep slopes with poor footing and thin soils over bedrock have exacerbated these issues.

***Alternatives Considered***

***(i) Status Quo – No changes to STT***

**Considerations**

- Trail condition stays as-is
- User experience stays acceptable or may decline
- Erosion will continue to degrade trail in some areas
- No ground disturbance will occur

***(ii) Alternative 2 – Construct water control features on STT***

**Considerations**

- Install water control features such as knicks or drainage dips, or increase tread outslope
- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or rerouting
- Increases durability of trail by mitigating existing water issues

***(iii) Alternative 3 – Reroute sections of STT showing significant erosion***

**Considerations**

- Improves user experience
- Addresses inappropriate trail conditions
- Creates more sustainable trail alignment
- Prioritizes trail rehabilitation on sections most heavily damaged

***Preferred Alternative***

A combination of alternatives (ii) and (iii) is preferred due to the positive impacts for trail users, safety, and natural resources. In many areas, the STT is in good condition and does not require rehabilitation or improvements. In areas without significant issues, creating water control devices will reduce the prolonged effects of running or standing water on the trail tread. Relocating steep sections of the STT near Bash Bish Falls, Alander Mountain, and the Quarry Hill Trail onto more appropriate grades will improve patron safety and trail sustainability.

## *4. Quarry Hill Trail to Shagroy Road parking area*

***Background***

The final segment of the STT stretches from Quarry Hill Trail (QH) past the intersection of the Rudd Pond trail (RP) south to the trailhead and parking lot at Shagroy Road. Volunteers from the NYNJTC constructed this section of the trail between QH and RP using sustainable trail building techniques in 2015. This new trail section closed the gap to the STT to the north, and now provides a premier long-distance hiking opportunity in the Park. From RP to Shagroy Road the trail uses a historic wood road corridor and is co-aligned with the Rudd Pond Trail. Trail assessments conducted for portions of this trail ranged from very good to fair; most of the problem spots are due to wet or muddy sections located on the older section of the trail.

***Alternatives Considered***

***(i) Status Quo – No changes to STT***

**Considerations**

- Trail condition stays as-is
- User experience remains acceptable

- Poor trail conditions will remain in limited areas
- No ground disturbance will occur

***(ii) Alternative 2 – Construct stepping stone improvements through wet areas***

**Considerations**

- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or rerouting
- Does not require additional materials or significant long-term maintenance
- Improves user experience

***(iii) Alternative 3 – Construct bog bridges in wet areas***

**Considerations**

- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or re-routing
- Requires additional materials and some long-term maintenance

***(iv) Alternative 4 – Reroute STT off steep wood road***

**Considerations**

- Does not maintain existing trail alignment or corridor
- Requires some ground disturbance
- May mitigate future erosion issues

***Preferred Alternative***

Alternative (ii) is preferred due to the positive impacts for trail users and natural resources. Wet and muddy sections with seasonal standing water south of the Rudd Pond intersection can be improved with stepping stones to elevate the trail tread. The use of stepping stones is preferred to the construction of bog bridges due to the location's available materials and reduced long term maintenance.

## *B) Sunset Rock Trail*

***Background***

The Sunset Rock Trail (SR) is located in the northern section of TSP. The trail travels from the camping area at Copake Falls east and north until it reaches the scenic lookout at Sunset Rock. Much of the trail is co-aligned with the South Taconic Trail as well as a portion co-aligned with the Gray Birch Trail (GB). The section of the trail leading from the campground, as well as a majority of the trail heading north is located on a historic wood road. Condition assessments for this trail ranged greatly from good to very poor. As was noted with the STT segment located here, some areas have significant erosion due to seasonal or storm runoff creating poor conditions for trail users.

***Alternatives Considered***

***(i) Status Quo – No changes to SR***

**Considerations**

- Trail condition stays as-is
- User experience is not improved

- Trail will remain inappropriate
- Erosion will continue to degrade trail

***(ii) Alternative 2 – Construct water control features on SR***

**Considerations**

- Construct features such as knicks or drainage dips, or increase the tread outslope
- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or re-routing
- Increases durability of trail by mitigating existing water issues

***(iii) Alternative 3 – Reroute SR between Sunset Rock overlook and Cedar Brook Trail***

**Considerations**

- Current trail alignment experiences significant erosion due to seasonal runoff and storms
- Exposed roots and rocks create inappropriate trail conditions
- Fall-line trail does not lend itself to sustainable long-term route
- Will require some ground disturbance

***Preferred Alternative***

Alternatives (ii) and (iii) are the preferred alternatives due to their positive impacts for trail users, safety, and for natural resources. Portions of SR located closer to the campground remain in fair condition and any existing erosion has not yet caused significant trail damage. Constructing water control devices will reduce the prolonged effects of running water on the trail tread. As was noted in the preferred alternatives for the STT, areas of significant erosion identified between Sunset Rock overlook and the Cedar Brook Trail should be rerouted off the fall-line and onto a more sustainable grade.

## *C) Gray Birch Trail*

***Background***

The Gray Birch Trail (GB) is located in the northern section of TSP. The trail leads users east out of the Copake Falls campground to meet the SR and STT trail. The BG, SR, and STT trails are co-aligned for approximately one-quarter mile heading up the ridge. As the STT and SR trails turn east, the GB trail breaks from them to head downhill staying north and eventually reaching Sunset Rock Road. Like other trails in the Park, the GB trail corridor was adopted from an old wood road. Conditions for this trail at the time of assessment ranged from good to fair. Trail assessments on the GB trail found instances of soggy or muddy trail, and standing water on the trail tread. This is likely due to the location of the trail and the soils present there, the overall character of the trail tread, and occasional traffic from maintenance vehicles.

***Alternatives Considered***

***(i) Status Quo – No changes to GB***

**Considerations**

- Trail remains in fair condition
- User experience remains acceptable
- Areas of wet trail, mud, and standing water will remain
- Will require no ground disturbance

***(ii) Alternative 2 – Construct water control features on GB***

**Considerations**

- Construct features such as knicks or drainage dips, or increase the tread outslope
- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or re-routing
- May increase durability of trail tread

***(iii) Alternative 3 – Reroute sections of GB that suffer from water issues***

**Considerations**

- Will improve user experience
- Will require some ground disturbance
- May require a large section of the trail to be relocated

***Preferred Alternative***

Alternative (ii) is the preferred alternative due to its positive impacts for trail users and ability to prevent additional impacts to natural resources. While the Gray Birch Trail is currently in fair condition, additional improvements to manage water in the trail tread will provide an improved experience for trail users.

## *D) Wood Thrush Trail*

***Background***

The Wood Thrush Trail (WT) follows a wood road corridor between the Copake Falls campground to the south and Sunset Rock Road to the north. The trail parallels GB to the east. Despite some steep slopes, trail assessments found the trail to be in good condition.

***Alternatives Considered***

***(i) Status Quo – No changes to trail***

**Considerations**

- Trail remains in good condition
- User experience remains positive
- Will require no ground disturbance

***(ii) Alternative 2 – Construct connector trail between WT and GB***

**Considerations**

- Creates loop opportunity for trail users
- Eliminates use of Sunset Rock Road to connect trails
- Will improve user experience

***Preferred Alternative***

Alternative (ii) is the preferred alternative. Hikers and other trails users often enjoy traveling routes that incorporate loops that begin and end in the same area. Connecting the Wood Thrush and Gray Birch trails will create a loop opportunity for trail users, and will improve the trail experience by eliminating the need to walk on Sunset Rock Road.

## *E) Cedar Brook Trail*

***Background***

The Cedar Brook Trail (CB) is a rugged foot trail along the Cedar Brook at the foot of Cedar Mountain in TSP. The trail begins at Rt. 344 across from the Bash Bish Falls parking area and heads north to meet the STT and SR. The trail crosses the Cedar Brook at five unimproved stream crossings. Conditions for this trail at the time of assessment ranged from good to poor. Trail assessments on the GB found multiple instances of erosion as well as instances of steep slopes. The most significant issue is a one tenth mile section of trail that leads straight uphill climbing from the stream below to reach the SR and STT higher on the hillside. This section of trail is extremely steep and inappropriate for users.

In conjunction with TSP and regional staff, volunteers from the NYNJTC's East Hudson Trails Crew submitted a work proposal for CB that would address many of the issues present. The work plan seeks to reconstruct sections of the existing trail corridor, improve all of the five stream crossings, and reroute the very steep section of the trail near the STT intersection. The alternatives below reflect the proposals in this work plan.

***Alternatives Considered***

***(i) Status Quo – No changes to CB***

**Considerations**

- Trail remains in fair to poor condition
- User experience remains poor
- Trail conditions remain inappropriate
- Will not involve ground disturbance

***(ii) Alternative 2 – Make improvements to CB***

**Considerations**

- Install stepping stones to improve stream crossings
- Build crib wall and restore heavily eroded section of trail
- Re-route steep and inappropriate section of trail
- Will reduce trail users waking in stream channel
- Will mitigate ongoing erosion due to poor footing on steep slopes
- Will improve experience for users
- Will involve ground disturbance

***Preferred Alternative***

Alternative (ii) is the preferred alternatives because it will greatly improve the user experience as well as the safety and durability of the trail. The installations of stepping stones, as well as tread and crib wall improvements will reduce impacts to natural resources that occur from trail users walking in the streambed when using the trail.

## *F) Iron Works Heritage Trail*

***Background***

The Iron Works Heritage Trail (IW) is approximately three miles in length and features interpretive signage at points of interest that describe the history and operations of the Copake Iron Works. The trail connects signage along the HVRT, at the furnace and historic buildings of the Iron Works site, and more. The trail also connects users to the Bash Bish Falls trailhead. Visitors navigate the trail using a map, linking together the numbered interpretive signage locations. At this time, a formal trail corridor exists only

from the Iron Works site to the Bash Bish Falls parking area. Assessments of that corridor found the trail to be in fair condition.

***Alternatives Considered***

***(i) Status Quo – No changes to IW***

**Considerations**

- Trail remains in fair condition
- User experience remains acceptable
- Will not involve ground disturbance
- Will not encourage more use

***(ii) Alternative 2 – Improve IW in cooperation with the Friends of Taconic State Park***

**Considerations**

- Will improve trail experience for users
- Provides enhanced connection between Park's historic and natural features
- Compliments proposed improvements to the Copake Iron Works discussed in Alternative F of the EIS for TSP
- May involve additional interpretive signage, mapping, and/or trail construction

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the Iron Works Heritage Trail. As discussed in Chapter Two, Alternative F of the EIS for TSP, there is a desire among Park staff and the Friends of Taconic State Park to improve the Copake Iron Works Historic District, including the Iron Works Heritage Trail. Specific trail improvements have not been identified at this time, but may include additional wayfinding and signage, formalizing a trail corridor to interpretive exhibits, improvements to the existing trail, and more.

## *G) Bash Bish Falls Trail*

***Background***

The Bash Bish Falls Trail (BB) is by far the most popular and heavily used trail in TSP. The trail leads visitors from the parking area on Rt. 344 along the Bash Bish Creek to the viewing area at Bash Bish Falls, just over the border in Massachusetts. Most of the trail is approximately 10 ft. wide, is partially hardened with crushed stone and stone dust, and contains moderate grades. Because of these attributes, possible improvements to the BB included constructing the trail to meet outdoor recreation accessibility standards for persons with disabilities.

Trail assessments of the corridor found it to be in fair condition. Some erosion and drainage issues were observed due to the roadway and steep slopes located uphill from the trail and the volume of water runoff they contribute. Because of the trail's popularity, and the inviting stream within line-of-sight from the trail, many social trails have developed from BB to the creek below. Some of these social trails have areas of significant erosion and present inappropriate and undesirable conditions.

***Alternatives Considered***

***(i) Status Quo – No changes to BB***

**Considerations**

- Trail remains in fair condition
- User experience remains acceptable
- Surfacing material will be replaced as needed

- Will not involve ground disturbance

***(ii) Alternative 2 – Evaluate BB for accessibility improvements***

**Considerations**

- Seeks to provide trail experience for users of all abilities
- Current trail is not within the Federal guidelines for slope, grade, and tread obstacles
- Will help determine level of construction needed to create accessible destination
- Requires coordination to evaluate the portion of the trail in Massachusetts
- Does not involve ground disturbance

***(iii) Alternative 3 – Construct water control features on trail***

**Considerations**

- Construct features such as knicks or drainage dips, or increase the tread outslope
- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or re-routing
- Will increase durability of trail tread

***(iv) Alternative 4 – Close, revegetate, and sign social trails***

**Considerations**

- May reduce erosion impacts to steep hillside
- May reduce sedimentation of stream
- Signage will discourage off-trail travel
- Will involve limited ground disturbance
- May not prevent users from leaving the trail

***Preferred Alternative***

Alternatives (ii), (iii), and (iv) are the preferred alternatives for the Bash Bish Falls trail. There is a strong desire among regional staff to construct BB to meet accessibility standards; however, the current character of the trail is outside of the Federal guidelines for outdoor accessibility routes. Alternative (ii) recommends that the BB trail receive a full assessment to determine the scope of construction and improvements needed to meet Federal accessibility guidelines. In addition, Alternatives (iii) and (iv) were selected to improve user experience on the trail, prevent ongoing erosion, protect the natural resources along the stream bank, and reduce off-trail activity.

## *H) Alander Brook Trail*

***Background***

The Alander Brook Trail (AB) is located off Under Mountain Road approximately halfway between the Copake Falls and Rudd Pond developed areas of the Park. The trail has three distinct sections. The first follows an old wood road corridor north crossing the Alander Brook. After crossing the brook, the second portion heads east uphill as a foot trail. The third begins where the trail meets with another wood road corridor and heads up a very steep slope, finally meeting with the South Taconic Trail. Trail assessments found most sections of the trail to be in fair to good condition, despite the very steep slopes in some sections. Of the three, only the middle portion was in poor condition with areas of significant erosion.

***Alternatives Considered***

***(i) Status Quo – No changes to AB***

**Considerations**

- Trail sections remain in current condition
- User experience remains acceptable
- Sections of trail continue to erode
- Will not involve ground disturbance

***(ii) Alternative 2 – Reroute portions of AB exhibiting significant erosion***

**Considerations**

- Will improve trail experience for users
- May eliminate ongoing impacts to natural resources
- Will involve ground disturbance

***(iii) Alternative 3 – Construct water control features on AB***

**Considerations**

- Construct features such as knicks or drainage dips, or increase the tread outslope
- Maintains existing trail alignment
- Requires little ground disturbance
- Does not require major rehabilitation or re-routing
- Will increase durability of existing trail

***Preferred Alternative***

Alternatives (ii) and (iii) are the preferred alternatives for the Alander Brook Trail due to their positive impacts on user experience and natural resources. Rerouting the connecting section of the Alander Brook Trail will provide users with a safer and more pleasant hiking experience when compared to the current eroded and steep trail alignment. Additionally, installing water control measures on existing sections of the trail that are still in good condition will help counteract the future effects of erosion.

## *I) CCC Loop*

***Background***

The CCC Loop (CC) consists of a former wood road corridor located off the Alander Brook Trail. While it is identified as a separate trail from AB, it is likely that it was the original route of AB before the shortcut connector was created. Due to time constraints, the CCC Loop was not assessed during the development of the Trails Plan. Park staff have communicated their desire to close the trail because it sees illegal use in the form of ATVs and very little use from hikers. A portion of the upper CC Loop will be used to reroute the AB trail connector as proposed in Alternative I (ii) above.

***Alternatives Considered***

***(i) Status Quo – No changes to CCC Loop***

**Considerations**

- Trail remains in fair condition
- User experience remains acceptable
- Limited use continues

- Will not involve ground disturbance

***(ii) Alternative 2 – Close CCC Loop***

**Considerations**

- Will reduce existing trail mileage
- May reduce illegal use by ATVs
- Trail receives little use by hikers
- Will not involve ground disturbance

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the CCC Loop. Improvements to the Alander Brook Trail should further reduce the use of the CCC Loop and make it unnecessary to maintain as a trail corridor. Closing the trail should also help to counteract illegal use by ATVs.

## *J) Robert Brook Trail*

***Background***

Like the Alander Brook Trail, The Robert Brook Trail (RB) consists of a wood road corridor adopted by the Park as a hiking trail. The majority of the trail consists of a steep climb that heads east from AB, approximately 1000ft. up onto the Taconic Range, eventually meeting with the STT. The RB is a popular route for hikers looking to ascend Alander Mountain from the New York side. Combined with the AB, the RB provides hikers with a loop opportunity to ascend and descend the Taconic Range near Alander Mountain. Trail assessments found RB to be in good to fair condition, despite many sections of prolonged steep grades. Some significant erosion was present at the top of the Taconic Range, near the intersection with the Massachusetts border and STT.

***Alternatives Considered***

***(i) Status Quo – No changes to RB***

**Considerations**

- Trail remains in fair condition
- User experience remains acceptable
- Areas of erosion could increase
- Will not involve ground disturbance

***(ii) Alternative 2 – Make trail improvements to RB***

**Considerations**

- Construct features such as knicks or drainage dips, or increase the tread outslope
- Will increase durability of existing trail
- Maintains existing trail alignment
- Does not require major rehabilitation or re-routing
- Reroute sections of RB that suffer from erosion
- Will improve user experience
- Will mitigate ongoing erosion issues and damage to natural resources
- Will require some ground disturbance

***(iii) Alternative 3 –Close RB***

**Considerations**

- Will remove use from very steep trail
- Will eliminate hiking option for users in this section of the Park
- Hikers may continue to use the well-established trail corridor
- Would not involve ground disturbance

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the Robert Brook Trail. Water control features installed on steep sections will reduce future damage to the trail and help to maintain a positive user experience. At points higher on the trail, necessary reroutes will relocate the trail off eroded and gullied areas, and will improve the user experience.

## *K) Quarry Hill Trail*

***Background***

The Quarry Hill Trail (QH) and trailhead is located on Quarry Hill Road to the east of Rt. 63/Boston Corners Road. The trail is currently the only designated route to access the STT and Brace Mountain between RB to the north and Rudd Pond Trail to the south. The trail is a steep and rugged ascent that leads hikers up to the Taconic Range. The trail travels beside a seasonal stream with a waterfall (likely the reason the trail was created in this location), and traverses multiple rock outcroppings before meeting with the STT. Assessments of the trail found much of it to be in very poor condition with many unsatosfactory areas and significant erosion.

***Alternatives Considered***

***(i) Status Quo – No changes to QH***

**Considerations**

- Trail remains in very poor condition
- User experience remains unsatisfactory
- Areas of erosion will continue to increase
- Trail will remain inappropriate

***(ii) Alternative 2 – Make improvements to QH***

**Considerations**

- Re-route inappropriate sections of trail
- Will require some ground disturbance
- Re-construct eroded sections of trail using crib walls or stone stairs
- Will increase durability of existing trail sections
- Will improve user experience
- Will maintain hiking opportunity in this section of TSP

***(iii) Alternative 3 – Close QH***

**Considerations**

- Eliminates an inappropriate trail in the Park
- May mitigate ongoing erosion issues
- Will eliminate a recreation opportunity for users

- Hikers may continue to use the trail corridor after closure, due to the draw of the stream and waterfall

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the Quarry Hill Trail due to its positive impacts for users, the existing trail, and the surrounding natural resources. Closure of the trail would remove a hiking opportunity from this section of Taconic State Park and would not benefit trail users. It is recommended that multiple locations of the current alignment receive tread hardening and reconstruction in the form of stone stairs, crib walls, etc. Additionally, some areas of the trail will require re-routing to provide a safer trail corridor for hikers.

## *L) Rudd Pond Trail*

***Background***

The Rudd Pond Trail (RP) is a loop trail that circles the east side of the Rudd Pond area of TSP. The newly extended STT is co-aligned with a portion of the RP trail as it descends the Taconic Range and eventually meets with Iron Mine Pond. Much of the trail is located on an old wood road corridor. Despite some steep sections, assessments found most of the trail to be in good to fair condition. Portions of the trail on steep areas exhibit signs of minor water issues, and sections south of Rudd Pond located in low areas showed signs of erosion or water in the trail tread.

***Alternatives Considered***

***(i) Status Quo – No changes to RP***

**Considerations**

- Trail remains in good to fair condition
- User experience remains acceptable
- Areas of erosion may increase

***(ii) Alternative 2 – Construct a new trail segment linking RP to the parking area.***

**Considerations**

- Existing trailhead is difficult to locate
- There is no parking at current trailhead
- New trail will improve links to hiking trails in Rudd Pond area
- Will require some ground disturbance
- Will close a section of exiting trail

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the Rudd Pond Trail. The proposed trail will connect through an older pine plantation near a utility corridor to parking at Rudd Pond. This trailhead location will also be more visible to Park patrons seeking recreational opportunities at Rudd Pond.

## *M) Nature Trail near Rudd Pond*

***Background***

The Rudd Pond area of Taconic State Park is popular for camping and for some day use visitors. Proposed improvements to the area identified in the master plan will likely attract additional day use. The creation of a nature or interpretive trail near the day-use and camping areas could be a popular amenity for these visitors.

***Alternatives Considered***

***(i) Status Quo – No nature trail at Rudd Pond***

**Considerations**

- Trail opportunities at Rudd Pond remain limited
- No ground disturbance will occur

***(ii) Alternative 2 – Construct a nature trail near Rudd Pond***

**Considerations**

- Provides additional recreational opportunities for visitors
- Compliments proposed improvements to the Rudd Pond area of the Park
- May involve interpretive signage about the Pond and its natural setting
- Can follow partially along Rudd Pond's shoreline
- Will require some ground disturbance

***Preferred Alternative***

Alternative (ii) is the preferred alternative. The addition of a nature trail at Rudd Pond would allow visitors to explore the Pond and its vicinity on a trail that is family friendly and less strenuous compared to other trails nearby. This nature trail could be developed as a passive recreational path or could incorporate interpretive signage and information that reflects the Pond's natural setting.

## *N) Iron Mine Trail*

***Background***

The Iron Mine Trail (IM) is located near the Iron Mine Pond and connects to the wood road running north from Shagroy Road at the south end of TSP. Before the extension of the STT, this trail connected users from Shagroy Road to the RP. The trail was not included in the trail assessments. However, Park staff found the trail to be in fair condition.

***Alternatives Considered***

***(i) Status Quo – No changes to trail***

**Considerations**

- Trail remains in fair condition
- User experience remains acceptable
- Trail will continue to link to undesignated trail

***(ii) Alternative 2 – Close IM***

**Considerations**

- Will eliminate unnecessary trail route
- Will direct users to stay on designated trail corridors
- Will allow trail corridor to revegetate

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the Iron Mine Trail. Because the trail does not lead to the parking area at Shagroy Road nor does it connect to a designated trail, it no longer serves a purpose. Closure of the trail will help direct Park users onto the designated trails in the area and avoid continued use of the unofficial trail/wood road.

## *O) Weed Mine Trail*

***Background***

The Weed Mine Trail (WM) is a short trail that leads from the parking area off Weed Mine Road to Weed Mine Pond. The pond is a popular fishing destination, stocked seasonally with trout. The trail tread is mostly unimproved and consists of a mowed path through an area of tight brush and secondary growth trees. The trail stops on a knoll above the pond edge and requires a scramble down the hillside to reach the pond. The trail was in fair condition at the time of assessment.

***Alternatives Considered***

***(i) Status Quo – No changes to WM***

**Considerations**

- Trail remains in fair condition
- User experience remains acceptable
- Erosion will increase as persons try to access pond
- Will not involve ground disturbance

***(ii) Alternative 2 – Extend WM to pond and provide area for fishing***

**Considerations**

- Will require some ground disturbance
- Will eliminate users going off trail to access the pond
- Will improve user experience

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the Weed Mine Trail Extending the trail to the pond's edge will improve access for fishing as well as reduce the impacts and erosion caused by users making their own path down the hill.

## *P) Develop Trail from Kaye Road Parcel*

***Background***

Only two trails in the southern section of TSP provide users access to the STT and Taconic Range: Rudd Pond Trail and Quarry Hill Trail. When hiking the STT, the distance between the two is approximately 5 miles. The Trails Plan subcommittee identified the addition of a new, sustainably built trail as an alternative to provide additional user access to the newly constructed section of the STT.

The Kaye Rd. parcel is an undeveloped, 25-acre property located north of the Rudd Pond area near the intersection of Boston Corners Road and Rudd Pond Road. The parcel is currently managed with an agricultural lease, but otherwise unused. It was determined that this location has the potential for a new trailhead and trail leading to the STT. A parking area for the parcel is proposed as an alternative in the master plan.

***Alternatives Considered***

***(i) Status Quo – Trail will not be created***

**Considerations**

- Users will continue to have limited access to STT
- Will not involve ground disturbance

***(ii) Alternative 2 – Construct trail from Kaye Road parcel***

**Considerations**

- Provides a safe, sustainable trail route to access the STT in this section of the Park
- Creates additional hiking opportunities
- Will improve user experience
- Will require some ground disturbance

***Preferred Alternative***

Alternative (ii) is the preferred alternative for the Kaye Road trail. The one-mile trail will provide a safer alternative to the Quarry Hill Trail for users wanting to ascend to or descend from the Taconic Range. The new trail may also help reduce the current volume of use and impacts on the Quarry Hill Trail and allow for necessary improvements.

## *Q) Develop multi-use trail connections from HVRT to TSP Features in Copake Falls*

***Background***

Users, particularly cyclists, on the Harlem Valley Rail Trail (HVRT) may be interested in exploring features of TSP such as the Copake Iron Works or Bash Bish Falls. Currently, they must travel along Rt. 344 for a distance before reaching those destinations. Developing a new bicycle and pedestrian connection to those Park features would benefit both trail users and Park patrons.

***Alternatives Considered***

***(i) Status Quo – Do not create Trail connections from HVRT to TSP features in Copake Falls***

**Considerations**

- User experience will remain positive
- Trail users will not have a new connection to Park features
- Will not involve ground disturbance

***(ii) Alternative 2 – Explore trail connections from HVRT to TSP features in Copake Falls***

**Considerations**

- Will provide new connection to Park features such as the Copake Iron Works or Bash Bish Falls trailhead
- Will provide safer options to connect to Park features
- Will require some ground disturbance
- On-road road shoulder improvements, a separated lane, or a new multi-use trail connection from HVRT are potential ideas

***Preferred Alternative***

Alternative (ii) is the preferred alternative due to its positive impacts for trail users. A new trail user connection will provide a variety of recreation choices for visitors to the Copake Falls area. Options could include an improved shoulder along Rt. 344, a separated lane for cyclists and pedestrians, improvements to Valley View Road, or a new multi-use spur trail off of the HVRT leading to the Iron Works site. Surface improvements to the Iron Works trail (Section F above) would encourage users to continue to the Bash Bish Falls trailhead.

## *R) Explore an improved connection from HVRT to Rudd Pond*

***Background***

As the section of the Harlem Valley Rail Trail between Millerton and Under Mountain Road is actively being developed, TSP is exploring an improved connection from this trail section to the Park. Currently trail users can access Rudd Pond from Millerton or Under Mountain Road via local roads. The improved connection will provide rail trail users with an enhanced and safer access to Rudd Pond's amenities: picnicking, guarded swimming, hiking, comfort stations, as well as overnight camping. The exact route and type of the improved connection is to be determined at a later time, but could include designated bike lanes, on-road shoulder improvements, or a new multi-use trail connection.

***Alternatives Considered***

***(i) Status Quo – Do not improve connections from HVRT to Rudd Pond***

**Considerations**

- Users will continue to access Rudd Pond and HVRT as-is
- Users will not have a formalized connection between Rudd Pond and HVRT
- Users will not have improved access to camping or day use activities at Rudd Pond
- Will not involve ground disturbance

***(ii) Alternative 2 – Explore improved connections from HVRT to Rudd Pond***

**Considerations**

- Will provide a more formalized connection between nearby Rudd Pond amenities and the rail-trail
- Will improve safety for users coming to and from the rail trail
- Consider on-road road shoulder improvements, a separated lane, or a new multi-use trail connection from HVRT. Exact route and type of improv ed connection to be determined at a later time.
- Will require some ground disturbance

***Preferred Alternative***

Alternative (ii) is the preferred alternative due to its positive impacts for trail users and Park visitors. A new trail connection will provide a variety of recreational choices for patrons as well as opportunities for overnight camping for bike riders. Options could include an improved shoulder along Rudd Pond Road, a separate lane for cyclists and pedestrians, or developing a new multi-use spur trail off of the HVRT.

## *S) Improve Signage and Wayfinding*

***Background***

Many trailheads, intersections and parking areas in TSP lack sufficient signage and mapping for trail users to take full advantage of the Park's trails. There is some signage at intersections or trailheads for wayfinding and all trails in TSP are, at a minimum, blazed according to their designation. Trail signage, wayfinding, and mapping were identified as desired improvements during in the public comments.

***Alternatives Considered***

***(i) Status Quo – Signage and wayfinding remain limited***

**Considerations**

- Signage is not improved
- Will not improve user experience
- Will not involve ground disturbance

***(ii) Alternative 2 – Improve trail signage and wayfinding***

**Considerations**

- User experience and safety will be improved
- Provides better understand trail routes and connections
- Will involve little ground disturbance
- Blazes, intersection signage, and trailhead maps will be evaluated and improved

***Preferred Alternative***

Alternative (ii) is the preferred alternative based on the improvements to safety and user experience. Proper trail signage is a key component of a positive recreation experience and allows trail users to make

informed decisions while exploring the trails in TSP. On-trail blazes will be refreshed or installed as needed. At intersections, trail signage will be installed or updated to provide improved wayfinding. At trailheads, maps and kiosks will be installed or updated to help users navigate trails in the Park.

## *T) Ore Pit Pond, Brace Mountain, and Mount Frissell trails*

***Background***

Some trails in TSP are in satisfactory condition and currently meet the needs of the Park and trail users. In the Copake Falls section of the Park, the Ore Pit Pond Trail (OP) routes users from the day use and camping areas of the Park to the Ore Pit guarded swimming area. Farther south, the Brace Mountain Trail (BM) and Mount Frissell Trail (MF) connect hikers from the north side of Brace Mountain to trails outside the Park in Massachusetts and Connecticut.

***Alternatives Considered***

***(i) Status Quo – Do not improve OP, BM, or MF***

**Considerations**

- Trails will remain in fair condition
- Trails will continue to provide necessary connections
- Will not involve ground disturbance

***Preferred Alternative***

No alternative to the status quo was considered for the Ore Pit Pond, Brace Mountain, and Mount Frissell Trails as the trails are in good condition and meet the needs of users.

# IV. Trails Plan

## A. Trail System

### 1. Trails

The Trails Plan for Taconic State Park recommends a trail system comprised of approximately 27.3 miles of trails for Park recreation; 23.3 miles of existing trail and approximately 4 miles of new or rerouted trail. The Trails Plan also calls for the closure of approximately 2.3 miles of designated trails.

Trails in TSP will provide a variety of recreation experiences for hikers, bikers, cross-country skiers, and snowshoers (see Figure 7). The trail system will continue to include singletrack foot trails, as well as wider multi-use trails, and some wood road trails. Table 2 below provides an inventory of trails for the Trails Plan by trail name, uses, and mileage.

**Table 2: Inventory of trails for the Trails Plan**

| Trail Name | Blaze | Allowed Uses | Mileage |
|---|---|---|---|

| | | | |
|---|---|---|---|
| South Taconic Trail (ST) | White | H, SS | 13.5 |
| Sunset Rock (SR) | Red | H, SS, B, XC | 2.2 |
| Gray Birch (GB) | Yellow | H, SS, B, XC | 1.6 |
| Wood Thrush (WT) | Blue | H, SS, B, XC | 1.9 |
| Gray Birch Connector (GC) | Purple | H, SS, B, XC | 0.6 |
| Ore Pit Pond (OP) | Orange | H, SS, XC | 0.5 |
| Cedar Brook (CB) | Blue | H, SS | 1.3 |
| Iron Works Heritage Trail (IW) | Green | H, SS | 0.4 |
| Bash Bish Falls (BB) | Blue | H, SS | 0.6 |
| Alander Brook (AL) | Blue | H, SS | 1.6 |
| Robert Brook (RB) | Red | H, SS | 1.1 |
| Brace Mountain (BM) | Blue | H, SS | 0.6 |
| Mt. Frissell (MF) | Red | H, SS | 0.3 |
| Quarry Hill (QH) | Yellow | H, SS | 0.6 |
| Kaye Road* (KR) | Orange | H, SS | 1.0 |
| Rudd Pond (RP) | Red | H, SS | 2.8 |
| Weed Mines (WM) | Green | H, SS, XC | 0.3 |

Allowed Uses: H (Hiking), B (Biking), SS (Snowshoeing), XC (Cross-country skiing)
*Kaye Road trail is proposed. Final trail name, blaze color, and mileage are not yet determined.

### 2. Trail Connections

**External systems**

Taconic State Park is situated in a geographic area that offers many opportunities for trail connections beyond its borders. In addition to the alternatives identified for trails inside TSP, this plan also recognizes three regional trail corridors that would provide for additional long-distance trail connections.

i. ***Appalachian Trail***: At many points along the STT, the Appalachian Trail (AT) is located less than 3 miles away. Developing additional connections to the AT would allow trail users to explore trails outside of TSP. Additionally, it will allow for section or day hikers on the AT and other regional trails to create loop opportunities utilizing trails in Taconic State Park.

ii. ***Harlem Valley Rail Trail***: A gap exists between the currently completed section of the HVRT at Under Mountain Road and the remainder of completed trail to the south in Millerton. Efforts are currently underway by Dutchess County and the HVRT Association to close this gap. Establishing a connection to the Rudd Pond section of TSP provides users of the HVRT an additional destination for day-use as well as overnight camping opportunities. As this section of the HVRT is realized, developing this connection will be a priority.

iii. ***Taconic Crest Trail***: The Taconic Crest Trail (TCT) is another long-distance trail located approximately 30 miles north of TSP that traverses New York, MA and VT along the Taconic Range. Regional staff, trail advocates, and the Trails Plan subcommittee for TSP have identified connecting these two trails as a long-term goal to increase recreation opportunities in the region.

## B. Support Facilities

### 1. Wayfinding and Signage

Proper signage and wayfinding are critical to a positive trail experience and come in many forms. At trailheads in TSP, kiosks with trail maps should be constructed or maintained to provide trail users with directions and information for a particular route they may choose to travel. Printed trail maps should also be available for visitors at the Park office as well as at key trailheads.

On the trail, colored blazes corresponding to the designated trail color should be installed and maintained as needed to help users navigate the corridor. Signage should also be installed or updated to inform users of trail names at critical points, such as intersections, or for interpretation of important features along the trail. Additional information for trails in the Park can be included in brochures, websites, guidebooks, and more.

The design and implementation of all trailhead and on-trail signage and markers will be directed by the *Trail Signage Guidelines for the New York State Park System (*www.nysparks.state.ny.us/recreation/trails/technical-assistance.aspx*)*. This document includes information on naming and assessing trails, etiquette and safety, materials and techniques, trail symbols, types of signage, kiosks, sign maintenance, and other resources.

### 2. Parking and Other Support Facilities

Table 4 identifies the existing and proposed parking facilities that provide access to the Park's trail system. The location of these facilities throughout the Park encourages the distribution of trail users at locations near their intended destination. For more details on trailhead parking improvements, see Chapter 2 of the EIS.

**Table 3: Parking Facilities**

| Parking Area | Capacity |
|---|---|
| Sunset Rock Road | 4 |
| Copake Falls Day Use | 95 |
| Bash Bish Falls | 40 |
| Under Mountain Road* | 10 |
| Quarry Hill Road | 4 |
| Kay Road* | TBD |
| Rudd Pond | 100 |
| Shagroy Road | 4 |

*Proposed lot, capacity to be determined

### 3. Backcountry Camping

The addition of backcountry camping to TSP is discussed in the Analysis and Alternatives chapter of the EIS for TSP. With the recent expansion of the South Taconic Trail to Rudd Pond, hikers now have the opportunity to complete a long-distance hike in TSP that would require an overnight stay.

The EIS and master plan for TSP calls for the designation of backcountry campsites near the STT to allow for overnight travel by trail users. Permits for overnight camping and for associated parking will be issued by the Park office. The final number and location(s) of trailside camping will be determined by Park and Regional staff.

## C. Interpretation and Education

Taconic State Park includes a wide variety of cultural, historical, and natural resources. Current interpretative programming associated with the trails in TSP includes guided hikes as well as passive interpretive information and formal programming at the Copake Iron Works. Recommendations for additional interpretation and education in TSP are discussed in the EIS, Chapter 2, Section K.

## D. Coordination

Operation and management of the trail system involves a wide variety of activities:

- Oversee basic maintenance of trails, support facilities, and amenities
- Ensure enforcement of rules and regulations along trails
- Establish and oversee regular trail patrols to monitor trail use and conditions and to educate and assist users
- Provide trail information to the public

- Assist with search and rescue operations
- Ensure that trail design, construction and maintenance is compatible with natural resources
- Maintain contact with all staff involved with trail operations
- Ensure remediation of trails or sections of trail that are considered unsustainable
- Provide outreach to additional organizations to assist with operation and maintenance of the trail system
- Develop a process to evaluate and modify the trail system

The Park manager will continue to coordinate trail maintenance and management efforts with Park staff, as well as volunteer groups such as the NYNJTC and the Friends of Taconic State Park for added support. Volunteer groups should meet with Park staff to develop a coordinated approach to maintaining and improving the trail system.

It is required that volunteers sign a Volunteer Service Agreement (VSA). Additionally, groups performing ongoing maintenance may consider entering into a Memorandum of Agreement (MOA) with OPRHP for trail development or maintenance purposes. Existing agreements that continue to meet the Park's needs should be maintained and new partnerships may be developed with trail organizations and other like-minded user groups.

Additional coordination for trails will include working with staff from Massachusetts Department of Conservation and Recreation (DCR) and the Mount Washington State Forest. Many of the trails in TSP extend into DCR property, including the South Taconic Trail and Bash Bish Falls Trail. Maintenance and management of these and other trails will require ongoing cooperation and communication between staff of the two agencies.

## E. Park Rules and Enforcement

Visitors to the Park are expected to follow general Park rules. These rules are as follows:

- The Park opens at sunrise and closes at sunset.
- Carry out and take home everything you bring with you. Maintaining a quality trail experience requires keeping the trails free of litter and the environment undisturbed.
- Collection of plants and animals is prohibited.
- Remain on trails for your own safety and to minimize impacts on the natural surroundings.
- Trails are designed to be used by many different outdoor enthusiasts. For the safety of all users, please exercise safety and caution when approaching other users.
- Dogs must be kept on a leash at all times. The leash can be no longer than 6 feet long.
- Park in Designated Areas Only.

These rules will be posted on trailhead kiosk panels to promote appropriate use of Park facilities. Problems or concerns regarding the trail system should be reported to the Park office. Emergencies, such as injuries, hazardous situations or criminal activity should be reported directly to Park police. Park police are responsible for the enforcement of Park rules and regulations.

## F. Special Events – Permits

A permit is required for any organized event or outing within the Park, including those that use Park trails. This helps limit trail use to a level that is environmentally sustainable and ensures that event participants are aware of their responsibilities. For additional information or to obtain a permit application, please call the Park office at (518) 329-3993.

## G. Implementation

Implementation of this plan will be guided by staff and volunteer knowledge of trails, the trail assessment information collected during the planning process, and the following agency guidance documents that relate to trails:

- The Trail Standards and Guidelines for NYS Parks
- Trail Signage Guidelines for the NY State Park System
- OPRHP Guidelines for Closing Trails

The three guidance documents listed above provide additional details on the implementation, management, and maintenance of trails in NY state parks including the following topics:

- Trail development standards
- Maintenance techniques
- Signage & wayfinding
- Accessible trails
- Trail closures
- Monitoring

These documents are located in the Trails section of the agency's website at: www.parks.ny.gov/recreation/trails/technical-assistance.aspx.

The projects listed in Table 4 have been identified as Phase I priority projects for the TSP Trails Plan implementation. The prioritization process considered safety, highest use areas, and ecological concerns. Prioritization of all remaining trail projects will be based on the availability of resources and funding.

**Table 4: Phase I Priorities**

| Action | Selected Trail(s) |
|---|---|
| Install or refresh blazing | All Trails |
| Remove obstacle trees | All Trails |
| Reroutes and improvements | Cedar Brook Trail |
| Closure | Iron Mine Trail |
| Improve signage and wayfinding | All Trails |
| Reroute and improvements | South Taconic/Sunset Rock Trail |
| Relocate parking and trail on Catamount Ski Area property | South Taconic Trail |
| Re-route and rehabilitate | Quarry Hill Trail |

For all trails, standard maintenance of the existing corridor will continue as a priority. General trail maintenance practices include the following:

- Removal of blowdown and other hazards or obstacles from corridor
- Maintenance of trail blazes and signage
- Water management to combat or prevent erosion
- Maintenance of trail surfacing
- Trimming of vegetation to maintain trail clearances
- Upkeep and maintenance of bridges or other structures
- Maintaining drainage structures

- Removal of invasive species

Trail projects, including new trails and rerouted sections of existing trails, will be designed to the development standards described in the Trail Standards and Guidelines for NYS Parks document. Planning for trail development will take into consideration the protection of the Park's sensitive ecological, natural, and historic resources. No longer used trail sections or trails identified for closure should be eliminated using appropriate trail closure techniques as described in the *OPRHP Guidelines for Closing Trails*.

Prior to construction, new trails and reroutes will require field review from agency staff including, at a minimum, the Park Manager and the Regional Natural Resource Steward to ensure consistency with trail standards and protection of sensitive resources. Park and Regional staff will then work to complete the necessary environmental review needed for the project.

Trail signage in the form of trailhead kiosks, maps, trail intersection signs and the like, should be

developed to improve wayfinding and navigation throughout the Park's trail system. In sensitive areas or areas of high use, special emphasis should be made to encourage visitors to remain on trails. Additional recommendations regarding signage and marking of trails can be found in *Trail Signage Guidelines for the NYS Park System*.

In addition to Phase I projects, Table 5 provides a summary of all existing and new trails and the specific actions that have been identified in the Trails Plan for each.

**Table 5: Implementation Steps for Trails at Taconic State Park**

| Trail Name | Blaze | Uses | Mileage* | Implementation Steps |
|---|---|---|---|---|
| South Taconic Trail (STT) | White | H, SS | 13.5 | • Relocate parking to Catamount Ski Area property<br>• Determine new alignment on Catamount Ski Area property & construct trail<br>• Close portion of trail<br>• Install stepping stones<br>• Construct water control devices<br>• Reroute sections with ongoing erosion |
| Sunset Rock (SR) | Red | H, SS, B, XC | 2.1 | • Reroute section with ongoing erosion<br>• Construct water control devices |
| Gray Birch Trail (GB) | Yellow | H, SS, B, XC | 1.6 | • Construct water control devices |
| Wood Thrush Trail (WT) | Blue | H, SS, B, XC | 1.9 | • Standard maintenance |
| Wood Thrush /Gray Birch connector | Yellow/ blue | H, SS, B, XC | 0.6 | • Determine new trail alignment connecting WT and GB, and construct trail |
| Ore Pit Pond Trail (OP) | Orange | H, SS, XC | 0.5 | • Standard maintenance |
| Cedar Brook Trail (CB) | Blue | H, SS | 1.3 | • Reroute steep section of trail<br>• Install crib wall and rehab trail tread<br>• Improve stream crossings with stepping stones |
| Iron Works Heritage Trail (IW) | Green | H, SS | 3.0 | • Develop trail improvements in conjunction with Friends of TSP |
| Bash Bish Falls Trail (BB) | Blue | H, SS | 0.6 | • Resurface as needed<br>• Close social trails leading to stream<br>• Accessibility assessment |
| Alander Brook Trail (AL) | Blue | H, SS | 1.6 | • Reroute middle portion of trail<br>• Construct water control features |

| | | | | |
|---|---|---|---|---|
| Robert Brook Trail (RB) | Red | H, SS | 1.1 | • Reroute upper portion of trail<br>• Construct water control features |
| Brace Mountain Trail (BM) | Blue | H, SS | 0.6 | • Standard maintenance |
| Mt. Frissell Trail(MF) | Red | H, SS | 0.3 | • Standard maintenance |
| Quarry Hill Trail (QH) | Yellow | H, SS | 0.6 | • Reroute upper portion of trail<br>• Rehabilitate and stabilize steep sections of trail |
| Rudd Pond Trail (RP) | Red | H, SS | 2.3 | • Determine new alignment to day-use/parking area and construct trail<br>• Close portion of old trail |
| Weed Mines Trail (WM) | Green | H, SS, XC | 0.3 | • Determine new trail alignment to pond edge and construct trail |
| Kaye Road Trail (KR) | Orange | H, SS | 1.0* | • Explore potential parking area<br>• Determine trail alignment to STT and construct trail |
| HVRT trail connection | N/A | H, B, SS, XC | TBD | • Explore potential connection opportunities<br>• Determine final alignment and construct trail |

Types of Use: H (Hiking), B (Biking), SS (Snowshoeing), XC (Cross-country skiing),
*Mileage calculations include portions of conceptual trail alignments.
Final mileage calculations may differ when trails are developed.

Priority should be given to projects that involve the basic maintenance and rehabilitation of existing trails, as well as trail reroutes and closures to correct unsustainable conditions and/or to protect sensitive environmental areas. Prioritization for the creation of new trails should be based on the availability of resources and funding.

Groups or individuals who wish to undertake trail projects in TSP must submit a Conceptual Work Plan and Temporary Revocable Permit (TRP) to the Park Manager for approval of all trail work beyond standard maintenance practices. The Park Manager will work with the Regional Natural Resource Steward, and may consult with the Statewide Trails Planner and other staff in the development of any such trail projects. A copy of the TRP document and instructions is available on the OPRHP website at: www.parks.ny.gov/recreation/trails/technical-assistance.aspx

## H. Monitoring and Future Development

The following guidelines will be utilized in the implementation of a trail monitoring system and the approval process for future modification of this plan.

### 1. Monitoring Program

A monitoring program should be developed by Park and regional staff to monitor trail conditions and identify potential issues. A monitoring program will include an annual inspection of all trails and periodic inspections of trails throughout the year. Volunteers may aid in this process in many cases. The monitoring program should include:

- Assessment of trail corridor for obstacles, hazards, or unsafe conditions
- Monitoring trail tread for water and erosion issues to ensure sustainability
- Identification of areas in need of visitor management
- Identification and reporting locations of invasive species
- Monitoring areas where trail use may impact significant natural communities

In addition to invasive flora on trails, special consideration should be given to monitoring for invasive insects such as Emerald Ash Borer (EAB) and Hemlock Wooly Adelgid (HWA). Damage caused by these pests may lead to additional hazard trees on or near trial corridors. For additional information, see Chapter 2, Item I of the master plan for TSP which discusses the development of a comprehensive invasive management plan for TSP.

### 2. Future Trails Development

Proposals for modification of the TSP trail system beyond what is specified in this plan will be evaluated by the Park Manager in consultation with the Regional Natural Resources Steward, the Statewide Trails Planner, and other staff. The scope and associated impacts of the proposed project on natural and cultural resources will determine the extent of the review under the State Environmental Quality Review Act (SEQR).

## I. Environmental Review

This Trails Plan, as an appendix to the Taconic State Park Environmental Impact Statement and master plan, is the subject of an environmental review process under the State Environmental Quality Review Act (SEQR). Chapter 7 of the master plan addresses environmental impacts. For the purposes of SEQR compliance, the master plan and Environmental Impact Statement satisfy the requirements for an environmental impact statement as specified in Part 617, the rules and regulations implementing SEQR.

# Bibliography

*Friends of Taconic State Park*. n.d. Webpage. www.friendsoftsp.org.

*Harlem Valley Rail Trail*. October 2016. Webpage. <http://hvrt.org/>.

Mulvey, Susan Stalker. *History of Nobletown New York*. 2004. Electronic File.

NYS Department of Environmental Conservation. *Environmental Resource Mapper*. n.d. Webpage. 2016. <http://www.dec.ny.gov/gis/erm/>.

NYS Office of Parks, Recreation and Historic Preservation. "Final Trails Plan for Grafton Lakes State Park." 2012. Electronic Document.

NYS Office of Parks, Recreation and Historic Preservation.. "Taconic State Park - Park Program Analysis." 1981. Digital File.

Roeliff Jansen Historical Society. "Brief History, Masters audio." 1983. Digital File.

Todd, Hiram C. "Bash Bish Falls." *The Courier* 15 September 1988. Digital File.

# *Appendix B: Select Fauna, Flora, and Fungi of the Taconic State Park Region*

| Documented Fauna* | | | | | |
|---|---|---|---|---|---|
| | **Scientific Name** | **Common Name** | **NYS Listing** | **Federal Listing** | **SGCN** |
| **Mammals** | | | | | |
| Bats | *Myotis leibii* | Small-footed Bat | SC | | Y |
| | *Lasiurus borealis* | Eastern Red Bat | | | Y |
| | *Lasiurus cinereus* | Hoary Bat | | | Y |
| | *Myotis lucifugus* | Little Brown Bat | | | Y |
| | *Perimyotis subflavus* | Tri-colored Bat | | | Y |
| | | | | | |
| Rabbits and Hares | *Sylvilagus floridanus* | Eastern Cottontail | | | |
| | *Sylvilagus transitionalis* | New England Cottontail | SC | | Y |
| | | | | | |
| Rodents | *Castor canadensis* | Beaver | | | |
| | *Marmota monax* | Woodchuck | | | |
| | *Ondatra zibethicus* | Muskrat | | | |
| | *Sciurus carolinensis* | Eastern Gray Squirrel | | | |
| | *Tamias striatus* | Eastern Chipmunk | | | |
| | *Tamiasciurus hudsonicus* | Red Squirrel | | | |
| | | | | | |
| Carnivores | *Canis latrans* | Coyote | | | |
| | *Lontra canadensis* | North American River Otter | | | |
| | *Lynx rufus* | Bobcat | | | |
| | *Martes pennanti* | Fisher | | | |
| | *Neovison vison* | Mink | | | |
| | *Urocyon cinereoargenteus* | Gray Fox | | | |
| | *Ursus americanus* | Black Bear | | | |
| | *Vulpes vulpes* | Red Fox | | | |
| | | | | | |
| Even-toed Ungulates | *Alces americanus* | Moose | | | Y |
| | *Odocoileus virginianus* | White-tailed Deer | | | |
| | | | | | |
| **Birds*** | | | | | |
| Loons and Grebes | *Gavia imer* | Common Loon | SC | | Y |
| | *Podilymbus podiceps* | Pied-billed Grebe | T | | Y |
| | | | | | |
| Cormorants | *Phalacrocorax auritus* | Double-crested Cormorant | | | |
| | | | | | |
| Wading Birds | *Botaurus lentiginosus* | American Bittern | SC | | Y |
| | *Ardea herodias* | Great Blue Heron | | | |
| | *Ardea alba* | Great Egret | | | Y |
| | *Butorides virescens* | Green Heron | | | |
| | | | | | |
| Swans and Geese | *Cygus olor* | Mute Swan | Exotic | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| | *Chen caerulescens* | Snow Goose | | | |
| | *Branta canadensis* | Canada Goose | | | |
| | | | | | |
| Dabbling Ducks | Anas rubripes | American Black Duck | | | Y |
| | *Aix sponsa* | Wood Duck | | | |
| | *Anas platyrhynchos* | Mallard | | | |
| | *Anas dicors* | Blue-winged Teal | | | Y |
| | *Anas crecca* | Green-winged Teal | | | |
| | | | | | |
| Diving Ducks | *Aytha affinis* | Lesser Scaup | | | Y |
| | *Aytha collaris* | Ring-necked Duck | | | |
| | *Bucephala clangula* | Common Goldeneye | SGCN | | Y |
| | *Bucephala albeola* | Bufflehead | | | |
| | *Lophodytes cucullatus* | Hooded Merganser | | | |
| | *Mergus merganser* | Common Merganser | | | |
| | | | | | |
| Dinural Raptors | *Coragyps atratus* | Black Vulture | | | |
| | *Cathartes aura* | Turkey Vulture | | | |
| | *Accipiter gentilis* | Northern Goshawk | SC | | Y |
| | *Accipiter striatus* | Sharp-shinned Hawk | SC | | |
| | *Accipiter cooperii* | Cooper's Hawk | SC | | |
| | *Circus cyaneus* | Northern Harrier | T | | Y |
| | *Buteo lineatus* | Red-shouldered Hawk | SC | | Y |
| | *Buteo platypterus* | Broad-winged Hawk | | | |
| | *Buteo jamaicensis* | Red-tailed Hawk | | | |
| | *Aquila chrystaetos* | Golden Eagle | E | | Y |
| | *Haliaeetus leucocephalus* | Bald Eagle | T | | Y |
| | *Falco sparverius* | American Kestrel | | | Y |
| | *Falco columbarius* | Merlin | | | |
| | | | | | |
| Upland Game Birds | *Meleagris gallopavo* | Wild Turkey | | | |
| | *Bonasa umbellus* | Ruffed Grouse | | | Y |
| | | | | | |
| Gruiformes | *Rallus limicola* | Virginia Rail | | | |
| | *Porzana carolina* | Sora | | | |
| | | | | | |
| Shorebirds | *Charadrius vociferus* | Killdeer | | | |
| | *Gallinago delicata* | Wilson's Snipe | | | |
| | *Scolopax minor* | American Woodcock | | | Y |
| | | | | | |
| Skuas, Jaegers, Gulls | *Larus delawarensis* | Ring-billed Gull | | | |
| | *Larus argentatus* | Herring Gull | | | |
| | | | | | |
| Pigeons and Doves | *Columba livia* | Rock Dove | | | |
| | *Zenaida macroura* | Mourning Dove | | | |
| | | | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| Cuckoos | *Coccyzus erythropthalmus* | Black-billed Cuckoo | | | Y |
| | *Coccyzus americanus* | Yellow-billed Cuckoo | | | |
| | | | | | |
| Owls | *Otus asio* | Eastern Screech-Owl | | | |
| | *Bubo virginianus* | Great Horned Owl | | | |
| | *Strix varia* | Barred Owl | | | |
| | *Aegolius acadicus* | Northern Saw-whet Owl | | | |
| | | | | | |
| Goatsuckers | *Chordeiles minor* | Common Nighthawk | SC | | Y |
| | *Caprimulgus vociferus* | Whip-poor-will | SC | | Y |
| | | | | | |
| Swifts | *Chaetura pelagica* | Chimney Swift | | | |
| | | | | | |
| Hummingbirds | *Archilochus colubris* | Ruby-throated Hummingbird | | | |
| | | | | | |
| Kingfishers | *Ceryle alcyon* | Belted Kingfisher | | | |
| | | | | | |
| Woodpeckers | *Sphyrapicus varius* | Yellow-bellied Sapsucker | | | |
| | *Melanerpes carolinus* | Red-Bellied Woodpecker | | | |
| | *Picoides pubescens* | Downy Woodpecker | | | |
| | *Picoides villosus* | Hairy Woodpecker | | | |
| | *Colaptes auratus* | Northern Flicker | | | |
| | *Dryocopus pileatus* | Pileated Woodpecker | | | |
| | | | | | |
| Tyrant Flycatchers | *Contopus virens* | Eastern Wood-Pewee | | | |
| | *Empidonax traillii* | Willow Flycatcher | | | |
| | *Empidonax alnorum* | Alder Flycatcher | | | |
| | *Empidonax minimus* | Least Flycatcher | | | |
| | *Empidonax virescens* | Acadian Flycatcher | | | |
| | *Sayornis pheobe* | Eastern Phoebe | | | |
| | *Myiarchus crinitus* | Great Crested Flycatcher | | | |
| | *Tyrannus tyrannus* | Eastern Kingbird | | | |
| | | | | | |
| Vireos | *Vireo gilvus* | Warbling Vireo | | | |
| | *Vireo olivaceus* | Red-eyed Vireo | | | |
| | *Vireo flavifrons* | Yellow-throated Vireo | | | |
| | *Vireo solitarius* | Blue-headed Vireo | | | |
| | | | | | |
| Jays and Crows | *Cyanocitta cristata* | Blue Jay | | | |
| | *Corvus brachyrhynchos* | American Crow | | | |
| | *Corvus ossifragus* | Fish Crow | | | |
| | *Corvus corax* | Common Raven | | | |
| | | | | | |
| Larks | *Eremophila alpestris* | Horned Lark | SC | | Y |
| | | | | | |
| Swallows | *Hirundo rustica* | Barn Swallow | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| | *Petrochelidon pyrrhonota* | Cliff Swallow | | | |
| | *Stelgidopteryx serripennis* | Northern Rough-winged Swallow | | | |
| | *Riparia riparia* | Bank Swallow | | | |
| | *Tachycineta bicolor* | Tree Swallow | | | |
| | | | | | |
| Chickadees, Nuthatches, and Their Allies | *Poecile atricapilla* | Black-capped Chickadee | | | |
| | *Certhia americana* | Brown Creeper | | | |
| | *Baeolophus bicolor* | Tufted Titmouse | | | |
| | *Sitta carolinensis* | White-breasted Nuthatch | | | |
| | *Sitta canadensis* | Red-breasted Nuthatch | | | |
| | | | | | |
| Wrens | *Cistothorus palustris* | Marsh Wren | | | |
| | *Cistothorus platensis* | Sedge Wren | T | | Y |
| | *Thryothorus ludovicians* | Carolina Wren | | | |
| | *Troglodytes aedon* | House Wren | | | |
| | *Troglodytes troglodytes* | Winter Wren | | | |
| | | | | | |
| Kinglets, and Gnatcatchers | *Regulus satrapa* | Golden-crowned Kinglet | | | |
| | *Regulus calendula* | Ruby-crowned Kinglet | | | |
| | *Polioptila caerulea* | Blue-gray Gnatcatcher | | | |
| | | | | | |
| Thrushes | *Sialia sialis* | Eastern Bluebird | | | |
| | *Catharus ustulatus* | Swainson's Thrush | | | |
| | *Catharus fuscescens* | Veery | | | |
| | *Catharus guttatus* | Hermit Thrush | | | |
| | *Hylocichla mustelina* | Wood Thrush | | | Y |
| | *Turdus migratorius* | American Robin | | | |
| | | | | | |
| Mimids | *Dumetella carolinensis* | Gray Catbird | | | |
| | *Mimus polyglottos* | Northern Mockingbird | | | |
| | *Toxostoma rufum* | Brown Thrasher | | | Y |
| | | | | | |
| Pipits | *Anthus rubescens* | American Pipit | | | |
| | | | | | |
| Waxwings | *Bombycilla cedrorum* | Cedar Waxwing | | | |
| | | | | | |
| Starlings, Mynas, and Bulbul | *Sturnus vulgaris* | European Starling | Exotic | | |
| | | | | | |
| Wood-warblers | *Vermivora ruficapilla* | Nashville Warbler | | | |
| | *Vermivora pinus* | Blue-winged Warbler | | | Y |
| | *Parula americana* | Northern Parula | | | |
| | *Dendroica petechia* | Yellow Warbler | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| | *Dendroica pensylvanica* | Chestnut-sided Warbler | | | |
| | *Dendroica magnolia* | Magnolia Warbler | | | |
| | *Dendroica fusca* | Blackburnian Warbler | | | |
| | *Dendroica caerulescens* | Black-throated Blue Warbler | | | Y |
| | *Dendroica cerulea* | Cerulean Warbler | SC | | Y |
| | *Dendroica virens* | Black-throated Green Warbler | | | |
| | *Dendroica palmarum* | Palm Warbler | | | |
| | *Dendroica coronata* | Yellow-rumped Warbler | | | |
| | *Dendroica pinus* | Pine Warbler | | | |
| | *Dendroica discolor* | Prairie Warbler | | | Y |
| | *Dendroica striata* | Blackpoll Warbler | | | |
| | *Dendroica castanea* | Bay-breasted Warbler | | | Y |
| | *Mniotilta varia* | Black-and-white Warbler | | | |
| | *Setophaga ruticilla* | American Redstart | | | |
| | *Helmitheros vermivora* | Worm-eating Warbler | | | Y |
| | *Geothlypis trichas* | Common Yellowthroat | | | |
| | *Oporornis philadelphia* | Mourning Warbler | | | |
| | *Seiurus noveboracensis* | Northern Waterthrush | | | |
| | *Seiurus motacilla* | Louisiana Waterthrush | | | Y |
| | *Seiurus aurocapillus* | Ovenbird | | | |
| | *Wilsonia canadensis* | Canada Warbler | | | Y |
| | *Wilsonia citrina* | Hooded Warbler | | | |
| | | | | | |
| Tanagers, Cardinals and Their Allies | *Piranga olivacea* | Scarlet Tanager | | | Y |
| | *Pheucticus ludovicianus* | Rose-breasted Grosbeak | | | |
| | *Passerina cyanea* | Indigo Bunting | | | |
| | *Cardinalis cardinalis* | Northern Cardinal | | | |
| | | | | | |
| Emberizine Sparrows and Their Allies | *Pipilo erythrophthalmus* | Eastern Towhee | | | |
| | *Spizella passerina* | Chipping Sparrow | | | |
| | *Spizella pusilla* | Field Sparrow | | | |
| | *Spizella arborea* | American Tree Sparrow | | | |
| | *Passerculus sandwichensis* | Savannah Sparrow | | | |
| | *Melospiza melodia* | Song Sparrow | | | |
| | *Melospiza georgiana* | Swamp Sparrow | | | |
| | *Passerella iliaca* | Fox Sparrow | | | |
| | *Zonotrichia albicollis* | White-throated Sparrow | | | |
| | *Junco hyemalis* | Dark-eyed Junco | | | |
| | *Pletctrophenax nivalis* | Snow Bunting | | | |
| | | | | | |
| Icterids | *Icterus galbula* | Baltimore Oriole | | | |
| | *Icterus spurius* | Orchard Oriole | | | |
| | *Sturnella magna* | Eastern Meadowlark | | | Y |

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|---|---|---|---|---|---|
| | *Dolichonyx oryziorus* | Bobolink | | | Y |
| | *Agelaius phoeniceus* | Red-winged Blackbird | | | |
| | *Euphagus carolinus* | Rusty Blackbird | | | Y |
| | *Quiscalus quiscula* | Common Grackle | | | |
| | *Molothrus ater* | Brown-headed Cowbird | | | |
| | | | | | |
| Finches and Old World Sparrows | *Passer domesticus* | House Sparrow | Exotic | | |
| | *Carduelis tristis* | American Goldfinch | | | |
| | *Carduelis pinus* | Pine Siskin | | | |
| | *Carpodacus mexicanus* | House Finch | | | |
| | *Carpodacus purpureus* | Purple Finch | | | |
| | | | | | |
| **Reptiles** | *Chelydra serpentina* | Snapping turtle | | | Y |
| | *Chrysemys picta* | Painted Turtle | | | |
| | *Nerodia sipedon* | Northern Water Snake | | | |
| | *Opheodrys vernalis* | Smooth Green Snake | SGCN | | Y |
| | *Thamnophis sirtalis* | Common Garter Snake | | | |
| | | | | | |
| **Amphibians** | *Ambystoma maculatum* | Spotted Salamander | | | |
| | *Bufo americanus* | American Toad | | | |
| | *Desmognathus fuscus* | Northern Dusky Salamander | | | |
| | *Eurycea bislineata* | Northern Two-lined Salamander | | | |
| | *Gyrinophilus porphyriticus* | Spring Salamander | | | |
| | *Hemidactylium scutatum* | Four-toed Salamander | | | Y |
| | *Hyla versicolor* | Gray Treefrog | | | |
| | *Notophthalmus viridescens* | Red-Spotted Newt | | | |
| | *Plethodon cinereus* | Red-backed Salamander | | | |
| | *Pseudacris crucifer* | Spring Peeper | | | |
| | *Rana catesbeiana* | Bullfrog | | | |
| | *Rana clamitans* | Green Frog | | | |
| | *Rana palustris* | Pickerel Frog | | | |
| | *Rana sylvatica* | Wood Frog | | | |
| | | | | | |
| **Fish** | *Ameiurus nebulosus* | Brown Bullhead | | | |
| | *Anguilla rostrata* | American Eel | | | Y |
| | *Ctenopharyngodon idella* | Grass Carp | | | |
| | *Esox americanus* | Redfin Pickerel | | | |
| | *Esox niger* | Chain Pickerel | | | |
| | *Lepomis macrochirus* | Bluegill | | | |
| | *Lepomis gibbosus* | Pumpkinseed | | | |
| | *Micropterus salmoides* | Largemouth Bass | | | |
| | *Notemigonus crysoleucas* | Golden Shiner | | | |
| | *Oncorhynchus mykiss* | Rainbow Trout | | | |
| | *Perca flavescens* | Yellow Perch | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| | *Pomoxis nigromaculatus* | Black Crappie | | | |
| | *Rhinichthys atratulus* | Black-nosed Dace | | | |
| | *Salmo trutta* | Brown Trout | | | |
| | *Salvelinus fontinalis* | Brook Trout (wild) | | | Y |
| | *Semotilus atromaculatus* | Creek Chub | | | |
| | | | | | |
| **Invertebrates** | | | | | |
| Ants | *Aphaenogaster cf. rudis* | A Formicid Ant | | | |
| | *Aphaenogaster picea* | A Formicid Ant | | | |
| | *Camponotus pennsylvanicus* | Black Carpenter Ant | | | |
| | *cf. Lasius cf. alienus* | A Formicid Ant | | | |
| | *Formica neogagates* | A Formicid Ant | | | |
| | *Formica obscuriventris* | A Formicid Ant | | | |
| | *Formica subsericea* | A Formicid Ant | | | |
| | *Lasius alienus* | A Formicid Ant | | | |
| | *Lasius flavus* | Yellow Meadow Ant | | | |
| | *Lasius nearcticus* | A Formicid Ant | | | |
| | *Lasius umbratus* | A Parasitic Ant | | | |
| | *Myrmica punctiventris* | An Myrmicine Ant | | | |
| | *Tapinoma sessile* | A Formicid Ant | | | |
| | *Temnothorax longispinosus* | A Formicid Ant | | | |
| | | | | | |
| Beetles | *Agonum cf fidele* | A Ground Beetle | | | |
| | *Anthribidae (Ormiscus or Eusphyrus?)* | Fungus weevil | | | |
| | *Bembidion quadrimaculatum* | A Ground Beetle | | | |
| | *Cymindis platicollis* | A Ground Beetle | | | |
| | *Dicaelus politus* | A Ground Beetle | | | |
| | *Gastrellarius honestus* | A Ground Beetle | | | |
| | *Harmonia axyridis* | Multicolored Asian Lady Beetle | | | |
| | *Harpalus cf spadiceus* | A Ground Beetle | | | |
| | *Harpalus indigens* | A Ground Beetle | | | |
| | *Nicrophorus sayi* | Sexton Beetle | | | |
| | *Platynus tenuicollis* | A Beetle | | | |
| | *Pterostichus pensylvanicus* | A Ground Beetle | | | |
| | *Pterostichus rostratus* | A Ground Beetle | | | |
| | *Pterostichus tristis* | A Ground Beetle | | | |
| | *Unknown Carabid* | A Ground Beetle | | | |
| | | | | | |
| Butterflies | *Boloria bellona* | Meadow Fritillary | | | |
| | *Celastrina ladon* | Spring Azure | | | |
| | *Erynnis juvenalis* | Juvenile's Duskywing | | | |
| | *Erynnis sp.* | A Duskywing | | | |
| | *Nymphalis antiopa* | Mourning Cloak | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| | *Papilio sp.* | Tiger Swallowtail | | | |
| | *Pieris rapae* | Cabbage White | | | |
| | *Pyrisitia lisa* | Little Yellow | | | |
| | | | | | |
| Caddisflies | *Dolophilodes distinctus* | A Fingernet Caddisfly | | | |
| | *Glyphotaelius hostilis* | A Northern Case Maker Caddisfly | | | |
| | *Hydropsyche sp.* | A Netspinner Caddisfly | | | |
| | *Lepidostoma sp.* | A Lepidostomatid Case Maker Caddisfly | | | |
| | *Limnephilus sp.* | A Northern Case Maker Caddisfly | | | |
| | *Neophylax sp.* | A Uenoid Case Maker Caddisfly | | | |
| | *Polycentropus sp.* | A Trumpetnet Caddisfly | | | |
| | *Pycnopsyche sp.* | A Northern Case Maker Caddisfly | | | |
| | *Rhyacophila fuscula* | A Freeliving Caddisfly | | | |
| | *Rhyacophila sp.* | A Freeliving Caddisfly | | | |
| | | | | | |
| Mayflies | *Ameletus sp.* | An Ameletid Minnow Mayfly | | | |
| | *Baetis intercalaris* | A Small Minnow Mayfly | | | |
| | *Baetis sp.* | A Small Minnow Mayfly | | | |
| | *Epeorus pleuralis* | Quill Gordon | | | |
| | *Ephemerella dorothea dorothea* | A Spiny Crawler Mayfly | | | |
| | *Ephemerella invaria* | A Spiny Crawler Mayfly | | | |
| | *Ephemerella subvaria* | A Spiny Crawler Mayfly | | | |
| | *Ephemerella subvaria* | A Spiny Crawler Mayfly | | | |
| | *Isonychia bicolor* | A Brushlegged Mayfly | | | |
| | *Maccaffertium modestum* | A Flatheaded Mayfly | | | |
| | *Maccaffertium vicarium* | A Flatheaded Mayfly | | | |
| | *Rhithrogena sp.* | A Flatheaded Mayfly | | | |
| | | | | | |
| Micromoths | *Acleris inana* | A Tortrix Moth | | | |
| | *Argyrotaenia mariana* | Gray-banded Leafroller Moth | | | |
| | *Arogalea cristifasciella* | Stripe-backed Moth | | | |
| | *Chimoptesis pennsylvaniana* | Filigreed Moth | | | |
| | *Dyseriocrania griseocapitella* | Chinquapin Leaf-miner Moth | | | |
| | *Pseudexentera costomaculana* | A Tortrix Moth | | | |
| | *Pseudexentera spoliana* | Bare-patched Leafroller Moth | | | |
| | *Pseudexentera virginiana* | An Olethreutine Moth | | | |
| | *Semioscopis aurorella* | Aurora Flatbody Moth | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| | *Semioscopis inornata* | Dull Flatbody Moth | | | |
| | *Semioscopis megamicrella* | A Concealor Moth | | | |
| | | | | | |
| Moths | *Achatia distincta* | Distinct Quaker | | | |
| | *Acronicta impressa* | Impressed Dagger Moth | | | |
| | *Aethalura intertexta* | Four-barred Gray Moth | | | |
| | *Anavitrinella pampinaria* | Common Gray Moth | | | |
| | *Argyrotaenia mariana* | Gray-banded Leafroller Moth | | | |
| | *Baileya dormitans* | A Nolid Moth | | | |
| | *Baileya levitans* | A Nolid Moth | | | |
| | *Cerastis fishii* | An Owlet Moth | | | |
| | *Cerastis tenebrifera* | Reddish Speckled Dart | | | |
| | *Cissusa spadix* | Black-dotted Brown | | | |
| | *Cladara anguilineata* | Angle-lined Carpet Moth | | | |
| | *Cladara atroliturata* | Scribbler Moth | | | |
| | *Cladara limitaria* | Mottled Gray Carpet Moth | | | |
| | *Cleora sp.* | A Geometer Moth | | | |
| | *Colocasia flavicornis* | Yellowhorn Moth | | | |
| | *Colocasia propinquilinea* | Closebanded Yellowhorn Moth | | | |
| | *Copivaleria grotei* | Grote's Sallow Moth | | | |
| | *Crocigrapha normani* | Norman's Quaker Moth | | | |
| | *Deidamia inscriptum* | Lettered Sphinx | | | |
| | *Drepana arcuata* | Arched Hooktip | | | |
| | *Dyseriocrania auricyanea* | A Eriocraniid Moth | | | |
| | *Ectropis crepuscularia* | Small Engrailed Moth | | | |
| | *Egira alternans* | Alternate Woodling | | | |
| | *Egira dolosa* | An Owlet Moth | | | |
| | *Ellida caniplaga* | Linden Prominent | | | |
| | *Eupithecia palpata* | Small Pine Looper Moth | | | |
| | *Eupithecia sp.* | A Geometer Moth | | | |
| | *Euthyatira pudens* | Dogwood Thyatirid Moth | | | |
| | *Eutrapela clemataria* | Curve-toothed Geometer Moth | | | |
| | *Feralia jocosa* | Jocose Sallow Moth | | | |
| | *Gluphisia avimacula* | Four-spotted Gluphisia Moth | | | |
| | *Heterocampa guttivitta* | Maple Prominent Moth | | | |
| | *Himella fidelis* | Intractable Quaker Moth | | | |
| | *Hydriomena sp.* | A Geometer Moth | | | |
| | *Hyperaeschra georgica* | Georgian Prominent | | | |
| | *Incisalia augustinus* | Brown Elfin | | | |
| | *Lithophane antennata* | Ashen Pinion Moth | | | |
| | *Lithophane bethunei* | Bethune's Pinion Moth | | | |
| | *Lithophane hemina* | An Owlet Moth | | | |
| | *Lithophane innominata* | Nameless Pinion Moth | | | |

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|---|---|---|---|---|---|
| | *Lithophane patefacta* | An Owlet Moth | | | |
| | *Lomographa glomeraria* | Gray Spring Moth | | | |
| | *Lomographa semiclarata* | Bluish Spring Moth | | | |
| | *Meganola minuscula* | A Nolid Moth | | | |
| | *Melanolophia canadaria* | Canadian Melanolophia Moth | | | |
| | *Melanolophia signataria* | Signate Melanolophia Moth | | | |
| | *Metarranthis sp. nr. "duaria"* | A Geometer Moth | | | |
| | *Morrisonia confusa* | An Owlet Moth | | | |
| | *Morrisonia evicta* | Bicolored Woodgrain Moth | | | |
| | *Nemoria bistriaria* | Red-fringed Emerald | | | |
| | *Nola triquetrana* | A Nolid Moth | | | |
| | *Orthofidonia flavivenata* | Yellow-veined Geometer Moth | | | |
| | *Orthosia hibisci* | Speckled Green Fruitworm Moth | | | |
| | *Orthosia revicta* | Subdued Quaker Moth | | | |
| | *Orthosia rubescens* | An Owlet Moth | | | |
| | *Phoberia atomaris* | Common Oak Moth | | | |
| | *Phragmatobia assimilans* | Large Ruby Tiger Moth | | | |
| | *Phyllodesma americana* | American Lappet Moth | | | |
| | *Plagodis phlogosaria* | Straight-lined Plagodis Moth | | | |
| | *Psaphida electilis* | Chosen Sallow | | | |
| | *Psaphida resumens* | Figure-eight Sallow | | | |
| | *Pyreferra citrombra* | An Owlet Moth | | | |
| | *Pyreferra hesperidago* | Mustard Sallow | | | |
| | *Semioscopis aurorella* | Aurora Flatbody Moth | | | |
| | *Semioscopis inornata* | Dull Flatbody Moth | | | |
| | *Spilosoma congrua* | Pink-legged Tiger Moth | | | |
| | *Venusia comptaria* | Brown-shaded Carpet Moth | | | |
| | *Xanthorhoe ferrugata* | Red Twin-Spot Moth | | | |
| | *Xanthorhoe lacustrata* | Toothed Brown Carpet Moth | | | |
| | *Zale duplicata* | Pine False Looper Moth | | | |
| | *Zale intenta* | An Owlet Moth | | | |
| | *Zale lunifera* | Pine Barrens Zale | | | |
| | *Zale minerea* | Colorful Zale Moth | | | |
| | *Zale unilineata* | One-lined Zale | | | |
| | | | | | |
| **Odonates** | *Anax junius* | Common Green Darner | | | |
| | *Basiaeschna janata* | Springtime Darner | | | |
| | *Enallagma ebrium* | Marsh Bluet | | | |
| | *Epitheca canis* | Beaverpond Baskettail | | | |
| | *Gomphus exilis* | Lancet Clubtail | | | |
| | *Ischnura posita* | Fragile Forktail | | | |
| | *Ischnura verticalis* | Eastern Forktail | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| **Other Invertebrates** | *Adelges tsugae* | Hemlock Woolly Adelgid | Exotic | | |
| | *Arion intermedius* | Hedgehog Arion Slug | | | |
| | *Arion subfuscus* | A Land Slug | | | |
| | *Bittacomorpha clavipes* | Phantom Crane Fly | | | |
| | *Bombus impatiens* | Common Eastern Bumble Bee | | | |
| | *Chironomidae* | A Nonbiting Midge | | | |
| | *Cicindela sexguttata* | Six-spotted Tiger Beetle | | | |
| | *Cyphon sp.* | A Marsh Beetle | | | |
| | *Ellychnia corrusca* | Winter Firefly | | | |
| | *Empidae* | A Fly | | | |
| | *Hirudinidae* | Leech | | | |
| | *Ixodes scapularis* | Black-legged Tick (Deer Tick) | | | |
| | *Nymphalis antiopa* | Mourning Cloak | | | |
| | *Pieris rapae* | Cabbage White | | | |
| | *Scolopocryptops sexpinosus* | Tropical Centipede | | | |
| | *Sigmoria trimaculata?* | Millipede | | | |
| | *Tipula sp.* | A Cranefly | | | |
| | *unknown* | A Bumble Bee | | | |
| | *unknown* | A Termite | | | |
| | *Xylocopa virginica* | Common Eastern Carpenter Bee | | | |
| | | | | | |
| **Snails** | *Carychium exile* | Ice Thorn | | | |
| | *Cochlicopa sp.* | A Land Snail | | | |
| | *Columella simplex* | High Spire Column | | | |
| | *Euconulus polygyratus* | Fat Hive | | | |
| | *Gastrocopta pentodon* | Comb Snaggletooth | | | |
| | *Glyphyalinia indentata* | Carved Glyph | | | |
| | *Glyphyalinia rhoadsi* | Sculpted Glyph | | | |
| | *Glyphyalinia wheatleyi* | Bright Glyph | | | |
| | *Hawaiian muinuscula* | Minute Gem Snail | | | |
| | *Helicodiscus parallelus* | Compound Coil | | | |
| | *Paravitrea multidentata* | Dentate Supercoil | | | |
| | *Planorbella campanulata* | Bellmouth Rams-horn | | | |
| | *Punctum minutissimum* | Small Spot | | | |
| | *Striatura exiguum* | A Snail | | | |
| | *Striatura ferrea* | Black Striate | | | |
| | *Striatura milium* | Fine-ribbed Striate Snail | | | |
| | *Triodopsis sp.* | A Land Snail | | | |
| | *Vertigo gouldii* | Variable Vertigo | | | |
| | *Zonitoides arboreus* | Orchid Snail | | | |
| | | | | | |
| **Stoneflies** | *Agnetina capitata* | Northern Stone | | | |
| | *Amphinemura sp.* | A Nemourid Stonefly | | | |

| | Scientific Name | Common Name | NYS Listing | Federal Listing | SGCN |
|---|---|---|---|---|---|
| | *Isogenoides hansoni* | Appalachian Springfly | | | |
| | *Isoperla sp.* | A Perlodid Stonefly | | | |
| | *Paraleuctra sara* | Appalachian Needlefly | | | |
| | *Pteronarcys proteus* | Appalachian Salmonfly | | | |
| | *Sweltsa onkos* | Ontario Sallfly | | | |
| | *Sweltsa sp.* | A Green Stonefly | | | |
| * Note - Birds are documented from within the Park or in adjacent Breeding Bird Atlas Blocks | | | | | |
| **Abbreviations** | | | | | |
| SGCN | Species of Greatest Conservation Need | Rare or declining in New York State, *DEC designation,* http://www.dec.ny.gov/animals/9406.html | | | |
| SC | Species of Special Concern | *DEC designation,* http://www.dec.ny.gov/animals/7494.html | | | |
| T | Threatened Species | *DEC designation,* http://www.dec.ny.gov/animals/7494.html | | | |
| E | Endangered Species | *DEC designation,* http://www.dec.ny.gov/animals/7494.html | | | |

# Sources:


MassAudubon. 2016. Breeding Bird Atlas 2. Available online at http://www.massaudubon.org/our-conservation-work/wildlife-research-conservation/statewide-bird-monitoring/breeding-bird-atlases/bba2. Accessed online June 17, 2016.

McGowan, K.J., & Corwin, K. (2008). The Second Atlas of Breeding Birds in New York State. Ithaca, NY: Cornell University Press.

Natural Heritage Program, *Results from May 4-5, 2013 bioblitz at Taconic State Park, New York*. Data compiled by NY Natural Heritage Program for New York State Office of Parks, Recreation and Historic Preservation.

OPRHP, 2017. Albany and Taconic regional staff observations and records.

Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2009. eBird: a citizen-based bird observation network in the biological sciences. Biological Conservation 142: 2282-2292.


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| Documented Flora | | |
|---|---|---|
| | **Scientific Name** | **Common Name** |
| **Trees** | *Acer pensylvanicum* | Striped Maple |
| | *Acer rubrum* | Red Maple |
| | *Acer saccharum* | Sugar Maple |
| | *Ailanthus altissima* * | Tree-of-Heaven * |
| | *Betula lenta* | Black Birch |
| | *Betula papyrifera* | White Birch |
| | *Betula populifolia* | Gray Birch |
| | *Betula alleghaniensis* | Yellow Birch |
| | *Carpinus sp.* | Hornbeam |
| | *Carya glabra* | Pignut Hickory |
| | *Carya ovata* | Shagbark Hickory |
| | *Castanea dentata* | American Chestnut |
| | *Fagus grandifolia* | American Beech |
| | *Fraxinus americana* | White Ash |
| | *Fraxinus pennsylvanica* | Green Ash |
| | *Juniperus virginiana* | Eastern Red Cedar |
| | *Pinus resinosa* | Red Pine |
| | *Pinus rigida* | Pitch Pine |
| | *Pinus strobus* | White Pine |
| | *Prunus serotina* | Black Cherry |
| | *Prunus virginiana* | Choke Cherry |
| | *Robinia pseudoacacia* * | Black Locust * |
| | *Quercus alba* | White Oak |
| | *Quercus ilicifolia* | Scrub Oak |
| | *Quercus montana* | Chestnut Oak |
| | *Quercus palustris* | Pin Oak |
| | *Quercus rubra* | Red Oak |
| | *Quercus stellata* | Post Oak |
| | *Quercus velutina* | Black Oak |
| | *Tsuga canadensis* | Eastern Hemlock |
| | *Malus sp.* | Apple |
| | *Ostrya virginiana* | Hop-hornbeam |
| | *Robinia pseudoacacia* | Black Locust |
| | *Salix sp.* | Willow |
| | *Tilia americana* | Basswood |
| | | |
| **Shrubs and Vines** | *Alnus incana ssp. rugosa* | Speckled Alder |

| | Scientific Name | Common Name |
|---|---|---|
| | *Amelanchier arborea* | Common Serviceberry |
| | *Amelanchier laevis* | Smooth Shadbush |
| | *Aronia melanocarpa* | Black Chokeberry |
| | *Berberis thunbergii* * | Japanese Barberry * |
| | *Berberis vulgaris* * | European Barberry * |
| | *Celastrus orbiculatus* * | Asiatic Bittersweet * |
| | *Cornus alternifolia* | Alternate-leaved Dogwood |
| | *Cornus florida* | Flowering Dogwood |
| | *Cornus racemosa* | Gray Dogwood |
| | *Cornus sericea ssp. sericea* | Red Osier Dogwood |
| | *Dasiphora fruticosa* | Shrubby Cinquefoil |
| | *Diervilla lonicera* | Northern Bush-honeysuckle |
| | *Elaeagnus umbellata* | Autumn Olive |
| | *Euonymus alatus* * | Burning Bush * |
| | *Gaylussacia baccata* | Black Huckleberry |
| | *Hamamelis virginiana* | American Witch Hazel |
| | *Kalmia latifolia* | Mountain Laurel |
| | *Ligustrum obtusifolium* * | Border Privet * |
| | *Ligustrum vulgare* * | European, aka Common Privet * |
| | *Lindera benzoin* | Spicebush |
| | *Lonicera maackii* * | Amur Honeysuckle * |
| | *Lonicera morrowii* * | Morrow's Honeysuckle * |
| | *Lonicera tatarica* | Tartarian Honeysuckle |
| | *Myrica gale* | Sweet Bayberry |
| | *Ribes hirtellum* | Smooth Gooseberry |
| | *Ribes rotundifolium* | Roundleaf Gooseberry |
| | *Rhamnus cathartica* * | Common Buckthorn * |
| | *Rhus typhina* | Staghorn Sumac |
| | *Rosa carolina* | Carolina Rose |
| | *Rosa multiflora* * | Multiflora Rose * |
| | *Rhododendron sp.* | Azalea |
| | *Rubus idaeus* | Red Raspberry |
| | *Rubus odoratus* | Flowering Raspberry |
| | *Rubus pubescens* | Dwarf Red Blackberry |
| | *Sambucus racemosa* | Red Elderberry |
| | *Sambucus sp.* | Elderberry |
| | *Spiraea alba* | Meadowsweet |
| | *Spiraea tomentosa* | Steeplebush |

| | Scientific Name | Common Name |
|---|---|---|
| | *Toxicodendron radicans* | Poison Ivy |
| | *Toxicodendron vernix* | Poison Sumac |
| | *Vaccinium angustifolium* | Lowbush Blueberry |
| | *Vaccinium corymbosum* | Highbush Blueberry |
| | *Viburnum acerifolium* | Maple-leaved Viburnum |
| | *Viburnum rafinesquianum* | Downy Arrowwood |
| | *Vitis sp.* | Grape |
| | | |
| **Herbaceous Plants** | *Actaea pachypoda* | Doll's Eyes |
| | *Actaea rubra* | Red Baneberry |
| | *Alliaria petiolata* * | Garlic Mustard * |
| | *Allium sp.* | Wild Leeks |
| | *Antennaria neglecta* | Field Pussytoes |
| | *Antennaria plantaginifolia* | Woman's Tobacco |
| | *Aquilegia canadensis* | Wild Columbine |
| | *Aquilegia formosa* | Red Columbine |
| | *Arabis laevigata* | Smooth Rockcress |
| | *Arabis lyrata* | Lytrate Rockcress |
| | *Aralia nudicaulis* | Wild Sarsaparilla |
| | *Arctium minus* | Common Burdock |
| | *Arctostaphylos uva-ursi* | Kinnikinnick |
| | *Arisaema triphyllum* | Jack-in-the-pulpit |
| | *Asarum caudatum* | Wild Ginger |
| | *Athyrium filix-femina* | Lady Fern |
| | *Boechera laevigata* | Smooth Rockcress |
| | *Botrychium virginianum* | Rattlesnake Fern |
| | *Brassica sp.* | A Mustard |
| | *Bromus tectorum* * | Cheatgrass * |
| | *Calamagrostis canadensis* | Bluejoint |
| | *Caltha palustris* | Marsh Marigold |
| | *Cardamine concatenata* | Toothwort |
| | *Cardamine diphylla* | Two-leaved Toothwort |
| | *Cardamine parviflora* | Sand Bittercress |
| | *Cardamine pensylvanica* | Pennyslvania Bittercress |
| | *Carex albicans* | White-tinged Sedge |
| | *Carex bromoides* | Bromelike Sedge |
| | *Carex communis* | Fibrous-root Sedge |
| | *Carex lacustris* | Lake-bank Sedge |

| | Scientific Name | Common Name |
|---|---|---|
| | *Carex lasiocarpa* | American Woollyfruit Sedge |
| | *Carex pensylvanica* | Pennsylvania Sedge |
| | *Carex stricta* | Tussock Sedge |
| | *Carex tonsa?* | Shaved Sedge |
| | *Carex umbellata* | Hidden Sedge |
| | *Caulophyllum thalictroides* | Blue Cohosh |
| | *Centaurea maculosa* * | Spotted Knapweed * |
| | *Chelone glabra* | White Turtlehead |
| | *Cichorium intybus* | Common Chicory |
| | *Cicuta bulbifera* | Bulb-bearing Water-hemlock |
| | *Circaea sp.* | A Nightshade |
| | *Comandra umbellata* | Bastard Toadflax |
| | *Comarum palustre* | Marsh Cinquefoil |
| | *Corydalis aurea* | Golden Corydalis |
| | *Corydalis sempervirens* | Pink Corydalis |
| | *Cynanchum louiseae* * | Black Swallow-wort * |
| | *Dactylis glomerata* | Orchardgrass |
| | *Danthonia spicata* | Poverty Oatgrass |
| | *Deschampsia flexuosa* | Wavy Hairgrass |
| | *Deschampsia sp.* | A Hairgrass |
| | *Dicentra canadensis* | Squirrel Corn |
| | *Dicentra cucullaria* | Dutchman's Breeches |
| | *Drosera rotundifolia* | Roundleaf Sundew |
| | *Dryopteris carthusiana* | Spinulose Shield Fern |
| | *Dryopteris intermedia* | Evergreen Woodfern |
| | *Dryopteris marginalis* | Marginal Woodfern |
| | *Trapa natans* * | Chinese Water Chestnut * |
| | *Epigaea repens* | Trailing Arbutus |
| | *Equisetum fluviatile* | Water Horsetail |
| | *Eriophorum virginicum* | Tawny Cotton-grass |
| | *Erythronium sp.* | Trout Lily |
| | *Eurybia divaricata* | White Wood Aster |
| | *Fragaria virginiana* | Wild Strawberry |
| | *Galium aparine* | Catchweed Bedstraw |
| | *Gaultheria procumbens* | Wintergreen |
| | *Geranium maculatum* | Wild Crane's Bill |
| | *Geranium robertianum* | Robert's Geranium |
| | *Geranium sp.* | Wild Geranium |

| | Scientific Name | Common Name |
|---|---|---|
| | *Geum rivale* | Purple Avens |
| | *Glechoma hederacea* * | Gill-over-the-ground or Ground Ivy * |
| | *Hepatica nobilis var. acuta* or *Hepatica acutiloba* | Sharp-lobed Hepatica |
| | *Hepatica nobilis var. obtusa* or *Hepatica Americana* | Round-lobed Hepatica |
| | *Hieracium paniculatum* | Allegheny Hawkweed |
| | *Hydrophyllum virginianum* | Virginia Waterleaf |
| | *Impatiens capensis* | Spotted Jewelweed |
| | *Lysimachia quadrifolia* | Whorled Loosestrife |
| | *Lythrum salicaria* * | Purple Loosestrife * |
| | *Maianthemum canadense* | Canada Mayflower |
| | *Maianthemum dilatatum* | Wild Lily-of-the-valley |
| | *Maianthemum racemosum* | False Solomon's Seal |
| | *Mitchella repens* | Partridge Berry |
| | *Mitella diphylla* | Twoleaf Miterwort |
| | *Myriophyllum spicatum* * | Eurasian Watermilfoil * |
| | *Onoclea sensibilis* | Sensitive Fern |
| | *Osmorhiza claytonii* | Clayton's Sweetroot |
| | *Osmunda cinnamomea* | Cinnamon Fern |
| | *Osmunda regalis* | Royal Fern |
| | *Oxalis violacea* | Violet Woodsorrel |
| | *Packera aurea* | Golden Ragwort |
| | *Packera obovata* | Round-leaf Ragwort |
| | *Parnassia glauca* | Grass-of-Parnassus |
| | *Parthenocissus quinquefolia* | Virginia Creeper |
| | *Persicaria maculosa** | Spotted Lady's Thumb* |
| | *Phragmites australis ssp. Australis* * | Common Reed * |
| | *Poa compressa* * | Canada Bluegrass * |
| | *Polygala paucifolia* | Gaywings |
| | *Polygonatum biflorum* | Smooth Solomon's Seal |
| | *Polygonatum commutatum* | Solomon's Seal |
| | *Polygonatum pubescens* | Hairy Solomon's Seal |
| | *Polygonum sp.* | A Knotweed |
| | *Polypodium virginianum* | Rock Polypody |
| | *Polystichum acrostichoides* | Christmas Fern |
| | *Populus grandidentata* | Bigtooth Aspen |
| | *Potamogeton crispus* * | Curlyleaf Pondweed * |
| | *Potentilla simplex* | Common Cinquefoil |

| | Scientific Name | Common Name |
|---|---|---|
| | *Pteridium aquilinum* | Bracken Fern |
| | *Ranunculus abortivus* | Little-leaved Buttercup |
| | *Ranunculus hispidus* | Hispid Buttercup |
| | *Reynoutria japonica var. japonica* * | Japanese Knotweed * |
| | *Sanguinaria canadensis* | Bloodroot |
| | *Saxifraga virginiensis* | Early Saxifrage |
| | *Schizachyrium scoparium* | Little Bluestem |
| | *Senecio aureus* | Golden Ragwort |
| | *Sibbaldiopsis tridentata* | Three-toothed Cinquefoil |
| | *Smilax herbacea* | Smooth Carrionflower |
| | *solidago arguta* | Atlantic Goldenrod |
| | *Solidago caesia* | Blue-stemmed Goldenrod |
| | *Solidago uliginosa* | Bog Goldenrod |
| | *Solidago ulmifolia?* | Ulm-leaved Goldenrod |
| | *Symphyotrichum puniceum* | Purplestem Aster |
| | *Symplocarpus foetidus* | Skunk Cabbage |
| | *Taraxacum officinale* | Common Dandelion |
| | *Thalictrum dioicum* | Early Meadow-rue |
| | *Thalictrum pubescens* | Tall Meadow-rue |
| | *Thalictrum thalictroides* | Rue-anemone |
| | *Thelypteris palustris* | Marsh Fern |
| | *Trientalis borealis* | Northern Starflower |
| | *Trillium erectum* | Red Trillium |
| | *Tussilago farfara* * | Coltsfoot * |
| | *Typha latifolia* | Broad-leaf Cattail |
| | *Typha sp.* | Common Cattail |
| | *Urtica dioica* | Stinging Nettle |
| | *Uvularia sessilifolia* | Sessile Bellwort |
| | *Uvularia sp.* | Bellwort |
| | *Veronica officinalis* * | Gypsy-weed, Common Speedwell * |
| | *Viola blanda* | Sweet White Violet |
| | *Viola pubescens* | Yellow Violet |
| | *Viola renifolia* | Kidney-leaf White Violet |
| | *Viola sagittata* | Arrow-leaved Violet or Oval-leaved Violet |
| | *Viola septentrionalis* | Northern Blue Violet |
| | *Viola sp.* | Violet |
| | *Woodsia sp.* | Woodsia |
| | | |

| | Scientific Name | Common Name |
|---|---|---|
| **Non-vascular Plants** | *Climacium dendroides* | Tree Climacium Moss |
| | *Leucobryum glaucum* | Pincushion Moss |
| | *Sphagnum sp.* | A Peatmoss |
| | *Umbilicaria sp.* | Rock Tripe |
| | Unknown | Lichen |
| **Note:** | | |
| * Exotic species | | |

## Sources:

Natural Heritage Program, *Results from May 4-5, 2013 bioblitz at Taconic State Park, New York*. Data compiled by NY Natural Heritage Program for New York State Office of Parks, Recreation and Historic Preservation.

OPRHP, 2017. Taconic regional staff observations and records.

| Documented Fungi |
| --- |
| **Scientific Name** |
| *Agaricus campestris* |
| *Agaricus placomyces* |
| *Amanita citrina* |
| *Amanita fulva* |
| *Aleuria aurantia* |
| *Amanita bisporigera* |
| *Amanita brunnescens* |
| *Amanita crenulata* |
| *Amanita sinicoflava* |
| *Armillaria mellea* |
| *Austroboletus gracilis* |
| *Baorangia bicolor* |
| *Bisporella citrina* |
| *Boletellus chrysenteroides* |
| *Boletus badius* |
| *Boletus bicoloroides* |
| *Boletus frostii* |
| *Boletus longicurvipes* |
| *Boletus pallidoroseus* |
| *Boletus pallidus* |
| *Boletus rhodosanguineus* |
| *Boletus subvelutipes* |
| *Cantharellus cibarius* |
| *Cantharellus cinnabarinus* |
| *Ceratiomyxa fruticulosa* |
| *Ceratiomyxa porioides* |
| *Chlorociboria aeruginascens* |
| *Climacodon septentrionalis* |
| *Clitocybe odora* |
| *Clitocybe phaeophthalma* |
| *Conocybe albipes* |
| *Cortinarius armillatus* |
| *Cortinarius cinnamomeus* |
| *Cortinarius iodes* |
| *Cortinarius semisanguineus* |
| *Craterellus tubaeformis* |
| *Crepidotus applanatus* |

| Scientific Name |
| --- |
| *Crucibulum laeve* |
| *Daedalea quercina* |
| *Daedaleopsis confragosa* |
| *Daldinia childiae* |
| *Dialonectria episphaeria* |
| *Diatrype stigma* |
| *Entoloma abortivum* |
| *Entoloma serrulatum* |
| *Entoloma strictius* |
| *Fistulina hepatica* |
| *Flammulaster erinaceellus* |
| *Fomes fomentarius* |
| *Fomitopsis pinicola* |
| *Ganoderma applanatum* |
| *Ganoderma tsugae* |
| *Geastrum saccatum* |
| *Gloeoporus dichrous* |
| *Gomphidius maculatus* |
| *Gymnopus confluens* |
| *Gyrodon intermedius* |
| *Gyrodon merulioides* |
| *Gyroporus castaneus* |
| *Gyroporus purpurinus* |
| *Helvella elastica* |
| *Hemileccinum subglabripes* |
| *Hohenbuehelia mastrucata* |
| *Hydnum umbilicatum* |
| *Hygrocybe chlorophana* |
| *Hygrocybe purpureofolia* |
| *Hygrophoropsis aurantiaca* |
| *Hymenochaete rubiginosa* |
| *Hymenopellis furfuracea* |
| *Hymenoscyphus sp.* |
| *Hypholoma fasciculare* |
| *Hypholoma lateritium* |
| *Hypomyces chrysospermus* |
| *Inocybe lacera* |
| *Inocybe tahquamenonensis* |

| Scientific Name |
| --- |
| *Inonotus obliquus* |
| *Inonotus quercustris* |
| *Irpex lacteus* |
| *Ischnoderma benzoinum* |
| *Laccaria nobilis* |
| *Lacrymaria lacrymabunda* |
| *Lactarius corrugis* |
| *Lactarius chrysorheus* |
| *Lactarius deterrimus* |
| *Lactarius subpurpureus* |
| *Lactarius vinaceorufescens* |
| *Lactarius volemus* |
| *Laetiporus sulphureus* |
| *Leccinum scabrum* |
| *Leccinum snellii* |
| *Leccinum variicolor* |
| *Lentinellus ursinus* |
| *Lenzites betulina* |
| *Lepista irina* |
| *Lepista nuda* |
| *Leucoagaricus rubrotinctus* |
| *Leucogloea compressa* |
| *Lycogala epidendrum* |
| *Lycoperdon echinatum* |
| *Lycoperdon marginatum* |
| *Lycoperdon perlatum* |
| *Lycoperdon pyriforme* |
| *Marasmius capillaris* |
| *Marasmius cohaerens* |
| *Marasmius siccus* |
| *Marasmius strictipes* |
| *Megacollybia rodmanii* |
| *Metatrichia vesparium* |
| *Mycena leaiana* |
| *Nectria cinnabarina* |
| *Otidea onotica* |
| *Oxyporus populinus* |
| *Panellus pusillus* |

| Scientific Name |
| --- |
| *Panellus stipticus* |
| *Paxillus involutus* |
| *Phaeocalicium polyporaeum* |
| *Phallus ravenelii* |
| *Phlebia tremellosa* |
| *Pholiota squarrosa* |
| *Pholiota squarrosoides* |
| *Phylloporus leucomycelinus* |
| *Piptoporus betulinus* |
| *Pleurotus pulmonarius* |
| *Pluteus cervinus* |
| *Pluteus flavofuligineus* |
| *Pluteus tomentosulus* |
| *Polyporus alveolaris* |
| *Polyporus squamosus* |
| *Polyporus varius* |
| *Poronidulus conchifer* |
| *Pseudoboletus parasiticus* |
| *Retiboletus ornatipes* |
| *Reticularia lycoperdon* |
| *Rhizomarasmius pyrrhocephalus* |
| *Rhodocollybia maculata* |
| *Royoporus badius* |
| *Russula mariae* |
| *Russula parvovirescens* |
| *Russula pseudolepida* |
| *Scleroderma cepa* |
| *Scleroderma citrinum* |
| *Scutellinia scutellata* |
| *Steccherinum ochraceum* |
| *Stereum complicatum* |
| *Stereum hirsutum* |
| *Stereum ostrea* |
| *Stereum striatum* |
| *Strobilomyces floccopus* |
| *Stropharia hardii* |
| *Suillus americanus* |
| *Suillus granulatus* |

| Scientific Name |
| --- |
| *Synchytrium decipiens* |
| *Syzygites megalocarpus* |
| *Trametes aesculi* |
| *Trametes gibbosa* |
| *Trametes versicolor* |
| *Tremella mesenterica* |
| *Tremellodendron schweinitzii* |
| *Trichaptum biforme* |
| *Tricholomopsis decora* |
| *Tylopilus rubrobrunneus* |
| *Xerocomellus chrysenteron* |
| *Xeromphalina campanella* |
| *Xeromphalina kauffmanii* |
| *Xylaria hypoxylon* |
| *Xylaria polymorpha* |

## **Sources**:

Surveys conducted under OPRHP Scientific Research Permit by Connecticut – Westchester Mycological Association, 2014 – 2016.

## *Appendix C*

# New York State
# Bird Conservation Area Program
# Management Guidance Summary

**Site Name:** Taconic State Park BCA

**State Ownership and Managing Agency:** Office of Parks, Recreation, and Historic Preservation

**Location:** Columbia County, Towns of Ancram and Copake
Dutchess County, Town of Northeast

**Size of Area:** 5985 acres

**DEC Regions:** 3 and 4 **OPRHP Region:** Taconic

**General Site Information:** The Taconic State Park BCA encompasses a majority of the Park, including a large forested ridge straddling the border of New York, Massachusetts, and Connecticut. The BCA is dominated by several high quality ecological community types, the majority being oak-dominated, with embedded hemlock-northern hardwood ravines and rocky summits. The adjacent valley is characterized by additional forest community types of oaks, maples, and basswood, and former and active agricultural lands. The BCA contains several ponds and wetlands, including Rudd Pond in Dutchess County. The BCA supports a representative community of breeding and migratory birds that rely on mature hardwood and hemlock forests, successional habitats, and a diversity of wetlands.

**Vision Statement:** Recreational/interpretive opportunities and access will continue in a manner consistent with the conservation of the diverse assemblage of bird species occupying the Taconic Ridge and associated valley for breeding and migration. The BCA will remain in a relatively natural condition.

**Key BCA Criteria:** Migratory concentration site; diverse species concentration site (ECL §11-2001, 3. e. and f.). During spring and fall migration, songbirds can be found in abundance in the varying habitats of the Taconic Ridge and associated valley. Of the 162 species likely to be on parkland, 128 have been observed in the Park and 115 are likely to be breeding in the Park. Of these, 86 Neotropical migratory songbird species have been documented in the Park during migration. Migratory species of interest documented at the Park include great egret, ring-necked duck, golden eagle, ruby-crowned kinglet, palm warbler, blackpoll warbler, bay-breasted warbler, and fox sparrow. Breeding or potentially breeding species of interest include black vulture, Cooper's hawk, American kestrel, wild turkey, ruffed grouse, Virginia rail, Eastern screech owl, barred owl, great-horned owl, willow flycatcher, least flycatcher, yellow-throated vireo, blue-headed vireo, common raven, Swainson's thrush, wood thrush, magnolia warbler, blackburnian warbler, black-throated blue warbler, black-throated green warbler, prairie warbler, black and white warbler, American redstart, worm-eating warbler, common yellowthroat, Louisiana waterthrush, ovenbird, scarlet tanager, rose-breasted grosbeak, indigo bunting, Eastern towhee, Baltimore oriole, and purple finch.

**Critical Habitat Types:** The Taconic State Park BCA contains various wetland habitats, including a 14-acre Medium Fen and 3-acre Rich Shrub Fen. Upland habitats important to specific suites of birds include a 4-acre Rocky Summit Grassland and several patches of Pitch Pine-Oak-Heath Rocky Summit encompassing 133-acres. These specific habitats provide habitat for a variety of birds, including Virginia rail, palm warbler, and prairie warbler. Extensive unbroken forested habitats comprise the majority of the Park, with Appalachian Oak-Hickory and Chestnut Oak Forests dominating the landscape. Hemlock-Northern Hardwood Forest and Maple-Basswood Rich Mesic Forest make up significant acreage, as well. These habitats provide important stopover and breeding sites for forest-breeding species such as wood thrush, hermit thrush, Eastern wood-pewee, veery, scarlet tanager, golden-crowned kinglet, pileated woodpecker, and barred owl, to name a few. Open field and early successional habitats in the Park support breeding and migratory species such as American woodcock, ruffed grouse, Eastern bluebird, and wild turkey.

## Operation and Management Considerations:

- *Identify habitat management activities needed to maintain site as a BCA.*

Several invasive plant species, including Common Reed (*Phragmites australis*), Black Swallow-wort (*Cynanchum louiseae*), Honeysuckle sp. (*Lonicera* sp.), and others have successfully established themselves within the BCA. Many of these invasive species impede growth and regeneration of forested and wetland habitats and reduce habitat quality for birds. Management should focus on efforts to inhibit the establishment and spread of non-native vegetation and encourage growth of native species in the BCA. Additionally, partnerships with conservation organizations and private landowners to control Common Reed on private wetlands adjoining state owned lands would aid in maintaining critical habitats within and outside the BCA.

It will also be critically important to maintain the health and quality of the forested landscape through monitoring of invasive insect pests and pathogens and management should they be found. Attention should be directed towards the early detection and rapid response of forest pests, such as Hemlock Wooly Adelgid (*Adelges tsugae)* and Asian Longhorned Beetle (*Anoplophora glabripennis*), that could alter forest composition and negatively impact the habitat requirements for desirable avian species.

- *Identify seasonal sensitivities; adjust routine operations accordingly.*

Maintenance of open field and successional shrubland habitats should continue using best management practices for birds, such as those outlined in bird friendly haying management guidance documents.

Vegetation clearing to maintain the paragliding area at the summit of Brace Mountain will be timed to avoid impacts to nesting birds.

- *Identify state activities or operations that may pose a threat to the critical habitat types identified above; recommend alternatives to existing and future operations, which may pose threats to those habitats.*

There are currently no state activities that pose a threat to critical habitat types.

- *Identify any existing or potential use impacts; recommend new management strategies to address those impacts.*

There are currently no existing use impacts. Any future activities in the BCA that could impact critical habitats and birds will be addressed through the standard NYS SEQR process.

- *Assess current access; recommend enhanced access, if feasible.*

Current access is adequate. Park grounds are open year-round. Numerous trails are available for hiking and bird watching.

## Education, Outreach, and Research Considerations:

- *Determine education and outreach needs; recommend strategies and materials.*

A BCA kiosk will be designed and installed in an appropriate location within the Park, and will illustrate the birds and bird habitats found within Taconic State Park.

An updated bird checklist for the BCA will be developed and be made publicly accessible.

Encourage partnerships with local bird conservation groups and environmental education centers in order to enhance appreciation and conservation of the bird community at the BCA. Local conservation groups include the Ralph T. Waterman Bird Club and the National Audubon Society.

- *Identify research needs; prioritize and recommend specific projects or studies.*

Long-term survey and monitoring of the bird community and habitats is recommended to refine species lists, identify habitat management needs, and help evaluate the success of habitat improvement actions. Local bird clubs and bird conservation groups could be enlisted to assist with these tasks.

## Contacts:

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Chris Rickard, OPRHP, Taconic State Park, 518-329-3993

Jesse Jaycox, OPRHP Taconic Regional Office, 845-889-3868

## Sources:

Andrle, R. F., and J. R. Carroll, Eds. 1988. The atlas of breeding birds in New York State. Cornell University Press, Ithaca, NY.

McGowan, K. J., and K. Corwin, eds. 2008. The atlas of breeding birds in New York State: 2000-2005. Cornell University Press, Ithaca, NY.

Petersen, W. R., Kamm, M., Walsh, J., and Galluzzo, J. (2013). Massachusetts breeding bird atlas 2. New York, NY: Scott & Nix, Inc.

Bevier, L. R., and Askins, R. (1994). The Atlas of breeding birds of Connecticut. Hartford, CT: State Geological and Natural History Survey of Connecticut, Dept. of Environmental Protection.

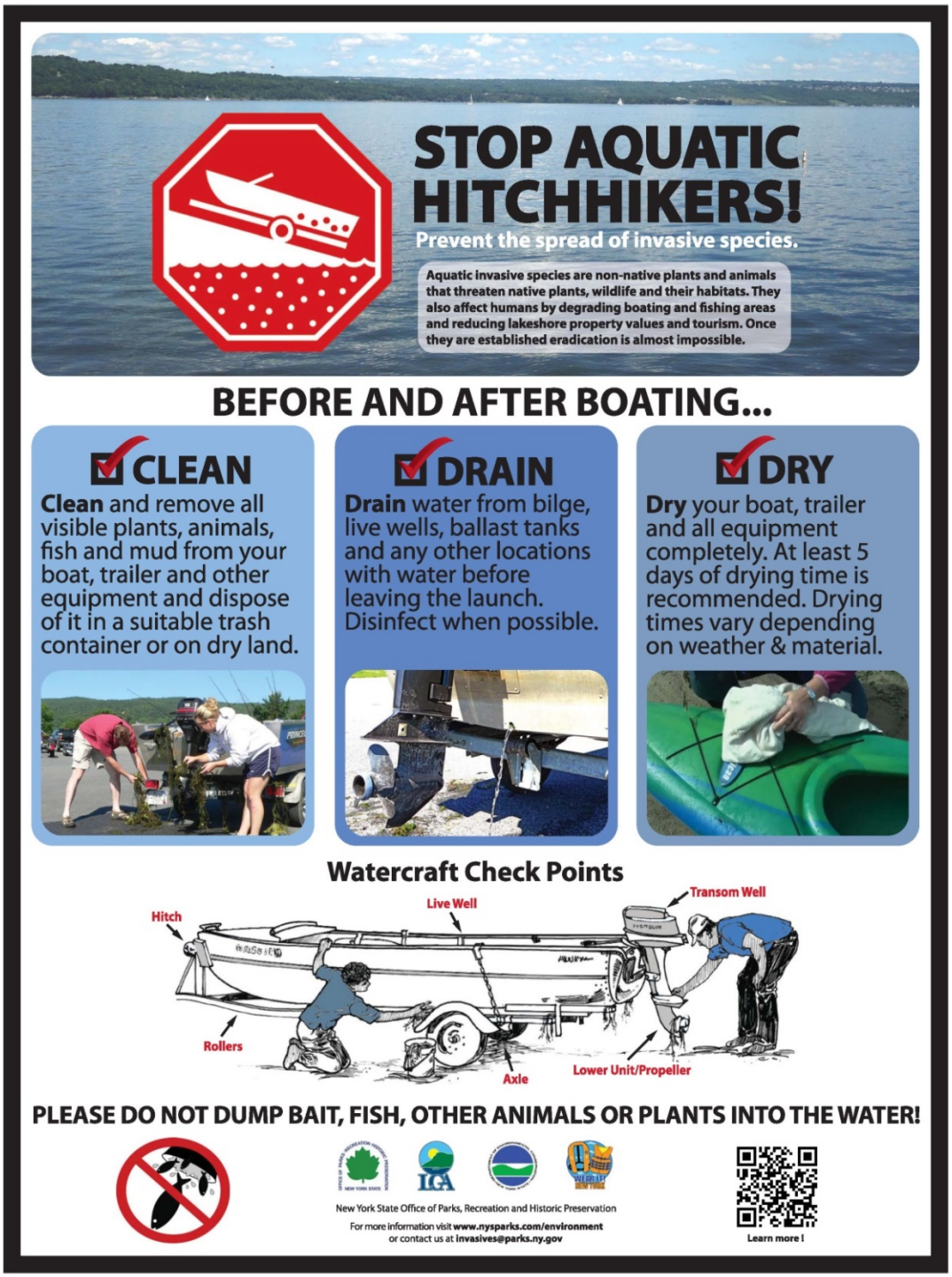
White, E., and Lundgren, J. 2013. Taconic State Park BioBlitz, May 4-5, 2013. New York Natural Heritage Program. 625 Broadway, Albany NY.

eBird. 2016. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: http://www.ebird.org. (Accessed: October 28, 2016).

## Date Designated:

## *Appendix D*

## *Clean, Drain, and Dry Program for Aquatic Invasives*



# *Appendix E*

## *Cultural Resource Review – Categorical Exclusion*

Exempt Activities under Section 14.09 for OPRHP

The following work items are exempt from Division for Historic Preservation (DHP) review. List items marked with an asterisk "*" are NOT exempted when work is being undertaken on a State Historic Site or State Historic Park designated property.

I. SITE WORK

1. Repaving/resurfacing of existing paved areas, e.g. parking areas, sidewalks, tennis courts, outdoor basketball courts where the proposed work does not exceed the depth of previous undisturbed soil.

2. Repaving/resurfacing of roads, streets, alleys, ramps, and driveways where no change in width, curb location, surface material, depth of roadbed, vertical alignment (that is, height or crown of the road surface), or drainage is to occur.

3. Installation of lighting (including new underground conduit and Conductors) and minor drainage work where no other new excavation work is needed.*

4. Repair/replacement-in-kind of exterior steps, platforms, stairs, ramps, and area ways.*

5. Installation of exterior freestanding signage and kiosks.*

6. Repair and replacement of site installed mechanical, electrical, and plumbing equipment (e.g. an emergency generator or air cooled condenser) on the condition that no trim or architectural features are altered and that no ground disturbing work is proposed that will exceed the depth and width of previous undisturbed soil.*

7. Installation of site mechanical, electrical, and plumbing equipment (e.g. an emergency generator or air cooled condenser) on the conditions that no trim or architectural features are altered and that it is behind the building or not visible from the street and that no ground disturbing work is proposed that will exceed the depth of previously disturbed soil.*

8. Repair and replacement of in-ground utilities in existing utility trenches.

9. Excavation or other ground disturbance impacting areas 10 ft or less from existing c.1900 or later structures.*

10. Repair and replacement of play equipment and safety surfacing.

11. Maintenance and repair of existing landscape features, including plantings, trees, and shrubs provided that any new vegetation is a replacement in kind of existing historic planting in regard to location and species and the work does not threaten to damage historic resources.

12. Maintenance and repair of existing landscape features, fences, retaining walls and walkways, provided that such maintenance is limited to repairs using matching materials and retains as much original material as possible.

13. Repair/replacement of existing curbing or sidewalks in kind in the same location with no removal of trees or damage to tree root systems.

14. Maintenance, repair, replacement or new installation of street lights and traffic signs, provided that such maintenance and repair is limited to repairs using matching material and retains as much original material as possible.

ALSO SEE SECTION VI – ARCHAEOLOGY

II. EXTERIOR

1. Repair/ replacement of flat roofs, roof hatches, roof drains, and rooftop mechanical, electrical, and plumbing equipment.*

2. Repair/ replacement-in-kind of the surface materials on pitched roofs.*

3. Masonry cleaning will be appropriate on the condition that it follows the Secretary of the Interior's Standards for Rehabilitation and the National Park ServiceTechnical Guidelines.[1]*

4. Masonry repair and repointing on up to 50% of a building on the condition that it follows the Secretary of the Interior's Standards for Rehabilitation and the National Park Service Technical Guidelines.*

5. Repair of masonry foundations, walls, or chimneys by repointing using matching mortar composition, color, joint width and profile, only when mortar is missing or deteriorated.*

6. Replacement of non-original windows that were installed post-1960 with windows that either match the configuration and proportions of historic windows, the current configuration, or have one-over-one sash. If the replacement windows have muntins, they should ideally be either true divided lights or a three part grid system which includes an interior, exterior, and a spacer bar. If this cannot be done, an exterior applied muntin is acceptable. However, muntins applied only to the interior or placed only between the double insulated glass panels are not acceptable.*

7. Installation or replacement of video surveillance cameras, fire alarm systems, and security systems on the condition that no trim or architectural features are altered and that the fixtures are not mounted directly to masonry.*

8. Installation or replacement of lightning protection on the condition that no architectural features are altered.

9. Repair/ replacement in-kind of exterior door hardware.*

10. Repair/ replacement-in-kind of non-decorative exterior hollow metal doors.

11. Repainting of exterior masonry.

12. Exterior scraping with non-destructive means (hand scraping, hand sanding, and chemical strippers) and painting of stucco, wooden siding, features, and trim that historically were painted. Destructive surface preparation treatments, including, but not limited to water blasting and sandblasting, are not allowed under any circumstance. The use of silicone sealers or such other coatings defined as "waterproof' or "water-repellent" are not allowed under any circumstance.*

13. Installation or replacement of exterior connections for sprinkler and standpipe systems on the condition that no trim or architectural features are altered.*

14. Repair or replacement in kind of asphalt, fiberglass shingle, clay tile, slate or metal roofs; replacement of structural roof components or decking; and replacement of a flat roof not visible from a public right-of-way. Where feasible roofs can be replaced using salvaged materials, or replaced in whole using new materials matching the historic in color, texture, size, profile and all other characteristics. Use of replacement materials not in-kind is not exempt.*

15. Retention and repair of existing windows. If windows are proposed for replacement, please submit project to DHP.*

16. Minor repair of porches, cornices, siding, masonry, exterior stucco or other historic exterior surface materials, doors, balustrades, stairs, or other trim. Any new material shall match the existing features in material, design, color, finish (paint, stain, etc.) texture and other visual and physical qualities.*

17. Repair or replacement of gutters and downspouts with identical materials and design.

18. Rebuilding of existing wheelchair ramps if the ramp is rebuilt exactly as it exists and will not perpetuate damage to a historic resource. Any new location must be reviewed.

19. Repair of foundations and structural features of the building when the action does not require the removal or alteration of historic architectural building fabric or the introduction of new kinds of materials not already present.*

[1] All references to the Secretary of the Interior's Standards for Rehabilitation and the National Park Service

20. Installing water, natural gas, and electric meters on the side or back of a building (non- primary/public elevation) so that they are not readily visible.

## III. INTERIOR

1. Repair and replacement-in-kind of ceilings.*

2. Installation or replacement of video surveillance cameras, fire alarm systems, and security systems on the condition that no trim or architectural features are altered.[2]*

3. Installation or replacement of data (computer network, power) systems on the condition that no trim or architectural features are altered. Note that surface raceways may be included in this installation.*

4. Installation or replacement of switchboards, motor control centers, panel boards, conductors and conduit, transformers, generators, and power receptacles with the condition that no trim or architectural features are altered or obscured.

5. Installation or replacement of sprinkler and standpipe systems on the condition that no trim or architectural features are altered. Note that exterior fire department connections must be visible and accessible to fire department personnel.*

6. Repair and refinishing of wood floors.*

7. Replacement of toilet room fixtures; partitions; floor; wall or ceiling surfaces.

8. Replacement of plumbing fixtures.

9. Installation or replacement of lighting fixtures and their controls such as switching and/or occupancy sensors, on the condition that no trim or architectural features are altered.*

10. Installation or replacement of kitchen equipment on the condition that no trim or architectural features or trim are altered.

11. Elevator retrofits where only modern elements are replaced.

12. Interior repainting of previously (modern) painted surfaces.*

13. Repair, replacement, or installation of electrical, plumbing; and life-safety systems, where no structural or decorative feature alteration is involved and where new outlets or vents are finished to match the surrounding wall. Where possible, new electrical outlets shall be installed in conjunction with new wiring inside walls, rather than running wire mould on the surface of the wall.*

14. Provided that the DHP has concurred that they lack historic integrity, any changes to kitchens, bathrooms, or basement spaces in historic properties, as long as such changes are not visible from and do not detract from the significant exterior or interior historic character-defining elements in areas other than the kitchen, bathroom, or basement.

This includes installation of new kitchen cabinets and countertops and installation of new bathroom fixtures as long as no window openings or doors are altered.

15. Installation of insulation in floors, attics, and openings and installation in side walls from the interior with an appropriate vapor barrier. For exterior walls and ceilings, this is typically on the "warm" side (interior wall). For flooring where crawl spaces are the underlying areas, this should be on the "cold side" (below the insulation, above open ground). In locations where blown-in insulation is the optimal or only possible method of installation, an equivalent vapor barrier shall be created by assuring that the interior wall surfaces are covered with an impermeable paint layer. Two layers of oil base paint or one layer of impermeable latex paint constitute an acceptable vapor barrier. The paint layer must cover all interior surfaces adjacent to the newly installed wall insulation. Special attention shall be given to rooms that are

[2] With the exception or wireless systems that place receivers in non-historic or minor spaces such as basement, attic or service areas.

major sources of interior moisture--laundry rooms, bathrooms and kitchens. Changes to the finish of historically unpainted trim and wood elements are not exempt.*

16. Repair of flat, non-decorated interior walls and ceilings by patching plaster where possible. When plaster repairs are not feasible, repairing with a smooth finish drywall is allowed provided that the historic trim/wall relationship is maintained and the new surface lies in the same plane as the original.*

17. Replacement of trim work if and only if sections are missing or deteriorated beyond repair and will be, replaced in kind. Where new wall and ceiling surfaces are installed or where wholesale replacement is needed, new trim should match the historic in general scale and profile. New trim may be built up of stock materials if appropriate.*

18. Installation of standard light fixtures to replace missing or broken interior and exterior lighting, fixtures. Where "public" spaces within buildings (entryways, lobbies, dining rooms, function rooms) may have had or can accept more elaborate or "period" fixtures, such fixtures will be appropriate in scale, material and overall appearance, and where possible, be based on historic documentation.*

19. Lead-based paint and asbestos abatement activities, such as cleaning and vacuuming, that does not involve removal or alteration of structural, architectural, or decorative features.*

20. Control of insects, rodents, or other pests when the method does not physically or visibly impact the historic fabric of the building.

## IV. MECHANICAL SYSTEMS, ELECTRICAL SYSTEMS, AND PLUMBING SYSTEMS

1. Installation and replacement of heating ventilation and cooling systems on the condition that no trim or architectural features are altered. Note that ductwork visible in areas other than utilitarian basement areas should be reviewed by DHP.*

2. Installation of backflow preventers, water mains, switch gear upgrades, new gas services, and other main utility upgrades. This includes gas pipe runs within the building and exterior runs.

3. Installation, repair, and replacement of automatic HVAC control systems on the condition that no trim or architectural features are altered.

4. All other mechanical, electrical & plumbing work in boiler rooms, fan rooms, utility rooms, storage rooms and custodial spaces on the condition that no trim or architectural features are altered.*

5. Installation or replacement of mechanical, plumbing, and electrical distribution equipment on the condition that no trim or architectural features are altered.*

**Note:** Penetrations greater than 6" in diameter through walls or floors or wall removal for pipe or duct removal/installation should be reviewed by DHP.

## V. HEALTH & SAFETY HAZARDS

1. Removal of asbestos containing materials (ACM), e.g., floor tile, insulation, glazing putty, lead based paint material, or PCB containing materials, e.g., PCB containing caulk.*

2. Installation or replacement of emergency egress lighting systems and exiting signage with the condition that no trim or architectural features are altered.

3. Emergency removal or repair in kind of masonry cracks and/or falling masonry elements.*

4. Removal of falling plaster walls and ceilings and replacement-in-kind or with gypsum board on the condition that no trim or architectural features are altered.*

## VI. ARCHAEOLOGY

The following project activities are exempt from Office of Parks, Recreation and Historic Preservation/State Historic Preservation Office (SHPO) consultation and review because it has been determined that they will not likely change the quality of historic resources provided the following conditions are met:

1. The proposed activity is a stand-alone project; and

2. The proposed activity does not include and is not located in or contiguous to any historic or archaeological resource 50 years of age or older; nor listed on the State or National Register of Historic Places; nor is it a National Historic Landmark (e.g., historic structures, foundations, and out buildings, archaeological sites; historic gardens; historic viewsheds and cultural landscapes); and

3. The proposed project must be limited to one of the activities listed below:

   a. In kind bridge repair or replacement involving the same abutment.

   b. In kind repair/replacement of below grade utilities such as septic systems, water lines, electric lines and fuel supply lines within the same utility trench.

   c. In kind repair/replacement of existing septic systems, storm drainage, or fuel storage where significant site features, such as mature vegetation, are not impacted.

   d. Trail construction on slopes greater than 12% and trail maintenance where no change in width, depth, vertical alignment, or drainage is to occur.

   e. In kind culvert replacement.

   f. Repaving or re-grading of roadways or pathways where no change in width, surface material, depth, vertical alignment, or drainage is to occur.

   g. Repair of erosional issues/washouts due to flooding within 10 ft of the washout.

   h. Removal of root balls from downed trees.

   i. Removal of invasive species that does not entail grubbing or grading.

   j. In kind repair/replacement of existing curbing or sidewalks.

   k. Planting shrubs when excavation will not exceed 2 ft in diameter.

   l. Digging post holes for signs and fences that will not exceed 2 ft in diameter.

   m. Environmental cleanup (petroleum spills, etc.) where the excavation will not exceed .25 acres.

   n. Excavation/new construction will not exceed depth of prior, documented ground disturbance.

**Note 1**: If during the course of construction any artifacts, archaeological features, or historic remains are discovered, work in the vicinity of the discovery must be stopped immediately and the Archaeological Unit of the DHP must be contacted for further guidance.

**Note 2**: Human Remains Discovery Protocol (September 2012).

In the event that human remains are encountered during construction or archaeological investigations, the following protocol shall be implemented:

- At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.

- Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

- The county coroner/medical examiner, local law enforcement, the Regional Capital Facility Manager, APO and the DHP Native American Liaison will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological.

- If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Avoidance is the preferred option. The Regional Capital Facility Manager and the DHP Native American Liaison will consult with the appropriate Indian Nations to develop a plan of action.

Although not a requirement off of federal lands, OPRHP will follow a process that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.

- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Avoidance is the preferred option. The Regional Capital Facility Manager and the DHP Native American Liaison will consult with appropriate parties to develop a plan of action.

**Note 3**: Indian Nation Consultation Recommendations

The OPRHP has developed these recommendations as a process for incorporating the knowledge and concerns of Indian Tribes (Indian Nations)[3] into the OPRHP Section 14.09 review processes.

The Division for Historic Preservation (DHP) Indian Nation Liaison in cooperation with the Regional Capital Facility Manager will generally begin consultation with interested Indian Nations when an undertaking under Section 14.09 identifies a Native American habitation site[4] or burial site within or immediately adjacent to a *project impact area*. Identification generally occurs as part of the Phase I archaeological investigation. Consultation means the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the Section 14.09 process.

As part of this consultation process, the interested Indian Nations will receive a copy of all materials submitted to the DHP and all DHP review letters. The Indian Nation Liaison in cooperation with the Regional Capital Facility Manager will initiate follow- up discussions on the project and its impacts to Native American sites through telephone calls, emails or meetings. Indian Nations will be encouraged to send their oral or written comments on the project to the Indian Nation Liaison and the Regional Capital Facility Manager. Consultation will continue until the Section 14.09 process is complete.

[3] Federally Recognized Indian Nations Whose Ancestral Lands Lie within the Present Boundaries of New York State: Cayuga Nation of New York; Delaware Nation of Oklahoma; Mohawk Nation of New York (while the Mohawk Nation is not federally recognized, the Mohawk Nation Council of Chiefs is the traditional government of the Mohawk people and for this reason the DHP recommends consultation with this Nation); Oneida Indian Nation of New York; Oneida Tribe of Indians of Wisconsin; Onondaga Nation of New York; Seneca-Cayuga Tribe of Oklahoma; Seneca Nation of Indians of New York; Saint Regis Mohawk Tribe of New York; Shinnecock Nation of New York; Stockbridge-Munsee Community Band of Mohicans of Wisconsin; Tonawanda Seneca Nation of New York; Tuscarora Indian Nation of New York.

[4] "Habitation Site" is viewed by DHP as an area where Native Americans may have lived on a daily basis for months or years. These areas may be associated with burial sites. Often identified in archaeological literature as a village or large base camp, the habitation site usually has unique types or quantities of artifacts. Pottery vessel fragments or features such as fire pits, storage pits, trash disposal pits and house remains usually indicate the presence of a habitation site.

# *Appendix F: Taconic State Park Determination of Eligibility and Property List*

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

## RESOURCE EVALUATION

DATE: April 28, 2017 STAFF: Kathy Howe

PROPERTY: Taconic State Park – Copake Falls Area and Rudd Pond Area

LOCATIONS: Copake Falls, Columbia County and North East, Dutchess County

USN: 02107.000070 and 02710.000045

I. ☐ Property is individually listed on SR/NR:
name of listing:
☐ Property is a contributing component of a SR/NR district:
name of district:

II. ☒ Property meets eligibility criteria.
☐ Property contributes to a district which appears to meet eligibility criteria.

**Criteria for Inclusion in the National Register:**

A. ☒ Associated with events that have made a significant contribution to the broad patterns of our history;

B. ☐ Associated with the lives of persons significant in our past;

C. ☒ Embodies the distinctive characteristics of a type, period or method of construction; or represents the work of a master; or possess high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction;

D. ☐ Have yielded, or may be likely to yield information important in prehistory or history.

**STATEMENT OF SIGNIFICANCE**

Taconic State Park (TSP), a 6,183 acre park of three discontiguous tracts, is located along 16 miles of the Taconic Mountain Range, sharing a border with Massachusetts and Connecticut. From north to south, portions of the park are within the towns of Hillsdale, Copake, and Ancram of Columbia County, and in the town of North East, Dutchess County. There are two developed areas in the park which are the focus of this National Register eligibility determination: the Copake Falls area to the north in the hamlet of Copake Falls and the Rudd Pond area to the south in the Town of North East.

The built environment in TSP represents multiple layers of historical themes and periods from the mid-nineteenth century iron mine industry to state park development of the first

half of the twentieth century. The park meets Criterion A in the areas of industry, social history, conservation, and recreation and Criterion C for the vernacular building types associated with a former iron operation, a former church and group camp, and CCC-built park resources. The period of significance encompasses over 100 years of diverse development from 1845 to 1950. Key dates and historical trends during this period are:

- Ca. 1845 – establishment of the Copake Iron Works by Lemuel Pomeroy II (Copake Falls area)
- Ca. 1860s – NYC-based Church of Heavenly Rest establishes a summer camp grounds known as "The Rest" on land donated by the Pomeroy family (Copake Falls area; south of the iron works)
- 1920s – The NYC-based social welfare organization Greenwich House begins using "The Rest" for a summer camp and cabins are built by the 1930s
- 1924 –Francis and Ella Masters donate land to New York State as the first parcel of what was to become Taconic State Park
- 1927 – Taconic State Park opened to the public on approximately 2,600 acres at the Copake Falls area including the former iron works establishment
- 1928 – Rudd Pond area in the park's southern section is acquired by the state
- 1931 – Rudd Pond area opens to the public
- 1933 –Civilian Conservation Corps begins landscape/infrastructure work and new construction of cabins, comfort stations, etc.
- 1948 – TSP acquires the "The Rest" property and cabins

TSP is unique within the Taconic park region in that it is the only park that is not physically connected to the Taconic State Parkway. The history and development of the park represent the political feud between Robert Moses, chair of the State Council of Parks (SCP) who was pushing the concept of a Tri-State Park, modeled after the Palisades Interstate Park, and Franklin D. Roosevelt, then chairman of the Taconic State Park Commission (TSPC), who rallied for the construction of the Taconic State Parkway. Moses envisioned TSP as New York's component of the proposed 40,000-acre Tri-State Park, an interstate venture including land in New York, Massachusetts, and Connecticut. As New York State had authorized purchase of more than 2,000 acres for Taconic State Park before the TSPC was established, the council anticipated that the new commission would make this park its top priority. Indeed, work at Taconic State Park (which opened in 1927) initially dominated commission activity, with crews clearing roads and trails, developing campsites and picnic areas, and building a bathhouse, a fire observation tower, and a keeper's cottage.

The TSPC's independence brought it into conflict with Moses, a powerful adversary who repeatedly slashed the commission's funding, delaying parkway construction for more than four years. In 1927, after Taconic received an appropriation of $12,500, far less

than any other region, FDR sought Governor Alfred E. Smith's intervention, arguing that "unlike many of the other state Park Commissions, our principal function is the acquisition of the parkway…." The governor, unyielding, informed FDR that his priority was Taconic State Park and advised him to scale back the parkway, which he [Smith] "never thought of…as extending all the way up to Columbia County." FDR countered that "…none of the Commissioners, including myself, would have accepted office if our objective had been merely the development of the Taconic State Park and of another in Putnam County" and asserting that without funding for its entire program, the commission "sees no reason for its continued existence." [1]

The commission's determination proved unshakable, and its fortunes began to change after FDR was elected governor in 1928.[2] In 1930, having secured $400,000 for parkway development, the TSPC reported that, "recognizing the importance and value of the parkway project," it had given precedence to parkway construction for that year.[3] Work at Taconic State Park, although proceeding, never again commanded the same attention.

## Copake Falls Area

The Copake Falls area (USN 02107.000070) is located immediately to the east of the hamlet of Copake Falls. This area is historically and architecturally significant for its association with the local mining industry and as a representative example of a New York state park largely developed during the 1930s using relief funds and labor. The adaptive reuse of pre-park buildings, other than former residences, is an unusual departure from the norm of state park acquisition and development in the 1930s, but the buildings still recall their former uses as iron works service buildings and millworker's housing.

The State/National Registers' listed Copake Iron Works Historic District along Bash Bish Brook is located within the core of the Copake Falls area. The historic district includes buildings, structures, and features of this former iron extraction and processing operation that was established in the mid-1840s by Lemuel Pomeroy II, brought to its fullest development later in the nineteenth century by the Miles family, and acquired by New York State in the late 1920s in association with the creation of Taconic State Park. The historic district includes the masonry remains of the ca. 1872 charcoal blast furnace, Ore Pit Pond, three modestly-scaled workers' houses (now used as park cabins), and other buildings and structures that tell the story of this iron work operation. The district also retains a high degree of potential to provide archaeological data from the iron works, as the complex has remained substantially undisturbed by modern

[1] Letters, FDR to Alfred E. Smith, 12.14.27; Smith to FDR, 1.23.28; FDR to Smith 1.30.28.
[2] Roosevelt resigned from the TSPC after his election as governor.
[3] New York State Conservation Department, *Annual Report*, 1930.

development. The previously SR/NR listed Gothic Revival-style Church of St. John in the Wilderness and its picturesque rectory are also included within the district boundaries. These buildings speak to the social dynamic within the community during the second half of the nineteenth century.

Despite the extensive damage and deforestation brought on by the iron mining industry, the natural beauty of the Taconic Mountains and their valleys filled with streams and waterfalls attracted visitors and vacationers from the second half of the nineteenth century. Many tourists flocked to see the natural beauty of the area especially nearby Bash Bish Falls located east, just across the Massachusetts state border. In the 1860s, the New York City based Church of Heavenly Rest, aka The Rest, established a camp in Copake Falls, later adding cabins to the camp, and renting the grounds to the Greenwich House of NYC in the 1920s. The Greenwich Camp hosted underprivileged children from NYC until 1991. In 1948, New York State Parks bought the parcel of The Rest, including the Greenwich Cottages. The cottages are simple, one-story rectangular-plan frame buildings with low-pitched hipped roofs and novelty siding. Built by the Church of the Heavenly Rest in the mid-1930s, these buildings largely retain their period integrity although some windows and doors have been replaced. Of special interested is the centrally located U-plan mess hall/recreation building functionally designed with the kitchen in the west wing, the dining hall in the center, and the recreation hall in the east wing.

Beginning in 1933, the park underwent renovation and expansion by the Civilian Conservation Corps (CCC). Camp #3 Copake was established in Copake Falls, employing local men as foremen, all of them former employees of the Commission and the Park. CCC-built resources at the Copake Falls area of the park include the five Bash Bish cabins and showerhouse with waney-edge siding, rustic-style stone comfort stations, and landscaping work. The CCC also established picnic areas and built picnic shelters, built trails, cleared brush along roads, excavated into hillsides to enlarge parking areas, and established evergreen plantations in TSP.

**Rudd Pond Area**

The Rudd Pond area (USN 02710.000045) is along Rudd Drive, off of Rudd Pond Road/ Rt. 62 in the Town of North East. Rudd Pond was named after Major Bezaleel Rudd (1751-1846), an officer in the Continental Army who settled and farmed the Rudd Pond area with his family. The Rudd pond area in the Park's southern section was acquired by the state in 1928 and opened to the public in 1931. The development here is largely located along the east side of the pond and dates from the CCC era and later. Of special interest at Rudd Pond is the gable-roofed log boathouse built in 1931 using State Emergency Relief funds. This was the first building constructed at the site as part of the Rudd Pond area development. It was originally used as a boathouse with a large

open space and stone fireplace at the first floor and a caretaker's apartment on the second floor. Today this rare log boathouse survives but is in deteriorated condition. The 1940 comfort station and the 1950 recreation and shower building at Rudd Pond display the waney-edge rustic siding that was popularized earlier by the CCC.

**TSP Today**

The demise of the Tri-State Park idea is the reason for today's somewhat fragmented tracts of land where NY, MA and CT meet, some parcels owned by the three states, some by several conservation organizations and conservation-minded private entities. New York State continues its efforts to connect fragmented tracts of TSP and to extend the Taconic trail system. The most recent additions to the park were a 250 acre land purchase in 2008 and the purchase of development rights in 2015 over approx. 800 acres of private land spanning Washburn Mountain. Both transactions closed significant gaps in Taconic State Park's Dutchess and Columbia County portions, the first near the newly extended South Taconic Trail, the other connecting the Park's Copake Falls area with Alander Mountain.

For more detailed information on the history of the park see the Taconic State Park EIS, 2017.

A list of historic and non-historic properties within the boundary of the park is attached to this park-wide determination of eligibility.

## Taconic State Park – Historic Resources List

| USN | Name | Building No. | Details | MCD | Status |
|---|---|---|---|---|---|
| 02107.000003 | Church of St. John in the Wilderness | 04BR13504700 | NY Route 344 | Copake | Individual-Listed |
| 02107.000007 | Bathhouse | 04BR13503200 | Off Route 344 | Copake | Eligible |
| 02107.000008 | Isaac Chesbrough House/Park Manager's House | 04BR13500100 | 33 Valley View Road | Copake | District-Listed |
| 02107.000009 | Triple Cabin - Maxfield Cabin | 04BR13504100 | IW Route 344 | Copake | District-Listed |
| 02107.000010 | Duplex Cabin 3 | 04BR13504000 | IW Cabin 3 Route 344 | Copake | District-Listed |
| 02107.000012 | Worker's Double House/Link House | 04BR13500800 | Valley View Road | Copake | District-Listed |
| 02107.000014 | Shower/Laundry Building | 04BR13502200 | Valley View Road | Copake | Eligible |
| 02107.000015 | Kitchen/Mess/Recreation Hall | 04BR13502800 | Valley View Road | Copake | Eligible |
| 02107.000016 | Camp Director's Cottage | 04BR13501700 | Valley View Road | Copake | Eligible |
| 02107.000017 | Coldwater/Bash Bish Shower Building | 04BR13504300 | Off Route 344 | Copake | Eligible |
| 02107.000018 | Cold Water/Bash Bish Cabin 1 | 04BR13504400 | Off Route 344 | Copake | Eligible |
| 02107.000019 | Cold Water/ Bash Bish Cabin 2 | 04BR13504500 | Off Route 344 | Copake | Eligible |
| 02107.000020 | Cold Water/Bash Bish Cabin 3 | 04BR13504600 | Off Route 344 | Copake | Eligible |
| 02107.000021 | Cold Water/Bash Bish Cabin 4 | 04BR13504700 | Off Route 344 | Copake | Eligible |
| 02107.000022 | Cold Water/Bash Bish Cabin 5 | 04BR13504800 | Off Route 344 | Copake | Eligible |
| 02107.000023 | Main Pump House | 04BR13500600 | Valley View Road | Copake | Listed |
| 02107.000023 | Main Pump House | 04BR13500600 | Valley View Road | Copake | District-Listed |
| 02107.000024 | Comfort Station A | 04BR13503600 | Off Route 344 | Copake | Eligible |
| 02107.000025 | Comfort Station B | 04BR13503700 | OFF RTE 344 | Copake | Eligible |
| 02107.000026 | Comfort Station C | 04BR13503800 | Off Route 344 | Copake | Eligible |
| 02107.000027 | Greenwich Shower House/Comfort Station | 04BR13502600 | Valley View Road | Copake | Eligible |
| 02107.000028 | Comfort Station | 04BR13502000 | Valley View Road | Copake | Eligible |
| 02107.000029 | Picnic Pavillion | 04BR13506200 | Route 344 | Copake | Non-Historic |
| 02107.000030 | Dormitory-GH3 | 04BR13501800 | Valley View Road | Copake | Eligible |
| 02107.000031 | Dormitory - GH4 | 04BR13501900 | Valley View Road | Copake | Eligible |
| 02107.000032 | Dormitory - GH6 | 04BR13502300 | Valley View Road | Copake | Eligible |
| 02107.000033 | Dormitory | 04BR13502400 | Valley View Road | Copake | Eligible |
| 02107.000034 | Barn | 04BR13501600 | Valley View Road | Copake | Eligible |
| 02107.000035 | Ice House/Storage Building | 04BR13502500 | Valley View Road | Copake | Eligible |
| 02107.000036 | Garage | 04BR13501400 | Valley View Road | Copake | Eligible |
| 02107.000037 | Dormitory-GH7 | 04BR13502700 | Valley View Road | Copake | Eligible |
| 02107.000038 | Camp Pump House | 04BR13501200 | Route 344 | Copake | Non-Historic |
| 02107.000039 | H/C Access Cottage | 04BR13502100 | Valley View Road | Copake | Eligible |
| 02107.000040 | H/C Access Cabin-G1 | 04BR13502900 | Valley View Road | Copake | Eligible |

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|---|---|---|---|---|---|
| 02107.000042 | Copake Iron Works Blast Furnace | 04BR13505400 | 253 Rt 344 | Copake | District-Listed |
| 02107.000043 | Powder Storage Building | 04BR13506300 | Valley View Road | Copake | District-Listed |
| 02107.000044 | Blowing Engine House and Machine/Pattern Shop (current museum / visitor center) | 04BR13500500 | Valley View Rd | Copake | District-Listed |
| 02107.000064 | Copake Iron Works Historic District | | | Copake | District-Listed |
| 02107.000068 | Link Cabin | | | Copake | District-Listed |
| 02107.000069 | Duplex Cabin 2 | 04BR13503900 | IW Cabin 2 Route 344 | Copake | District-Listed |
| 02107.000072 | Manager's One Bay Garage | 04BR13500300 | Valley View Road | Copake | District-Listed |
| 02107.000073 | Chesbrough House Garage | 04BR13500200 | Valley View Road | Copake | District-Listed |
| 02107.000074 | Iron Worker's Office/First Aid Station | 04BR00400 | Valley View Road | Copake | District-Listed |
| 02107.000076 | Storage Shed | 04BR13500700 | Valley View Road | Copake | District-Listed |
| 02107.000077 | Top House/Maintenance Garage | 04BR13500900 | So. of Valley View Rd | Copake | District-Listed |
| 02107.000078 | St. John's Parsonage | | | | Individual-Listed |
| 02107.000082 | Iron Furnace Shelter Building | 04BR13506100 | Valley View Road | Copake | District-Listed |
| 02107.000084 | Ranger Station | 04BR13503100 | Off Route 344 | Copake | Eligible |
| 02107.000085 | Comfort Station/Bathhouse | 04BR13503400 | Route 344 | Copake | Non-Historic |
| 02107.000093 | Nature Center Rear Storage | 04BR13505000 | Off Route 344 | Copake | Eligible |
| 02107.000094 | Nature Center (Front) | 04BR13505100 | Off Route 344 | Copake | Eligible |
| 02107.000095 | Park Office/ Welcome Center | 04BR13506000 | Route 344 | Copake | Eligible |
| 02107.000096 | Bish Bash Pump House | | Off Route 344 | Copake | Eligible |
| 02710.000027 | Recreation/Shower Building | (04BR31000600) | Rudd Drive | Northeast | Eligible |
| 02710.000028 | Bathhouse | (04BR31000400) | Rudd Drive | Northeast | Eligible |
| 02710.000029 | Old Barn | | CR 62 | Northeast | Not Eligible |
| 02710.000030 | Maintenance Building | (04BR31000500) | Rudd Drive | Northeast | Eligible |
| 02710.000031 | Comfort Station | (04BR31000700) | Rudd Drive | Northeast | Eligible |
| 02710.000037 | Comfort Station | (04BR31000300) | 59 Rudd Drive | Millerton | Eligible |
| 02710.000038 | Park Manager's Residence | (04BR31000100) | Rudd Drive | Northeast | Eligible |
| 02710.000039 | Boat Rental/Visitor Contact Station | (04BR31000200) | Rudd Drive | Northeast | Eligible |
| 02710.000040 | Water Tank | (04BR31000900) | Rudd Drive | Northeast | Eligible |
| 02710.000041 | Park Office Trailer | (04BR31000800) | Rudd Drive | Northeast | Eligible |
| 02710.000042 | Valve House | (04BR31000010) | Rudd Drive | Northeast | Eligible |
| 02710.000043 | Pump House | (04BR31001600) | Rudd Drive | Northeast | Eligible |
| 02710.000044 | Storage Shed | | Rudd Drive | Northeast | Eligible |