Final Trails Plan

for

Saratoga Spa State Park

City of Saratoga Springs and Town of Malta, Saratoga County

Prepared by The New York State Office of Parks, Recreation and Historic Preservation

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I. Introduction

Saratoga Spa State Park is a 2,500 acre park located in Saratoga County, New York. The Park is situated in a suburban to urban setting and is noted for its diverse recreational, natural and cultural resources. The park offers a multitude of traditional recreation opportunities in addition to the nationally-known Saratoga Performing Arts Center, the Spa Little Theater, the National Museum of Dance, the Saratoga Automobile Museum, and the Gideon Putnam Resort and Spa.

The park boasts a multitude of cultural and environmental resources. The presence of mineral springs provided the impetus for development of drinking fountains, spas and bathhouses in the northern section of the park, which has been designated as a National Historic Landmark. The remainder of the park resides in a more natural setting with picnicking and hiking near environmental resources such as the Kayaderosseras Creek and Geyser Brook that run through and along the park boundary, federally and state regulated wetlands that cover almost 700 acres of the parkland constituting four different ecological community types, a variety of wildlife including two threatened and endangered butterfly species, and much more.

As part of the master planning process, it was identified that a formal trail system needs to be developed for the park and its patrons. There are over 18 miles of trails at Saratoga Spa State Park ranging from single track to paved multi-use trails and including many social paths. Currently, in the main area of the park (primary use area) there is minimal trail signage and no designated trail system. A possible result of the lack of signage is the myriad of social trails that has developed over time. As one of the most visited parks in the Saratoga-Capital Park Region, a developed trail system is appropriate to accommodate the increased numbers of visitors and their recreational needs. Because of its setting, the park is used by patrons for many purposes including hiking, nature interpretation, mountain biking, in-line skating, horseback riding, cross-country running, geocaching, snowshoeing, cross-country skiing and getting to and from Saratoga Performing Arts Center and other park venues.

Providing recreational facilities and programs that are compatible with the park's natural, cultural, and physical resources is a goal identified in the Master Plan. Public comments regarding trails and recreation in the park were received at both a regional trails workshop held in April 2008 and at a public information meeting held in June 2008 as part of the master planning process. These comments have helped to guide the development of this trails plan.

This trails plan is provided as a supporting document to the park Master Plan. It provides guidance for the park to develop a more cohesive trails network. The plan describes the existing trails system through inventory and assessments, provides general trail maintenance recommendations, as well as additional trail opportunities and potential connections for the park to explore. The plan provides an update on interpretive programs related to trails offered at the park, as well as coordination efforts with friends and user groups. Also included are sections on trail standards and an evaluation, assessment and monitoring process to be used in trail development and trail modifications.

II. Existing Trails System

Figure 1 – Existing Trails System shows the location of all trails and pathways by surface type for the entire Saratoga Spa State Park. Throughout this plan, the term `primary use area' refers to the

main area of the park consisting of the Geyser Park, Mall and Lincoln Park areas (see Figure 1). Figure 2 – Winter Ski Trails shows the locations of the four seasonal loop trails.

The following inventory list provides a description and conditions assessment for each of the existing trails or areas. The areas of the park as noted in the inventory list below are identified on Figure 1. Some trails are located on geographically separated parcels of land from the primary use area, although altogether they make up the trail system at Saratoga Spa State Park. The conditions assessment is keyed to Figure 3 – Trail Assessment Map and resulted in the following general maintenance recommendations for each trail or area.

Trails in the park do not have designated uses. The uses listed in this section represent how the trails are used currently by park patrons.

Geyser Park Area including the Orenda tufa

Trails: Many trails, unofficial and unmarked

Length: varying lengths

Uses: Hiking, Biking, Equestrian, Certified cross-country running course (5K)

Description: The trails in the Geyser Park Area are of varying length, surface, character and function. This area contains gravel, stone dust and natural surface trails. A couple of gravel roads in this area that are used for park vehicles are also used as trails. The widths of trails vary from narrow dirt paths to two car width routes. This section of the park contains many social trails or short connector paths which have developed over the years predominantly by visitors to the Saratoga Performing Arts Center (SPAC) walking from the various parking lots. There is minimal trail signage in this area of the park.

Just south of the walkway for SPAC is a natural formation called a tufa. This formation is a large mound caused by the deposition and build up of calcium carbonate from spring water over many years. There are two parallel paths located near this unique tufa formation – one natural surface path along Geyser Brook that ends underneath the walkway for SPAC; the other is paved and runs along the hillside to the west of the first path ending in a loop next to the SPAC walkway. A third natural surface path runs through the woods between Geyser Brook and the Orenda picnic area – this path is used during an annual 5 mile run.

The Wetland Overlook Trail is the only trail in this section that is signed. It provides a loop opportunity with a wooden overlook built by a local Boy Scout Troop. An interpretive panel is located at this spot. The southeast section of this trail co-aligns with a service road from the Carlsbad parking lot to the dump. There is a trail that connects the two sides of the Wetland Overlook Trail that is located on abandoned railroad and trolley alignments. This corridor is used often during interpretive programs to access a small wetland area. The old rail corridor is a proposed route for future development of a paved trail connection to the south of the park to link to the Zim Smith Trail (see Section IV.A.2. – External Connections).

Included in this area of the park is a 5-kilometer certified cross country running route (see Figure 4 – 5k Certified Cross Country Running Course) that is used by both high school and college cross country teams for training and meets. This certified running route starts and ends in the Mall Area and utilizes a combination of gravel, stone dust and natural surface trails. As this is a certified course, the park will maintain this route as open trail.

Trails in this area are currently monitored by the park's environmental education staff and maintained by the park's maintenance department.

Assessment: Some sections of trails are located along fall lines (going straight down a hill regardless of grade), have erosion issues and are unsustainable. There are several wet spots and areas of compaction along trails that need some attention. A number of culverts need to be re-set. Lack of trail signage is confusing for users.

Recommendations: Develop a maintenance plan to manage erosion issues, wet spots and compaction. Consider water management measures, closures or reroutes for unsustainable sections of trail. Section IV.A. – Trails System proposes developing a loop trail system in this area; suggested closures and re-routes are incorporated in the recommendation.

Mall Area including Saratoga Performing Arts Center (SPAC)

Trails: A number of pathways, unmarked

- Length: varying lengths
- Uses: Pedestrian pathways

Description: The primary focus of this area is a pair of formal pedestrian malls, intersecting on N/S and E/W axes. These malls form the core of the 1930's spa development and serve as the pedestrian circulation system for these buildings. Paths are typically stone dust but some are paved with asphalt. The E/W axis was interrupted in the 1960's by the extension of Roosevelt Drive and the construction of the moat and fence between the Hall of Springs and Roosevelt I. SPAC contains some asphalt pathways to facilitate pedestrian circulation during events; these pathways are open to the public at other times and are maintained by SPAC staff.

Assessment: The condition of the stone dust paths varies. Some are in need of resurfacing, some have substantial grass infiltrations, and others have been completely overgrown by grass. Many of the paths receive undue wear and tear by Park's staff vehicular use.

Recommendations: Develop a regular maintenance schedule to alleviate grass infiltrations and help delineate routes for users. Signage should be installed to direct users to appropriate pathways. Park staff should be directed to utilize appropriate routes for vehicular use for access through the park.

Note: As these pathways are used primarily for pedestrian circulation between buildings in the Mall area and at SPAC, these pathways will not be included as part of the trails system going forward in this plan.

Lincoln Park Area, including Avenue of the Pines

<u>Trails</u>: A number of trails, unmarked *Length*: varying lengths

Uses: Hiking, Biking

Description: This was one of the first areas acquired and developed into parkland. On the east side there are pedestrian circulation paths amongst the National Museum of Dance and Lincoln Bathhouse. The Pine Promenade, a portion of the original Avenue of the Pines alignment, traverses a straight line between the corner of West Fenlon Avenue and South Broadway and the crosswalk at the bend in the current Avenue of the Pines. This eight foot wide stone dust path divides this area in two along a NE/SW axis. Some fragments of original walking paths in the pine plantation to the west of the Avenue still exist. These fragments have become an informal network of social trails. This area serves as access from the adjacent residential neighborhoods into the park. There is a trail that

follows an old trolley line bordering the eastern boundaries of the residential neighborhood along Route 50. The northern section of this trail is well used as part of a connection to the original Avenue of the Pines. The southern section of this trail is not well used and is slightly overgrown. It dead ends at the golf course. Paved bicycle/pedestrian paths parallel Route 9 and the current Avenue of the Pines.

Assessment: Recent improvements to some of these trails include the repaying of a significant portion of the trail along the Avenue of the Pines and the resurfacing of a stone dust trail connecting the old trolley line path to the original Avenue of the Pines.

There are significant recreational facilities to the west of this area, such as the Railroad Run Trail and the recently-constructed YMCA. There is no bicycle and pedestrian connection to these facilities, however, due to a lack of a safe crossing of Route 50. The recreation potential of this area is generally underutilized.

Recommendations: These trails provide the northern-most link into the park's trail system with the potential for future external trail connections. Extending the trail that runs along the old trolley line would provide connectivity along the western side of the park (see Section IV.A. – Trails System). Closure of some of the social paths is warranted. Clear access routes should be signed to encourage proper use of trails in this area. Kiosks with trail maps at major entry points would be recommended in this northern section. Partner with NYS DOT and the City of Saratoga Springs to develop a safe crossing of Route 50. Develop a plan to enhance the existing lawn areas into a more cohesive park setting.

Endangered butterfly habitat area

<u>Blue Trail</u>: 1 mile, marked with blue blazes <u>Green Trail</u>: 0.16 miles, marked with green blazes <u>Orange Trail</u>: 0.15 miles, marked with orange blazes <u>Red Trail</u>: 0.07 miles, marked with red blazes <u>White Trail</u>: 0.43 miles, marked with white blazes <u>Yellow Trail</u>: 0.14 miles, marked with yellow blazes

Uses: Hiking

Description: Figure 5 – Endangered Butterfly Habitat Area shows the location of each of these trails in addition to some social trails that have developed over time along the eastern border. The white trail provides alternate access routes to the trail system from the surrounding neighborhoods. The trails are mostly flat and are generally in good condition. The trail tread is about 18 inches wide on sections along the western side of the Blue Trail. The trails wander through butterfly habitat and Karner blue and frosted elfin butterflies can be seen in June and July.

As this is a sensitive ecological area, it is particularly important that trail users in this area stay on marked trail and do not step into or trample butterfly habitat. String fencing is used to guide users and keep them on trails.

The trails are currently maintained by a Student Conservation Association Intern. Responsibilities include weekly trail monitoring and light trail work, such as putting up string fencing, replacing signs and markers and keeping trails cleared.

Assessment: Trail braiding is seen in a number of spots along the western section of the Blue Trail where the tread is only 18 inches wide. A small section of the Blue Trail tends to flood in the south-

western section. Illegal ATV use has been noted on the trails. Mounds of dirt have been created at some entrances to trails to ward off use.

Recommendations: Formalization of the trails in this section should be done including establishing an appropriate trail width. Discussion with the NYS Department of Environmental Conservation Endangered Species Unit (DEC ESU) and The US Fish and Wildlife Service (USFWS) is warranted in this case due to the sensitive nature of this area. The alignment of trails may change to accommodate the implementation of habitat restoration projects in this area. As noted in the New York Natural Heritage Program Report (2000), "Rare Species and Ecological Communities of Saratoga Spa State Park", management measures need to be taken to avoid accidentally mowing or trampling the wild blue lupine along the trails. Some maintenance of split rail fencing is required; split rail fencing is located both near the parking lot, at a fork in the blue trail in the center of the parcel and on the west side of the property. A possible reroute or construction of a boardwalk for the wet area in the south-west section of the Blue Trail should be considered. Bollards, large rocks or fencing may be used as more permanent structures in place of dirt mounds to discourage ATV use of trails. Closure of the social trails along the eastern border is warranted as part of the formalization of trails in this area.

Hemlock Trail Area

Hemlock Trail: 1.1 miles, Blue blazes

Green Loop Trail: 0.6 miles, Green blazes

White Loop Trail: 0.42 miles, White blazes

Uses: Hiking, Biking, Equestrian, Cross-country skiing, Snowshoeing

Description: Figure 6 – Hemlock Trail Area shows the location of each of these trails. The trails begin at a parking area off of Crescent Avenue. They wind through hardwood forests, successional fields, hemlock forests and wetlands. There are both federally and state regulated wetlands in this area. Significant habitats include the perched swamp white oak swamp and old-growth trees. There are four wooden bridges located along the trails. In addition to the uses noted above, these trails are used for nature appreciation and environmental education. The trails are maintained by the Park staff and volunteers.

Assessment: Due to the age of the forest, this trail is subject to many blow-downs, and logs may occasionally need to be cut and removed by maintenance staff. There are several wet spots along the trails.

The Hemlock Trail was originally designed to comply with ADA standards; it may not currently meet those standards. Equestrian use has been noted on this trail although the trail is not designated for this use; the bridges in this area were not designed to support the weight of horses. The existence of wetlands throughout this parcel may limit future trail development opportunities due to the sensitivity and wet conditions of the area. Bridges and/or boardwalks may be appropriate to traverse certain areas.

Recommendations: Develop a regular maintenance plan for the trails including removal of downed trees and overhead loose branches. Implement water management measures at wet spots. A few markers need to be mounted on more permanent posts. Repair or replace bridges as needed. Provide a trailhead kiosk at the parking area.

Driscoll Road Area

Driscoll Road Trail

Length: 0.15 miles, unmarked *Uses:* Hiking, fishing access, car top boat launch site *Description:* The trail starts at a parking area with a kiosk. There are two entries to this short trail: one is a wooden stair case and the other is an accessible switchback stone dust trail. There are two sections of boardwalk with a short natural surface section in between. The second boardwalk ends in two steps at the bank of the Kayaderosseras Creek. At this point, a small footpath to the left leads to the launch site approximately 50 feet further downstream. The launch is positioned at a point where a downed tree, no longer existing, had caused erosion to create a backwater area. The launch site consists of a natural, unimproved, relatively low-slope bank along the north bank of the Kayaderosseras Creek.

Assessment: There is no signage along Route 9 indicating the trail/launch site. The beginning of the stone dust path trail requires maintenance as it experiences some erosion from heavy rains, and vegetation is encroaching on the trail. On occasion when the creek level rises, the water carries away the steps at the very end of the boardwalk. At the time of viewing, the water level was approximately 5-8 feet below the trail surface. There is no indication that the launch site is located down the footpath, leaving one to assume that the launch is located at the steep bank.

Recommendations: Provide signage along Route 9 to indicate the site. Implement water management measures along the stone dust path to address erosion issues. Develop a routine maintenance plan for the trail. Appropriate signage is necessary at the end of the boardwalk to indicate the direction and location of the launch site as well as a sign at the launch site. Replace the two steps at the end of the boardwalk with a secure ramp. Maintain access for fishing in the creek.

Burl Trail Area

<u>Burl Trail</u>

Length: 0.7 miles – Green blazes

Uses: Hiking, canoe access

Description: The trail is mostly flat with some sections covered by wood chips. A few sections are sometimes damp or muddy. It is flanked on its south side by the Kayaderosseras Creek and on its north by a floodplain field. The field is dominated by milkweed and various grasses while the shores of the creek are lined with stinging nettle, jewelweed and Japanese knotweed. Maple, ash and willow are dominant tree species in the area. Many wetland birds such as herons and ducks frequent the area. Muskrats and white-tailed deer are also present.

The trail and surrounding area are currently used for hiking, nature appreciation and environmental education and as a car top boat launch site to the Kayaderosseras Creek.

Volunteers from the Friends of the Kayaderosseras (FOK) take responsibility for the maintenance of this trail.

Assessment: There is no obvious signage on the road indicating the trail/access point. One section of trail near the trailhead runs fairly close to an eroding bank over the creek; there are currently markers with tape across, a cone and signs asking users to stay away from the edge. The launch site, located near the parking area, consists of a natural, unimproved, low-slope bank on the outside of a 90 degree bend in the creek. Although still suitable as a launch site, this area is highly eroded, which is

typical of high velocity stream flow areas on the outside of streambed meanders. There is also running water along the western side of the access route increasing the erosion.

Recommendations: Provide signage along the roadway to indicate the entrance to the parking area. Maintenance, including mowing, weed-whacking or fire raking, is needed to keep the trail clear from overgrowth. Special attention should be given to marker posts located in the field so that they do not get overgrown or mowed over. The section of trail that runs close to the eroding bank should be rerouted away from the bank. Sections of trail with wet spots should be slightly rerouted. Additional interpretive signage is warranted in this area to highlight the environmental resources. Continue to communicate with and encourage participation of the FOK. Management of the old agricultural field and the stabilization of the Kayaderosseras Creek stream banks including the launch site of this area are included in Chapter 5 – Analysis and Alternatives of the Master Plan. The park should explore the option of developing an accessible car top boat launch at this location.

Winter Ski Trails

<u>Gideon Putnam North Loop</u>: 1.7 miles <u>Gideon Putnam South Loop</u>: 1.1 miles <u>Interior Loop</u>: 0.7 miles <u>Spa Loop</u>: 0.5 miles <u>Uses</u>: Cross-country skiing – marked in winter only. <u>Description</u>: Figure 2 – Winter Ski Trails shows the location of the four seasonal trails. Three separate trailheads mark the beginning of the four trails. One trailhead is located on the Par 29 Course, one is located at the Warming Hut and a third is located across from the Victoria Pool parking lot. These trails are groomed by the Park Maintenance Department using a snowmobile. Other trails in the park may be used by skiers but are not groomed.

Assessment: Skiers who do not stay on trails damage golf course greens and sand traps. It is necessary to provide maps and clearly mark the trails so as to limit damage to the golf course.

Recommendations: The ski trails should be marked with 4"x4" diamonds: blue with white skier. Depending on terrain, markers should generally appear every 50-100 feet. Markers should be nailed into trees partially so as to allow the tree to grow without popping the nails. Posts with markers should be temporarily placed in the rough after the golf season ends (November). It is estimated that 300 markers will be needed to complete this task. Consider providing kiosks at trailheads and printed maps for ease of use and to encourage staying on marked trails. Developing a volunteer patrol with easily identifiable jerseys would be an additional measure to encourage proper use of trails. It is highly recommended to keep in contact with the Saratoga Spa Golf Course management.

III. Trail System Alternatives

As described earlier, the Saratoga Spa State Park trail system consists of a network of over 18 miles of trails, from single track to gravel sections and paved multi-use paths and social paths. Although there are no designated trail uses for the trail system, they are currently used for walking, hiking, jogging, biking, skating, horseback-riding and winter uses including cross country-skiing and snow-shoeing.

One of the recreational goals identified in the Master Plan is to develop and maintain a sustainable trail system that is compatible with the park's natural, cultural, and physical resources, provides recreational and educational opportunity for a diversity of trail users and links to regional trail systems. All trails in the park were mapped using Global Positioning Systems (GPS). A conditions assessment of all trails was conducted by Albany and Park Staff. Through analysis of the existing conditions maps, assessment information, Natural Heritage Data and public comments received from the regional trails workshop and Master Plan public information meeting, both held in 2008, it was determined that the trails system could be improved to meet the needs of the public while protecting the resources of the Park.

The following provides the Status Quo Alternative and the Preferred Alternative. The Preferred Alternative is the result of the analysis of the trails system as described above.

A. Status Quo Alternative

The existing trails system offers a variety of trail experiences including single track natural surface, stone dust, gravel and paved trails. Some of the park's gravel vehicular roads are used as trails as well. Trails located in the primary use area of the park have very minimal signage and have no cohesive designated system. These trails currently have no designated uses associated with them. They are used by patrons for many purposes including hiking, biking, in-line skating, horseback riding, nature interpretation, cross-country running and skiing and snowshoeing. A number of social trails have developed over time possibly due to the lack of a designated system and signage. Many of these trails are unsustainable.

There are four parcels separated geographically from the primary use area: the endangered butterfly habitat, Hemlock Trail, Driscoll Road and Burl Trail areas. Each of these areas, which offer natural surface trail opportunities, has a marked trail system with the exception of the Driscoll Road trail, which consists of a single, out-and-back trail. These trails do not have designated uses as well.

The Status Quo Alternative is to maintain the existing trails system as shown in Figure 1. This Alternative may result in continued use and creation of social paths due to the lack of signage and designation of appropriate uses on trails. This Alternative does not consider the impacts of trail use on the natural, cultural and physical resources of the Park or the current conditions and alignments of trails, such as, erosion on fall line trails.

B. Preferred Alternative

The Preferred Alternative consists of the recommendations provided for each of the trails as identified in the Trails Section in addition to designating a trails system for the primary use area of the park, developing a bike/pedestrian route along Route 9 and a stone dust path to parallel the East-West Road, and designating uses for trails throughout the park. Designating a trails system for the primary use area includes developing a number of connector trails and closing some sections of trails. Designating trails and allowable uses helps to encourage appropriate usage by patrons thereby minimizing environmental impacts. Connections to external trail systems and mass transit are also included as part of the Preferred Alternative.

These modifications will provide a better organized trail system, improving visitor experience by improving circulation of trail users and minimizing confusion while providing for the protection of environmental resources of the park. It has been determined that these recommendations are compatible with each other and will provide an improved and comprehensive trail system within Saratoga Spa State Park.

Overall, the Preferred Alternative involves some general maintenance measures, eliminates some social trails, develops some connector trails, mitigates erosion and standing water issues, brings trails up to user development standards, realigns trails to reduce environmental impacts, and provides a designated and signed trail system. A long-term maintenance and monitoring plan will be developed to ensure the continued sustainability of the trails system.

The Preferred Alternative will function as the Trails Plan and will be discussed in more detail within the following Trails Plan section.

IV. Trails Plan

A Trails System

1. Trails

The trails system will provide over 19 miles of designated trails for a variety of trail experiences for the diverse users of the park's facilities. Trails are located both in the primary use area of the park as well as on separate parcels which allow users to access the natural, cultural and historical resources located in the park. The Trails Plan includes approximately four miles of newly proposed trail (excluding connections to external trail systems) including longer segments along Route 9 and the East West Road. Almost 1.0 mile of trails will be closed including social paths and unsustainable trail sections.

Due to the density of trails and pathways in the Geyser Park, Mall and Lincoln Park areas, the Trails Plan will classify the existing routes as trails, connectors or pathways. <u>Trails</u> include designated loop trails and other linear named trails. These will be signed as designated trails with markers. <u>Connectors</u> include short trail segments with natural or stone dust/gravel surfaces that connect loop trails to picnic and parking areas, facilities and to each other. Due to the density of trails in this area, it is not practical to name these segments. <u>Pathways</u> include the stone dust and asphalt walkways in the Mall Area and at SPAC. Connectors and pathways will not be signed with markers nor have designated uses. The remaining parcels of land will use the classification of trails only.

- a. Geyser Park Area
 - i. Designate a Loop Trail System

The existing network of trails and lack of signage in the Geyser Park Area provides for a very confusing visitor experience. This plan designates a loop trail system in the Geyser Park Area to accommodate the different user groups and promote use of sustainable trails and away from unsustainable social paths. Figure 7 – Proposed Trail System in Primary Use Area shows the location of the proposed loop trail system. Designating a trail system and encouraging proper use of trails should decrease the potential negative impacts to natural resources in the park. A loop system allows visitors to enter from different locations around the Geyser Park Area and provides users the option of shorter or longer

trail experiences. These trails should be well signed to encourage visitors to use them as opposed to creating new trails and/or utilizing ones that are being closed.

Development of the loop trail names in this area was based off of existing pavilion areas or natural resources located in the vicinity of the trail. Due to the density of the trail system and the necessary signage to be installed, it was deemed appropriate to only utilize the first letter of the full name to identify the trails. Names for loop trails in the Geyser Park Area include: G (Geyser) Trail, H (Hathorn) Trail, O (Orenda) Trail, P (Peerless) Trail, T (Tufa) Trail, and W (Wetland) Trail.

As shown on Figure 7, the loop trail system utilizes the majority of the existing trail network in the Geyser Park Area to develop five loops. (G, H, O, T and W Trails). A sixth loop (P Trail) will be developed around the Peerless Pool Complex to accommodate the high use of the pool area. A couple of trail segments will be developed to provide more appropriate linkages for the loop system, including a segment of the G Trail that will run along the North-South Road in order to bypass the steep slopes on each side of the Ferndell Trail. Two short sections of the G Trail require re-routing due to unsustainable trail grades. The G Trail crosses a bridge over the Geyser Creek along the East West Road. There will need to be improvements made to the bridge approaches along the roadway shoulder in both directions to accommodate designated uses as listed below. For the W Trail, a trail segment will be developed to bypass the service road (the service road will subsequently be closed to public use). There is an existing old trail in this vicinity, most of which may be utilized for this proposed segment. Further review will be required to determine alignment of the full length of this segment. A small stream crossing will need to be constructed near the junction of the W Trail and the connector trail (old rail corridor). For the P Trail, an overgrown section of trail to the north of the Peerless Pool Complex requires re-opening. Further review and environmental assessment are required to determine final alignments of each new segment. Clearing and grubbing will be required to develop segments. Efforts will be made in the design and development of new trail segments to minimize impacts to the surrounding vegetation.

The designated loop trail system includes the closing and brushing in of some existing trails. Some of these trails are short and unsustainable as they are located along fall lines and have erosion issues. Guidelines for closing trails are provided in Section V - Standards. In addition, a stairway will be developed to connect the lower and upper trails near the Orenda tufa formation (T Trail). This will provide for an extended interpretive experience. Benches will be added in this location for an extended viewing and resting place.

The designated loop trail system in the Geyser Park Area includes single and multipleuse trails (Figure 8 – Proposed Trail System in Primary Use Area by Use). Two loop trails (O and T Trails) will be designated for walking/hiking. Both trails are located in a high use area next to SPAC. In addition, the T Trail will include a set of stairs at the tufa formation and part of the O Trail runs along the sidewalk of the Orenda picnic area. Walking/hiking was deemed the only appropriate use of these trails. Three loop trails (G, H, and W Trails) will be designated for walking/hiking, biking and equestrian. These trails consist of mostly natural surface with a few short stone dust/gravel sections and are deemed appropriate for these uses. The loop around the Peerless Pool Complex (P Trail) will be designated for hiking and biking. Equestrian use is not considered appropriate for this trail due to its proximity to the future disc golf course and other recreation facilities around the pool complex and the expected high volume of use by families with children from the pool area.

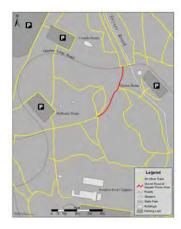
The remaining trails in this area will be considered connectors as noted above.

In addition to recreation, the loop trail system will be used for natural and cultural interpretive experiences. Interpretive kiosks and additional panels will be provided along the trails at key points to educate visitors about the natural and cultural resources of the park. Brochures may be developed to promote use of the trails.

As noted above, the designated loop trail system in the Geyser Park Area will require a couple of minor reroutes. More substantive modifications for a specific loop trail segment, a connector and another trail in this area are described below with maps to show locations. These trail segments are highlighted here due to the more significant upgrade measures needed as compared to other existing trails.

Gravel road at Geyser picnic area

There is a 20 foot wide gravel road located to the southwest of the Geyser picnic area connecting the Geyser Loop Road to the Peerless Pool parking lot. The section of road that descends the hill has significant erosion during heavy rain events with washouts at the base of the hill across the Geyser Loop Road. The width of the road will be decreased to create a more "trail like" experience. The sides of the trail will be brushed in to a single car width as park vehicles still need to use this route. Water management measures will be utilized to provide positive drainage to deal with the large volume of water that descends the route. Grading, de-berming, water bars, culverts and stabilization of the surface may be used in this effort. This will be part of the G Trail.



Gravel road from Roosevelt I to Geyser picnic area

The gravel road that descends the hill from Roosevelt I to the Geyser picnic area experiences erosion and has a dislodged culvert at the bottom of the hill. This is part of the certified 5K running course and needs to remain open. It is also used as a direct route from the top of the hill to the Geyser picnic area for heavy park equipment. Some maintenance work is required to address water management on this route and reset the culvert. The width of the road will be decreased as well. The sides of the trail will be brushed in to a single car width as park vehicles still need to use this route. This is considered a connector in this plan.



Ferndell Trail

The gravel trail near the Ferndell picnic area leading down to the Geyser Loop Road is also in need of attention. The beginning of this trail is eroded by sheet flow storm water runoff from the North South Road during heavy rain events. The rest of this trail is repeatedly damaged by excess storm water run-off originating at the Ferndell parking lot. Storm water runoff from the parking lot, which empties directly into the stream, causes exaggerated peak flows following storm events, which far exceed the normally limited flows from the very small watershed. Conditions along the trail, including perched and/or undersized culverts, add to the problem and result in frequent washouts at the base of the trail. An in-depth plan



is being designed by park staff to deal with the large amount of water that gets funneled around this trail. As this trail is historic in nature and is part of the 5K running course, rather than realign the trail, measures are planned to reduce and/or slow the flow of storm water, reset/resize culverts, and to stabilize embankments along the current trail alignment.

ii. Extend paved path south along Route 9

Develop an extension of the paved bicycle/pedestrian path from the north along Route 9 to connect Marrin Avenue through the tree nursery to the East-West Road (shown on Figure 7). The existing pathway along Route 9 connects into the park at the northeast corner of the park, at the Avenue of the Pines and at Marrin Avenue, providing loop opportunities. This connection provides an off-road trail south to the East-West Road offering a potential extended loop (in conjunction with the proposed East-West Trail below) and provides safe passage through the park along busy Route 9. There is a wetland area located along this corridor just south of the tree nursery. Further environmental assessment is required in this area to locate an appropriate route and to minimize impacts to this sensitive area. Uses on this trail will be consistent with the northern section including walking/hiking and biking. The park will explore options with the NYS Department of Environmental Conservation for development of the path through the tree nursery section (ex. Easement, Memorandum of Understanding).

iii. East-West Trail

Develop a stone dust trail that parallels the East-West Road connecting the abovementioned path along Route 9 to the northwest corner of the new W Trail. This trail will co-align with the southern section of the P Trail just south of the Peerless Pool Complex. The proposed corridor is shown on Figure 7. Further environmental assessment is required for this trail as well to locate an appropriate alignment. Designated uses will be walking/hiking and biking remaining consistent with uses of the path along Route 9 and the co-aligned portion of the P Trail.

iv. North South Road connector

Develop a stone dust path from the above proposed East-West Trail north along the North South Road to connect to the proposed G Trail alignment. Park staff direct patrons from the Columbia picnic area up the North South Road during SPAC events. Development of this connector will complete an off-road pathway for the entire length of the North South Road. The proposed alignment is shown on Figure 7. This corridor consists of an approximately 12 foot wide mowed section along the edge of the road bordered by upland forest. This trail will require grubbing and surfacing. As this is considered a connector, there will be no associated designated uses.

v. Potential Wetland Interpretive Trail

An opportunity exists to develop an interpretive trail at the wetland area south of the W Trail and East-West Road. Much of this area is state regulated Class I wetland. Although constraints do exist with wetland areas, there exists the possibility to assess this area for the development of a trail utilizing boardwalks through the wetland. This would provide another recreational opportunity for visitors to the park as well as an interpretive opportunity of both the ecological and wildlife aspects of wetlands. Access to this area would need to be considered regarding entry via other trails or an additional parking area closer to a proposed trail. The cost of constructing a boardwalk system and potential impacts on the wetlands may be inhibiting to this option. This opportunity will be further assessed in the future.

b. Mall Area including SPAC

This plan includes no modifications to the pathways in this area. There will be no designated uses for these pathways as they are not considered trails within this plan.

c. Lincoln Park Area, including Avenue of the Pines

There will be no modifications to the existing trail alignments in this area. Designating trails in this area and development of a trail along the western boundary are appropriate for improving visitor circulation into and within the park.

i. Designate loop trails

This plan designates two loop trails in this area. Figure 7 shows the location of the two loop trails (A and L Trails). Also noted on the map are social trails to be closed in the most northern section. The remaining connectors will be used for access to the loop trails from the surrounding neighborhoods and facilities.

ii. Trolley Line Trail

The Trolley Line Trail will be developed incorporating the existing trail that follows the old trolley line behind the residences. A continuation of this trail southwest will be developed to make a connection from West Fenlon Avenue to the Avenue of the Pines. The proposed alignment is shown on Figure 7. Currently, the trail dead ends onto an open area near the golf course at the southeastern corner of the residences. The southern section of the existing trail will require some clearing. The proposed section of the trail crosses lawn area adjacent to the golf course and some wood lands. Clearing and grubbing will be required for this proposed section. The southern section of the proposed trail is co-aligned with the old trolley line which is currently used by the Saratoga County Water Authority for water and sewer lines. This section is already cleared. The development of this trail is in conjunction with the proposed connector to the Railroad Run Trail (see Section IV.A.2 External Connections).

Designated uses on trails in the Lincoln Park Area will be walking/hiking and biking as shown on Figure 8. Adding equestrian use to these trails has been determined to be unsafe due to the high number of other users on these paths and the close proximity of trails to the park roads and golf courses.

The pedestrian circulation paths around the Lincoln Bathhouse and the National Museum of Dance will be improved as part of the development of a new Visitor Center as proposed in the Master Plan (see Chapter 5 – Analysis and Alternatives). These will not be addressed in this plan.

d. Endangered Butterfly Habitat Area

Formalize the trail system in this area including establishing an appropriate trail width and closing social trails. A slight re-route of the Blue Trail or a short boardwalk may be required in the southwest corner. The alignment of trails may also change to accommodate the implementation of habitat restoration projects planned for the area. Due to the sensitive nature of this area, walking/hiking will be the only designated uses.

e. Hemlock Trail Area

There will be no modifications to the existing trail alignments in this area. Designated uses will be walking/hiking and biking.

There are a number of new proposed trails as shown in Figure 9 – Hemlock Trail Area Proposed Trails. There has been no formal assessment for the location of these trails. The impetus for these proposals is additional trail length, connection to other trails and providing a trail access point along Kaydeross Avenue West.

- i. A trail is proposed to branch off of the existing Green Loop Trail and loop around the western section of this parcel. This would provide the opportunity of a longer trail experience with multiple loop options.
- ii. A connector trail is proposed to branch off from the northwest corner of the Hemlock Trail and connect up to the corner of the lot providing a link to the endangered butterfly habitat area. This would involve a road crossing to the other parcel.
- iii. A trail is proposed to create a link from the Green Loop Trail south to the Kayaderosseras House along Kaydeross Avenue West as well as a short loop trail along this route. The park is currently considering the future use of the Kayaderosseras House. Depending upon the final decision, this trail may or may not be appropriate. Considerations should be made regarding who will be utilizing the building, if day use or residential, and the proximity of a trail to the visitors/inhabitants.

In each case, further ecological assessment of the area will be needed before any new trails are developed. Much of the Hemlock Trail Area is regulated wetlands creating wet conditions and the possible need for additional bridges or boardwalks.

Designated uses being considered for the new trails are walking/hiking and biking. Should the trail length in the Hemlock Trail Area be increased, this area will be reassessed and consideration given to the potential for adding equestrian use. Current restrictions to this use include shorter trail lengths, lack of sufficient space for horse trailers in the parking area, and existing conditions of bridges that do not meet horse and rider use standards.

f. Driscoll Road Area

There will be no modification to the existing trail alignment in this area. The trail will be maintained to meet accessibility standards. Designated uses will be walking/hiking. The short length of the trail makes walking/hiking the only appropriate uses on this trail. This area will continue to be used as a car top boat launch site and for fishing access. A nature viewing point/sitting area with benches will be developed along the creek. The park will explore the opportunity to develop a nature trail on the rest of the Driscoll Road parcel including environmental review in this process.

g. Burl Trail Area

A short re-route is required near the beginning of the trail where the alignment runs close to the eroding bank. Wet spots may require slight re-routes as well. Designated uses on this trail will be walking/hiking. The short length of this loop trail makes walking/hiking the only appropriate use of this trail. The trailhead/parking area will continue to be used as a car top boat launch site.

h. Winter Ski Trails

There will be no modifications to the current alignment of these seasonal trails. The designated use of these trails is cross-country skiing.

i. Designated Trail Uses

Trails in the park do not currently have designated uses. As noted above, this plan designates uses for the trails in the park to encourage appropriate use of a sustainable trails system. Table 1 shows the designated uses for each trail or area. In each case, trails will be brought up to use development standards (see Section V.B. Design) for the designated uses before being signed as such.

Trail/Area	Walking/ Hiking	Biking	Equestrian	Cross country skiing*	Snow- shoeing**	Interpretive	Car top boat launch site
Geyser Park	Х	Х	X***	0	Х	Х	
Area							
Lincoln Park	Х	Х			X		
End. Butterfly	Х				X	Х	
Habitat							
Hemlock	Х	Х			X	Х	
Driscoll Road	Х				X		Х
Burl Trail	Х				X	Х	Х
Winter Ski Trails				Х	X		
*Cross-country skiing will be allowed on all trails. However, those identified are recommended and groomed.							
** Snow-shoeing v	vill be allowe	d on all trai	ls.				
***Equestrian use	will be allow	ed on desig	nated trails. It w	vill not be perm	nitted on desig	nated trails duri	ng the Fall

Table 1: Designated Use for Trails/Areas

***Equestrian use will be allowed on designated trails. It will not be permitted on designated trails during the Fall cross-country running season to limit conflicts with large numbers of runners or during significantly wet periods to reduce impacts to the trail surface.

Those trails marked as interpretive trails are used by the park staff to take visitors/groups on tours and conduct interpretive programs.

The pathways in the Mall Area have no designated uses as they are not considered trails in the context of this plan. Connectors also have no designated uses.

The park may consider developing a bike/cross-country ski rental program to further encourage year-round use of trails. Currently, the park rents snow-shoes for visitor use.

2. External Connections

The location of the Saratoga Spa State Park provides multiple opportunities to connect to external systems including trail systems and mass transit. One of the goals of the park's Master Plan is to encourage and support linkages to regional trails. The following list describes potential trail connections to external systems that are recommended to be developed as part of this trails plan.

- a. External systems Linkages to regional trails
 - i. Railroad Run Trail

Currently the Railroad Run Trail connects West Circular Street to Congress Avenue along a north-south former rail bed to the west of the Price Chopper Plaza on Route 50. This half mile dual-trail (one side is stone dust, the other is asphalt) connects to the YMCA and is used for a variety of activities including walking, biking, and roller blading. An extension of this trail to safely cross Route 50 into the park's trail system would be a great benefit to all. This would provide a northern link into the park's trail system from an existing external trail. This connection is essential to providing safe pedestrian access into the park from the surrounding neighborhoods as well as from downtown Saratoga. In addition, this would provide the park connection to the proposed Palmertown Range Trail (Saratoga County Green Infrastructure Plan) providing an onroad/off-road trail between Saratoga Spa and Moreau Lake State Parks. The possibility for developing a safe crossing of Route 50 and its location are currently being worked on jointly with the City of Saratoga Springs and the NYS Department of Transportation. The park's preferred connector route is shown on Figure 7. This would connect to the future Trolley Line Trail.

ii. Geyser Road Trail

The park is making efforts to create a trail connection from the pedestrian overpass across Route 50 from SPAC to Old Ballston Avenue. This section has been paved. This provides the opportunity of linking to the proposed Geyser Road Trail. The proposed alignment is shown on Figure 7.

iii. Zim Smith Trail

There exists the opportunity to develop a multi-use trail connection from the Geyser Park Area through the southern section of the park that would eventually link to the Zim Smith Trail. The old rail corridor extends due south from the Geyser Park Area beyond the park boundary across a section of private land that covers about 6/10s of a mile before reentering park property. The corridor continues skirting the park boundary from the northeast to the southwest connecting to the southern most section of the park, the Burl Trail Area. The Green Infrastructure Plan for Saratoga County proposes the Zim Smith Trail North to make this external connection to the park. Easement opportunities could be explored with the Saratoga County Water Authority, who utilizes the old rail corridor for water and sewer, and the private landowner.

iv. Woods Hollow Preserve

Another potential external connection in the southern section of the park would be to the Woods Hollow Preserve in the Town of Milton and the adjacent Corcoran Property owned by the City of Saratoga Springs. These two entities are currently working on a joint management plan. The park should maintain contact with these entities regarding this potential future connection.

v. Kayaderosseras Creek-Fish Creek Greenway

A designated Water Trail along the Kayaderosseras Creek will provide a link in to another external trail system. The Green Infrastructure Plan for Saratoga County identifies a Kayaderosseras Creek-Fish Creek Greenway to connect via waterways the southern Adirondacks to the Hudson River. The park lies along this route. The improvement of this waterway as a trail will increase local connectivity between Ballston Spa's Williams Kelley Park and Saratoga Lake and Fish Creek. Currently there are two car top boat launch sites located along the creek on park property (Burl and Driscoll Road Trails). Designation of a Water Trail will include protection and maintenance of the launch sites, a signage system along the creek and promotion of the water trail. A maintenance plan will be developed to assure clearing debris in the creek to provide a safe route of travel as well as proper maintenance of the access points. Small picnic areas may be considered as well.

b. Mass transit

One of the goals of the Master Plan is to enhance opportunities for alternative transportation routes to the park. Due to increased fuel prices, many people are using alternate transportation as a means of travel. Making easy connections from public transportation to the park would increase visitor accessibility and promote sustainability through the conservation of fuel resources and reduction of carbon dioxide emissions. Connections to mass transit are feasible due to the location of the park.

The park should develop partnerships with local private and public transportation entities to promote use of public transit in conjunction with park visits. The Capital District Transportation Authority (CDTA) bus system has a regular bus route along Routes 50 and 9. CDTA's Saratoga Springs Summer Trolley provides a link from downtown Saratoga to SPAC and the Hall of Springs in the summer. The park will inquire with CDTA regarding the addition of bus stops at the road entries into the park. The existing and potential additional bus stops could include covered benches to provide a more appealing entry route. Kiosks and maps at bus stations would encourage use of trails and park resources. The park's close proximity to the Amtrak Station on Station Lane may provide another opportunity for the park to maximize exposure to out of town visitors. The park should explore options of publicity at the station as well as wayfaring signs to provide easy navigation to the park.

The Trails Plan for Saratoga Spa State Park is illustrated on Figure 10 – Final Trails Plan and Figure 11 – Final Trails Plan for Primary Use Area.

B. Interpretation

Most of the interpretation conducted in Saratoga Spa State Park takes place on trails. Both historic and environmental education programs are conducted year-round for widely varied

audiences, including schools, public patrons and private groups. Interpretation differs from trail to trail, depending on available and unique resources. Trails used for interpretation are listed and described below as well as future interpretive opportunities.

<u>Burl Trail</u> - The Burl Trail is utilized annually for a 'Meet the Creek' event. This event is overseen by the Friends of the Kayaderosseras. The trail is also used to interpret wetland and stream ecology.

<u>Hemlock Trail Area</u> - The Hemlock Trail area is used for field ecology, winter tracking, snowshoeing and a variety of children's hiking programs. The land's composition lends itself to programs focused on wetlands, old-growth and succession.

<u>Endangered Butterfly Habitat Area</u> - The butterfly habitat area is used for the environmental education program 'Keeping the Karner Blue'. It allows students to experience sand plain habitat, see blue lupine and learn about the endangered Karner blue butterfly. In addition, a local community group (Saratoga Mentoring) has learned about sand plain ecology and planted nectar species in this area. This trail system is also used for identification of wildflowers, invasive species and birds.

<u>Geyser Park Area</u> - The Geyser Park trails are the most widely used for education. School programs that use these trails include Stream Exploration, Tree ID, and Exploring the Outdoors. Each year the trails are used to conduct the Saratoga County Envirothon. Guided public programs include bird, wildflower, and tree identification, and mineral spring tours.

<u>Wetland Trail</u> - The Wetland Trail is used to conduct FrogWatch USA, a citizen science program involving frog and toad identification. This program runs from March to May. This trail has also been used to access the dump for star gazing programs.

<u>Winter Trails</u> - Winter trails, both on the golf course and in the Geyser Park Area, are used for Beginning Snowshoeing, Winter Challenges, winter tracking and the Winterfest Candlelight Ski and Snowshoe.

These trails will continue to be used for these programs. Interpretive panels and kiosks located along trails at notable locations (springs, wetlands) would greatly enhance the visitor experience by providing additional information and education about the park's natural and cultural resources. A self-guided tour brochure of the spa facilities and mineral springs could be developed as well. These would all enhance the self-guided tour possibilities of the park.

An additional interpretive trail will be developed utilizing the pathways in the Mall Area. The Mall Area contains a number of buildings that can be interpreted as historic and cultural resources. This trail will be developed by installing panels around the Mall area to provide a self-guided tour opportunity. An appropriate route for this trail will be developed at a future date. Design and location of panels will be coordinated with the overall Saratoga Spa State Park Signage Plan and in conjunction with the Sign Design Guidelines for the NY State Park System (*currently being drafted*).

The park will consider developing canoe and kayak programs to provide interpretation of the ecological resources along the waterways in and adjacent to the park. These programs would begin at either of the existing car top boat launch sites, Driscoll Road or Burl Trail.

C. Trailheads/ Parking Lots

There are multiple parking lots and entry points in to the trail network of the park. The Geyser Park Area has ten parking lots (eight with picnic areas) by which visitors can access trails in addition to parking areas located in the Mall and Lincoln Park areas. The four separate parcels, the endangered butterfly habitat, Hemlock Trail, Driscoll Road, and Burl Trail areas, each have parking lots to accommodate visitors to those areas. There is currently ample parking available for trail users, however, signage is lacking at these locations in many cases. As part of this plan, formal trailheads will be established at key access points in most parking areas.

There is currently no designated parking area for horse trailers. The Warming Hut, Administration Building and Roosevelt Bath parking lots have been the locations for most equestrian parking to date. This plan designates the Roosevelt Bath and Carlsbad parking lots as locations for horse trailer parking. These locations are shown on Figure 7. This will provide direct access for equestrians into the park's trail system. No additional support facilities will be provided at these locations.

D. Coordination and trail maintenance

The maintenance of the trails and trail-related facilities currently occurs with the help of different organizations and individuals. There is currently no organized trails working group; organizations work directly with the park staff in scheduling their activities. Table 2 presents a list of activities conducted by different groups.

Name	Activities
In-House (Park Staff)	- Monitor trails bi-weekly
	- Maintenance Department helps with tree-removal, clearing trails
Friends of Saratoga Spa	- Restore pavilions along trails in the park and assists with beautification
State Park	projects in those areas.
Friends of the	- Responsible for the maintenance of the Burl Trail
Kayaderosseras	- Remove Japanese Knotweed from Burl Trail
	- Plant native species at Burl Trail
	- Hold annual Meet-the-Creek Event at Burl Trail
Student Conservation	- Built Hemlock Trail System in 2003
Association	- Enhanced Hemlock Trail in 2006 (built/repaired bridges, cleared trails)
	- Trail monitoring and cleanup
Saratoga Sport and Social	- Organizes and oversees trail clean-up days in the park
Club	
Saratoga Stryders	- Volunteer services during Fall Back Five (annual 5Mile trail race), trail
	cleanup, maintenance and financial support for trails.
Individuals	- Report off-leash dogs, pick up trash, and repair string fencing

Coordination will continue with a variety of groups and individuals. Further coordination efforts may include developing a volunteer Trails Working Group which would help with monitoring and maintaining trails in a more scheduled and organized fashion. The group would meet periodically with park staff. This would provide a coordinated approach in managing and improving the trails. Examples of tasks for such a group may include weekend trail projects (larger projects), trail monitors, and a `Green Crew' which would focus on trail clean-up.

Other opportunities exist for additional trail projects such as Group Service Projects. Outreach may be considered for the following groups in addition to others in the community: Siena College, Student Conservation Association, and Boy Scouts of America and Girl Scouts.

E. Park Rules

Visitors to the park are expected to follow general park rules. These rules are as follows:

- The park opens at 8 a.m. and closes at sunset.
- Trails are designed to be used by many different out door enthusiasts. For the safety of all users, please exercise safety and caution when approaching other users. For instance, bikers should sound a warning when approaching pedestrians.
- This is a Carry-in/Carry-out Park. Please be responsible to remove any trash you bring in.
- No Motorized Vehicles Allowed on Trails
- Dogs Must Be Kept on a Leash, No Longer Than 6' Long
- No Overnight Parking or Camping
- Park in Designated Areas Only
- No hunting

These rules will be posted on trailhead kiosk panels to promote appropriate use of park facilities.

F. Special Events – Permits

A special use permit is required for any group, in excess of 25 persons, conducting an outing in Saratoga Spa State Park. Any group or organization seeking to host an event which utilizes the park's trails, paths or roadways must first obtain a special use permit from the park office. Permit requests are evaluated on a case by case basis and approved or denied based on the compatibility of the activity to the desired park area. Examples of activities that may take place on the trail system, but require a special use permit include: races/walks (ex. fundraisers, scholastic competitions), geo-caching and research/ educational projects. Any questions regarding whether a special use permit is required for a group or activity should be directed to the park office.

G. Enforcement

Trail users are encouraged to obey all New York State Parks Rules and Regulations and any park specific signage as posted. 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 the Park Police. The Park Police and the Park Safety Rangers are responsible for the enforcement of park rules and regulations.

H. Implementation

To facilitate the development of a cohesive trails system as laid out in this plan, an implementation process has been developed. Sections of trail that require maintenance, rehabilitation or rerouting are identified in the assessment sections of Section II – Existing Trails System. The implementation steps necessary are outlined in this section. Improvements and reroutes should be completed prior to expanding multiple use opportunities. In some cases, further environmental review may be required before work on a trail can be conducted. A review and approval process has been developed for rerouting, relocating and developing new trails (Section VI.A. New Trails and Re-Alignment of existing trails).

A process for approving annual maintenance has been developed as well as a monitoring program (Section VI.B. Monitoring program). Maintenance of the trails system will be done by park staff in conjunction with different organizations and individuals (Section IV.D. Coordination and trail maintenance).

New and existing trails that require maintenance/repair will be designed or modified to maximize the opportunity to improve accessibility for persons with disabilities. The existing trails system will be assessed to determine whether the trails meet accessibility guidelines and actions that need to be taken to make the trails accessible, if appropriate and possible. Informational material will be provided at trailhead kiosks and in trail brochures identifying the characteristics (i.e. slope, terrain, etc.) of the trails.

Designated Uses: H (Walking/Hiking), B (Biking), E (Equestrian), CC (Cross-Country Skiing) Snowshoeing allowed on all trails

Trail Name	Length (miles)	Designated Uses	Blazing	Implementation Steps
Ferndell Trail	0.24	Н	none	 Manage water flow, reset/resize culverts and stabilize embankments Sign trail
G Trail (Geyser)	2.23	H, B, E	none	 Reroute two trail sections Develop trail section along North South Road Improve bridge approaches along East West Road Implement water management measures identified in assessment Bring trail up to user development standards Sign trail Close and brush in noted trail sections in area
H Trail (Hathorn)	0.95	H, B, E	none	 Implement water management measures identified in assessment Bring trail up to user development standards Sign trail Close and brush in noted trails sections in area
O Trail (Orenda)	0.87	H (coaligned sections with H and G Trails allow B, E)	none	 Bring trail up to user development standards Sign trail
P Trail (Peerless Pool)	0.92	H, B (coaligned sections with W, H and G Trails allow E)	none	 Determine final alignment of new trail section and develop Reopen one trail section Sign trail
T Trail (Tufa)	0.58	Н	none	Construct stairs Sign trail
W Trail (Wetland)	1.12	H, B, E	none	 Further review for final alignment of new section Clearing and grubbing required to develop new section Construct small stream crossing Implement water management measures identified in assessment Bring existing trail sections up to user development standards Close and brush in noted trail section in area Sign trail

Geyser Park Area

Saratoga Spa State Park: Trails Plan

North South Road connector	0.22	n/a	none	• Develop path
East-West Trail	1.05	Н, В	none	 Determine final alignment of trail Improve bridge approaches along East West Road Develop and sign trail
Route 9 path extension	0.89	Н, В	none	 Discuss easement or MOU option with DEC for tree nursery section Further assess trail alignment near wetland area Construct path

Lincoln Park Area

Trail Name	Length	Uses	Blazing	Implementation Steps
	(miles)			
A Trail (Avenue	1.80	H, B	none	• Sign trail
of the Pines)				
L Trail (Lincoln	1.05	H, B	none	Sign trail
Park)				
Trolley Line Trail	1.06	H, B	none	• Determine final alignment of new trail section and
				develop
				• Sign trail
				• Close and brush in noted trail sections in area

Endangered Butterfly Habitat Area

Trail Name	Length	Uses	Blazing	Implementation Steps
	(miles)			
Blue Trail	1.0	Н	Blue	 Establish appropriate trail width in conjunction with DEC ESU and USFWS Reroute or construct short boardwalk for wet section in SW corner Repair split rail fencing
1				
				• Replace dirt mounds with more permanent structures
				to discourage ATV use of trails
				 Close and brush in social trails
Green Trail	0.16	Η	Green	Routine trail maintenance, as necessary
Orange Trail	0.15	Н	Orange	Routine trail maintenance, as necessary
Red Trail	0.07	Н	Red	Routine trail maintenance, as necessary
White Trail	0.43	Н	White	Routine trail maintenance, as necessary
Yellow Trail	0.14	Н	Yellow	Routine trail maintenance, as necessary

Hemlock Trail Area

Trail Name	Length (miles)	Uses	Blazing	Implementation Steps
Green Loop Trail	0.6	H, B	Green	• Implement water management measures identified in assessment
Hemlock Trail	1.1	H, B	Blue	• Implement water management measures identified in assessment
White Loop Trail	0.42	H, B	White	Routine trail maintenance, as necessary
Proposed trails				• Further environmental assessment required

Driscoll Road Area

Trail Name	Length (miles)	Uses	Blazing	Implementation Steps
Driscoll Road Trail	0.15	Н	none	 Install signage along Route 9 Implement water management measures identified in
				assessment

 Replace steps at end of boardwalk with secure ramp Install sign for location of launch site Install bench(es) along creek for nature viewing/resting Further environmental assessment required for
potential additional trail

Burl Trail Area

Trail Name	Length (miles)	Uses	Blazing	Implementation Steps
Burl Trail	0.7	Н	Green	 Install signage along Northline Road Reroute trail away from eroded bank Water management or reroutes for wet spots along trail

Winter Ski Trails

Trail Name	Length	Uses	Blazing	Implementation Steps
	(miles)			
Gideon Putnam North	1.7	CC	Blue	 Mark trail appropriately Consider installation of kiosks at trailheads and printing maps Consider developing a volunteer patrol to encourage proper use of trails Maintain contact with Saratoga Spa Golf Course menogement
Gideon Putnam South	1.1	CC	Blue	Same as above
Interior Loop	0.7	CC	Blue	Same as above
Spa Loop	0.5	CC	Blue	Same as above

V. Standards

A. Trailheads, Kiosks, Signage

All trailhead and kiosk signage and trail markers will be developed in conjunction with the overall Saratoga Spa State Park Signage Plan and the Sign Design Guidelines for the NY State Park System (*currently being drafted*). A kiosk or similar structure providing information about the park and the trail system will be located at each trailhead. All trails will be named and marked with colored blazes located on trees or other structures at a height that will reduce the level of vandalism but that is still readily visible.

B. Design

Trail development and maintenance will be guided by design standards as follows in Table 3.

Trail Type	Vertical Clearance	Corridor Clearance	Tread- way Width	Surfacing Materials	Trail Length	Sight Distance	Slope	Turning Radius	Users/ Mile
Biking (Recreational – Family oriented, easy riding relatively smooth surface.)	8-10 feet	5-6 ft. (1 lane) 8-10 ft. (2 lane)	2-3 ft. (1 lane) 6-8 ft. (2 lane)	Touring/family – Smooth pavement, asphalt, concrete, crushed stone, clay or stabilized earth.	Min. – 5 mi. loop (1.5-2 hour) 15-25 mi. of linear or loop trails (day trip)	Min. of 50 ft. up to 100 ft. on downhill curves or road crossings.	0-5% Max: 5-10% sustained 15% shorter than 50 yd. Out slope of 2-4%	8-14 feet depending upon speed.	40
Mountain Biking	8-10 feet	1.5 – 6 ft. (1 lane)	Novice- 36 in. Intermedi ate-30 in. Expert- 12-18 in.	Firm natural surface including soil, rocks, wood; hardened surface for wet areas.	Min. – 5 mi. loop (1.5-2 hour) 15-25 mi. of linear or loop trails (day trip)	Min. of 100 ft. up to 150 ft. on downhill curves or road crossings	Over all grade not to exceed 10%. Climbing turns not to exceed 7-12%. Out slope of 3-5%	Novice/ Intermediate - min of 8 ft Expert – 6 ft min.	10
Cross-country Skiing (Variety of experience based on weather conditions)	8-10 ft. above snow depth. (10- 12 ft in summer)	8 ft (1 lane) 10-12 ft. (2 lane)	4-6 ft. (1 lane) 7-8 ft. (2 lane) 8-10 ft. (up hill)	Snow with underlying bare soil, rocks or wood chips. Out sloped underlying material. Can be groomed or ungroomed	0.5-3 mi. loops up to 4-8 mi. (2-4 hour trip)	Down hill runs, stream or road crossings 50 ft. Otherwise not critical	0-5% Max – 10% sustained 15-25% shorter than 50 yd. 25-40% shorter than 50 yd., experts only Out slope – 0-2%	Avoid sharp turns. Never locate a turn at the base of a downhill run. Min. – 50 ft. Preferred – 100 ft.	5-30
Hiking (Remote to High Use areas, Low to High Intensity)	8-10 ft	4 –8 ft	4-6 ft	Bare soil, rocks, stone dust, or wood chips. May have hardened surface (concrete, asphalt or boardwalks) in high use areas	0.25 – 5 mi. (1/2 day) 5-15 mi. (full day)	Not critical barrier on reverse curves may be used	$\begin{array}{c} 0-5\%\\ Max-15\%\\ sustained\\ 40\%+ \ shorter \ than\\ 50 \ yd.\\ Out \ slope-4\%\\ max \end{array}$	N/A	0-30
Hiking (Remote areas- Low intensity, wilderness type of experience)	8 ft.	4-6 ft.	18 –36** in.	Bare soil, rocks, gravel, wood hardened surface for wet areas	Min – 5 mi. 15 – 25 mi.	Not critical	1-5% Max - 15% sustained 40-50% shorter than 50 yd.	N/A	1-5

Table 3: TRAIL DEVELOPMENT GUIDELINES*

Trail Type	Vertical Clearance	Corridor Clearance	Tread- way Width	Surfacing Materials	Trail Length	Sight Distance	Slope	Turning Radius	Users/ Mile
Equestrian	10-12 ft.	5-6 ft. (1 lane)	18-30 in. (1 lane)	Soils having a large percentage of rocks, clay and/or organic matter. Void of rocks football sized or larger. Little treadway development required if soils are appropriate. In problem areas, water control measures may be installed. Brush and saplings should be cut flush or below ground level. Remove dead or leaning trees.	Min – 5 mi. (1-1.5 hour) 15-25 mi. of looped trails (full day)	Not critical unless 2 way traffic. 50- 100 ft. 100-200 ft. at motorized road crossings.	0-10% Max – 10% sustained 20% shorter than 50 yd. Outslope 4% max.	Not critical but avoid sharp turns on steep slopes or using switch-backs (30 ft. if they are necessary).	5-15

* All standards are intended to be in compliance with the Americans with Disabilities Act 1990. ** 36 inches is the minimum acceptable tread width for ADA standards.

These design standards were taken from the New York State Statewide Comprehensive Outdoor Recreation Plan (SCORP, 2003).

Some social trails will be closed. When this is the case, trails will be restored to a natural state via sensitive transplanting, reseeding, possible temporary deer fencing or other methods, and a monitoring program implemented. All plantings will be with native, non-invasive species. Vegetation should be allowed to grow on the abandoned trail where it intersects with a designated trail. Brush, rocks and other natural material should be placed on the abandoned trail for a distance so the linear characteristic of the trail can not be readily identifiable. These abandoned trails should not be identified on trail maps.

C. Maintenance

Maintenance of the trails will be conducted by Park staff as well as in partnership with various trail user or Friends groups. Trail maintenance standards will utilize acceptable practices and methods in the maintenance of trails to the particular uses of the trails. Maintenance activities include:

- Maintain drainage structures
- Water management: such as installation of knicks, rolling grade dips to divert water off of a trail
- Surface treatment
- Clearing and grubbing to maintain height and width clearances
- Maintaining bridges and other structures
- Maintaining signage

These activities should be coordinated with the park manager. Activities that go beyond normal maintenance will require the approval of the park manager. Park staff will maintain the parking lots and support facilities.

The following manuals may be used as resource guides for trail maintenance:

- *Trail Planning, Design & Development Guidelines.* 2006. State of Minnesota, Department of Natural Resources.
- *Trail Maintenance Manual*, 7th *Edition Revised*. 2007. New York-New Jersey Trail Conference, Inc. <u>http://www.nynjtc.org/volunteers/vresource.html</u>.
- *Trail Construction and Maintenance Notebook*. 2007 Edition. Forest Service, US Department of Agriculture.

http://www.fhwa.dot.gov/environment/fspubs/07232806/index.htm.

- Lightly on the Land: The SCA Trail-Building and Maintenance Manual. 2006. Robert C. Birkby, The Student Conservation Association.
- Trail Solutions: IMBA's Guide to Building Sweet Singletrack. 2004. International Mountain Bicycling Association.

D. Accessibility

New trails and existing trails that require maintenance/repair should be designed or modified to improve accessibility for persons with disabilities. Proposed accessibility guidelines for trails have been developed by the Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas.

The proposed accessibility guidelines are for newly constructed and altered trails connected to accessible trails or designated trailheads. There are some departures from the technical provisions that are permitted. The following is an abbreviated listing of the proposed trail guidelines without the exceptions:

- Surface The trail surface shall be firm and stable.
- Clear Tread Width The clear tread width of the trail shall be 36 inches minimum.
- Openings Openings in trail surface shall be of a size that does not permit passage of a ¹/₂ inch diameter sphere. Elongated openings shall be placed so that the long dimension is perpendicular or diagonal to the dominant direction of travel.
- Protruding Objects Protruding objects on trails shall have 80 inches minimum clear head room.
- Tread Obstacles Where tread obstacles exist, they shall not exceed 2 inches high maximum.
- Passing Space Where the clear tread width of the trail is less than 60 inches, passing spaces shall be provided at intervals of 1000 feet maximum. Passing spaces shall be either 60 inches minimum by 60 inches minimum space, or an intersection of two walking surfaces which provide a T-shaped space provided that the arms and stem of the T-shaped extend at least 48 inches beyond the intersection.
- Slopes Slopes shall comply with the following:
 - Cross Slopes The cross slope shall not exceed 1:20 maximum.
 - Running Slope Running slope of trail segments shall comply with one or more of the provisions of this section. No more than 30 percent of the total trail length shall exceed a running slope of 1:12.
 - Running slope shall be 1:20 or less for any distance.
 - Running slope shall be 1:12 maximum for 200 feet maximum. Resting intervals shall be provided at distances no greater than 200 feet apart.
 - Running slope shall be 1:10 maximum for 30 feet maximum. Resting intervals shall be provided at distances no greater than 30 feet apart.
 - Running slope shall be 1:8 maximum for 10 feet maximum. Resting intervals shall be provided at distances no greater than 10 feet apart.
- Resting Intervals Resting intervals shall be 60 inches minimum in length, shall have a width at least as wide as the widest portion of the trail segment leading to the resting interval, and have a slope not exceeding 1:20 in any direction.
- Edge Protection Where edge protection is provided along a trail, the edge protection shall have a height of 3 inches minimum.
- Signs Newly constructed and altered trails and trail segments that are accessible shall be designated with a symbol at the trail head and all designated access points. Signs identifying accessible trail segments shall include the total distance of the

accessible segment and the location of the first point of departure from the technical provisions.

In addition, there will be information displayed at the trailhead that will provide basic information about the trails. This will allow the trail user the opportunity to determine if the trail is appropriate for their abilities. This information will be available for all trails regardless of whether they meet the accessible guidelines.

VI. Evaluation, Assessment and Monitoring

The following guidelines will be utilized in the review and approval process for new trails or the re-alignment of existing trails and implementation of a monitoring system.

A. New Trails and Re-alignment of Existing Trails

There is a specific procedure for the reroute and development of trails and the annual maintenance of trails. Chart 1 outlines procedures to follow for the reroute of existing trails and the development of new trails. The scope and associated impacts of the proposed project will determine the extent of the review process. Larger proposals that may have an impact on environmental or cultural resources will require the review of the Agency's Resource Management Group (RMG). A SEQR determination will be made to determine if an Environmental Assessment would be required.

Annual maintenance encompasses routine functions, such as minor drainage control, trimming, and treadway maintenance. In most cases, this is reviewed and approved at the Park level (Chart 2).

For some trails, State Parks partners with trail organization(s) for development and/or maintenance. It is important that clear lines of communication are maintained among all involved parties. This will ensure that the work that is performed has gone through the review process and is under the direction of the park manager.

Chart 1: Procedures for Reroute / Relocation / New Trail Project

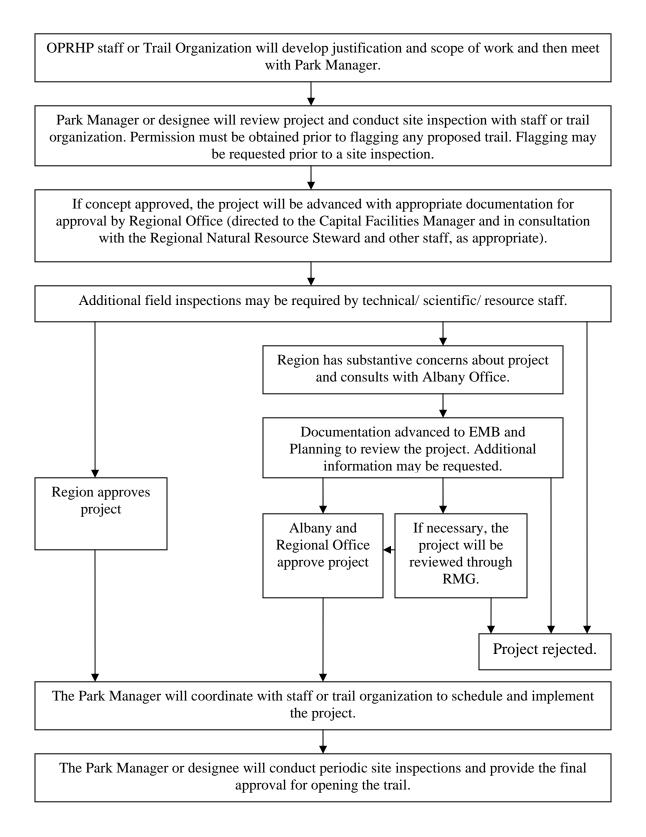
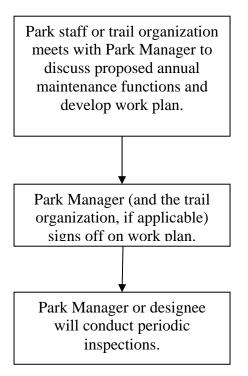


Chart 2: Approval for Trail Maintenance

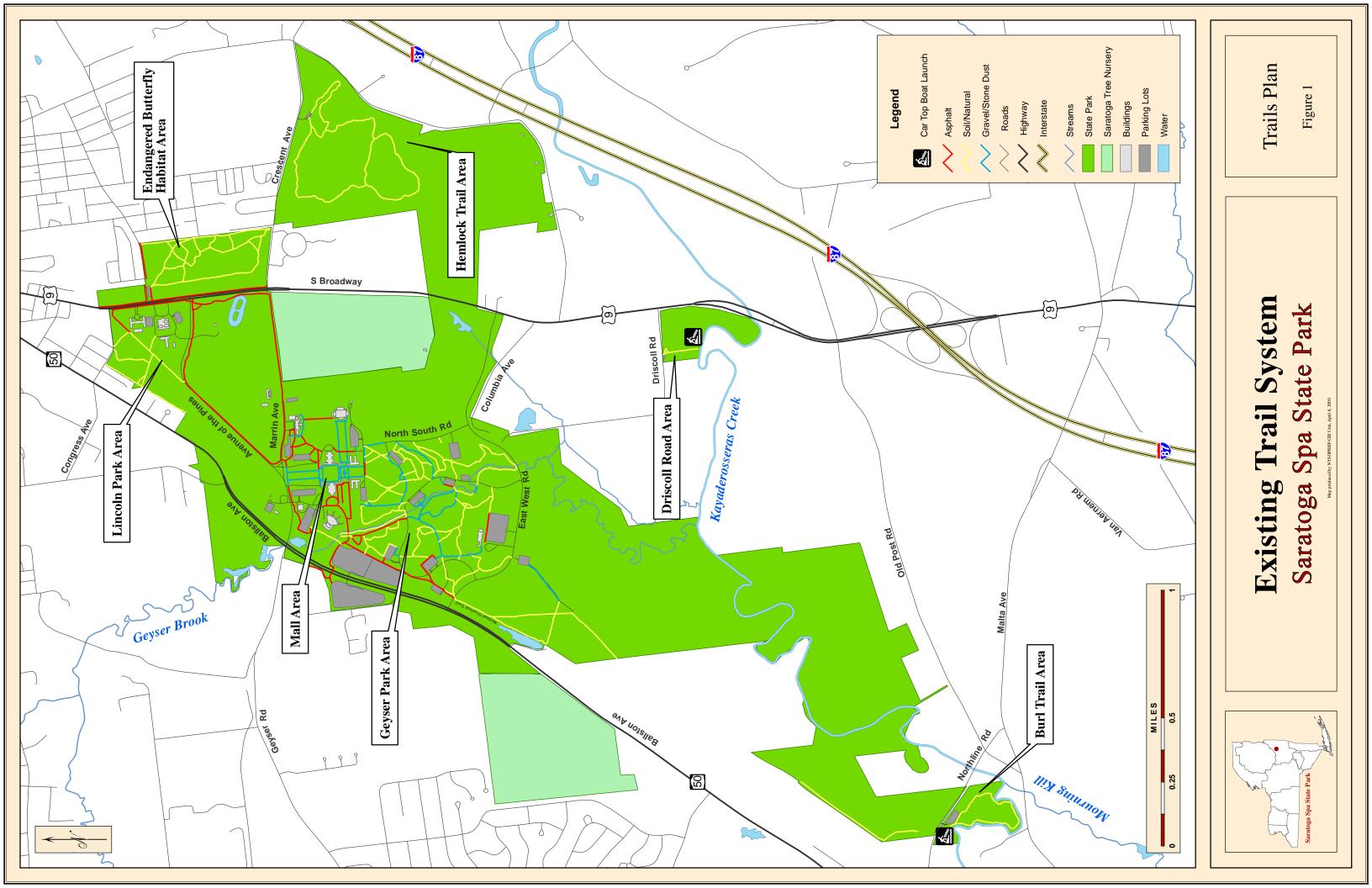


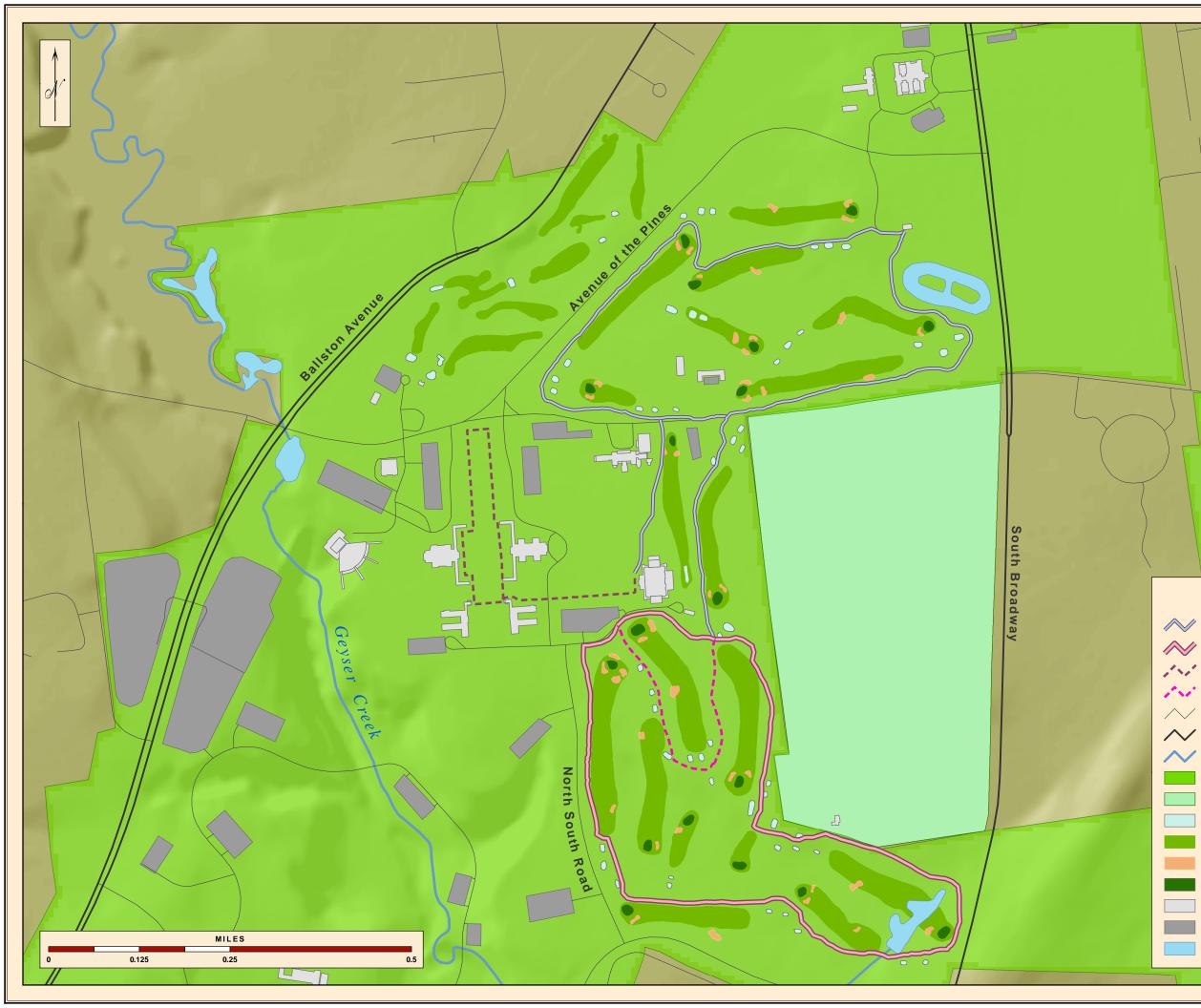
B. Monitoring Program

A monitoring program will include an annual inspection of all of the trails and periodic inspections of the trails throughout the year. The Managing Visitor Use model or a similar program will be utilized to monitor trail conditions.

VII. Bibliography

- Behan Planning Associates, LLC with Dodson Associates, Ltd. & American Farmland Trust. Saratoga County Green Infrastructure Plan. 2006.
- Evans, D.J. and Schneider, K.J. "Rare Species and Ecological Communities of Saratoga Spa State Park." Prepared for NYS Office of Parks, Recreation and Historic Preservation by New York Natural Heritage Program. March 2000.
- OPRHP. 2003. New York State Office of Parks, Recreation and Historic Preservation. Statewide Comprehensive Outdoor Recreation Plan: People-Resources-Recreation.





Legend

Gideon Putnam North Gideon Putnam South Spa Loop Interior Loop, Not Groomed Roads Highway Streams State Park Saratoga Tree Nursery Tee Fairway Sand Green Buildings Parking Lots Water

