

VI. Environmental Impacts and Mitigation

Introduction

Consistent with the intent of the State Environmental Quality Review Act (SEQR), environmental factors were considered in evaluating the plan alternatives and in selecting the preferred plan. This chapter is a summary of potential impacts associated with the preferred alternative. Environmental information useful in understanding the type and extent of potential impacts can be found in Chapter II - Environmental Setting and Chapter IV- Analysis of Alternatives. Chapter IV includes identification and analysis of potential environmental effects associated with alternatives. This chapter (Chapter VI) contains a summary of the potential impacts identified in Chapter IV. The focus of this Chapter is a description of the environmental impacts associated with implementation of the Master Plan, which is described in detail in Chapter V.

Impacts of Alternatives

In Chapter IV, Analysis and Alternatives, the park was divided into 4 management areas; Hudson River Corridor, Warren County, Palmertown Mountain and Lake Recreation. These areas are shown on Map 13 in Chapter IV. Alternative management and development directions were developed for each area using information developed on existing conditions, the analysis of recommended directions for activities and constraint and considerations identified in the resources analysis. The preferred alternative for the entire park (i.e. the Master Plan) consists of the best alternative identified for each management area. The Preferred Master Plan Alternative Section of Chapter IV summarizes the management area alternatives.

Much of the information on the environmental impacts of alternative actions is discussed in the analysis of the alternatives section. The following is a summary of the findings from the impact analysis of each of the alternatives for each management area which make up the preferred alternative and the Status Quo alternative

Status Quo Alternative

This alternative consists of the current facilities, programs and practices as described in the Environmental Setting Chapter. Under this alternative, the current resource protection, operation, and facility management practices would continue. The increasing demands on the park will not be met or mitigated nor would the resources be adequately protected. Identification and implementation of protection and use guidelines for the newly acquired parklands would be deferred until a future time.

The Status Quo alternative would not result in any additional adverse environmental impacts. The potential for long-term indirect adverse environmental impacts is likely, however, since there would be no plan to guide use, protection and development of this area. As more park visitors seek to use the park, additional demands will be placed on its natural, cultural and recreational resources. Without the guidance provided by the Master Plan, which directs more intensive use and development toward areas with higher capacity for

such use (and away from the more sensitive areas of the Park), the potential for adverse impacts on environmental resources increases.

Preferred Alternative and the Master Plan.

Overview

The preferred alternative is the compilation of the preferred recreation activity and resource stewardship options for the identified management areas. This compilation was subject to a final evaluation (or synthesis) to assure that there was consistency among the various alternatives. In addition, some changes have been made based on comments received on the Draft Plan/DEIS. This final assessment resulted in the identification of the Master Plan (Chapter V). The Master Plan provides considerable recreational and resource protection benefits. The plan also identifies potential adverse impacts, both short and long term, as well as ways to, if not eliminate them, minimize them to the fullest extent possible through appropriate mitigation measures. From a long-term perspective, implementation of the park master plan will result in a beneficial environmental impact by insuring that the most sensitive areas of the Park will be identified, monitored and provided appropriate stewardship.

Potential Environmental Impacts associated with Implementation of the Master Plan

Transportation: Access & Traffic

Implementation of the Master Plan will affect access to the park and traffic patterns in the vicinity of the park along Old Saratoga Road. In the Hudson River, Warren County and Palmertown Mountain areas, existing parking areas will be improved or expanded and new parking/access points will be developed. These improvements will increase parking and provide safe access to these areas of the park.

In the Lake Recreation area, the Master Plan proposes significant improvements to the existing park access off of Old Saratoga Road. There are several problems with the current configuration. The short length of the entrance road from Old Saratoga Road to the contact station results in significant back up and waiting times for patrons entering the park during peak use times. Campers needing to register have limited space to park. In addition, stacking occurs because patrons are willing to wait outside the park entrance along Old Saratoga Road until someone leaves the park in order to obtain entry. Currently on busy weekends, traffic backs up along Old Saratoga Road as vehicles wait to enter the park. Local traffic must drive around the waiting line of vehicles.

To alleviate backups and stacking along the road, the Plan proposes that Old Saratoga Road be widened by adding a lane on the south side of the road and then using the current north side lane as the stacking lane/right turn lane. This will provide safer conditions for both the patrons waiting to enter the Park and the through traffic traveling along Old Saratoga Road. In addition, a camper parking area will be constructed next to the park office which will move the waiting camper vehicles off the entrance road. These proposed changes will also result in safer traffic flow in the vicinity of the park entrance.

Recreation/Open Space

The implementation of the Moreau Lake State Park Master Plan will result in substantial beneficial recreation and open space impacts. The Plan provides for additional and improved camping opportunities, an improved trail network, better access to open space and scenic areas in the park, and nature and cultural resource interpretive and educational programs.

Future land acquisition would provide additional open space for the park, improved trail locations and linkages to other regional trail systems with benefits to open space and resource protection.

A report, *Assessment of Recreational Impacts of Campgrounds at Moreau Lake State Park* (Kisby, 2000) summarized research on camper impacts and evaluated several of the campsites in the park. This report supports the need identified in the Master Plan for rehabilitation of the existing camping area in the Lake Recreation Area which will improve conditions and bring the campground up to ADA standards. The report will also be a useful reference in designing and evaluation improvement to the new camping areas. Most of the individual sites in the existing areas show signs of overuse such as pad creep, soil compaction, scared trees and erosion. In addition, camping loops are crisscrossed with foot paths created by campers which also lead to soil compaction, loss of vegetation and erosion. Each camping loop will be evaluated for improvements and each site assessed to determine how it can be improved. Comfort stations and access paths will be evaluated for ADA compliance and planned to address “desired paths” created by campers. Techniques that will be considered at individual sites will include site edging, added plantings for screening, and creation of buddy sites. Camper education will also be an important component. This work will be phased and monitored and the various management strategies used will be evaluated for effectiveness. Tent sites within the group camping area will also be improved. Tent pads will be added to define the tent camp area. In addition, techniques mentioned above such as site edging and additional plantings will also be considered.

Plans for the new camping areas proposed in the Potter’s Point area and in the area between Route 9 and Old Saratoga Road will also include techniques such as site edging to minimize potential use impacts to the greatest extent possible.

Water Resources

Surface Water:

There will be a minimal increase in boater use of the Hudson River as a result of implementation of the Master Plan. Site constraints limit expansion of the existing boat launch sites. Within the Park, the Hudson River is defined by impoundments created by the existing dams. The Spier Falls impoundment is bounded by the Corinth Dam to the west and the Spier Falls Dam to the east. This area of the Hudson is accessed only from the Spier Falls boat launch area. The small 5-6 space parking area at the Spier Falls site will be improved to add only a couple additional parking spaces. The Sherman Island impoundment is bounded by the Spier Falls Dam to the west and the Sherman Island Dam to the east. This area is accessed only from the Sherman Island boat launch area which consists of a two lane gravel launch that is proposed in the plan to be improved as a textured concrete launch. These improvements will result in increased efficiency of launches and retrievals. The existing gravel parking area next to the launch has a current capacity of 15 vehicle/trailers and will not be

expanded. A canoe access point for campers at Potter's Point and a small car-top launch in the area off of Corinth Road would also provide access to the the Sherman Island impoundment and are the only additional access points proposed in the Plan. The development of the car-top launch off Corinth Road is proposed for later implementation phases and will occur only after public access rights have been negotiated with National Grid.

Improvements to the Sherman Island boat launch, development of a canoe access at Potter's Point and the possible car-top launch off Corinth Road in Warren County will require consultation with NYS DEC and possibly with the US Army Corps of Engineers. OPRHP will consult with both agencies as plans develop.

There will also be modest increases in use of Moreau Lake including swimming, non-motorized boating and fishing. The Master Plan calls for improvements to existing facilities in the Lake recreation Area; however, overall use will not significantly increase. All work in the area of the Lake will include erosion and sediment control measures as part of their design and implementation. This includes the rehabilitation of the camping areas, reconfiguration of the entrance area and improvements to trails.

The water level of Moreau Lake fluctuates naturally and is dependent on weather conditions. The lake receives water by direct precipitation, surface runoff and underground flow; it loses water by evaporation, transpiration, surface overflow and subsurface outflow. There is an outlet control structure at the south end of the lake that controls overflow and protects adjacent property within the floodplain of Moreau Lake. Water levels will be measured yearly to monitor for significant drops in water level. This monitoring along with routine monitoring of water quality will provide data for the agency to address any problems that may occur.

Wetlands:

The Park contains several good examples of wetland community types which contribute to its overall biodiversity. In particular, there are examples of common deep emergent marsh and shrub swamp communities which are part of the system of lakes and ponds around Moreau Lake. These wetlands are important interpretive resources as part of the park's nature programs. In addition, a less common wetland community complex consisting of the bog lake known as Lake Anne, a small dwarf shrub bog and a 3-acre Highbush blueberry bog thicket was also found within the park. None of the park's wetlands will be changed or affected by implementation of the Master Plan.

Biological Resources/Ecology

Overall, the Master Plan will have a positive impact on the natural resources within the Park. Limited new development is proposed in the large forested area along the Hudson River. Direct impacts associated with proposed improvements such as the cabin/camping area, trails, trailhead parking areas, etc. will be minimal since the proposed improvements have been sited in areas with previous development, limited environmental sensitivity and which generally possess accessibility to, and use of, existing infrastructure. Improvements to the boat launch areas along the Hudson River and new trail access areas will require little vegetation clearing and will not affect any rare plants or animals found in the park. Preparation of a Trail Plan (including primitive camping) for the Warren County Area of the park as well as plans for the proposed development of a picnic area and/or car-top boat launch off Corinth Road in the Warren County area will require additional supplemental

environmental review. In addition, each of these proposals will be designed so as to require minimal vegetation clearing and the evaluation of potential impacts to any rare plants or animals.

Development of camping in the Potter's Point area encompasses an eight acre area which will require thinning of trees. The cabin area will also require some clearing of trees and shrubby vegetation. This area does not affect any significant ecological communities or rare plants or animals. During the detailed design phase, each cabin and campsite will be analyzed to assure that only the minimum amount of vegetation is removed. This area was selected for camping/cabins because it had previously been used for these purposes and the design will make use of existing cleared areas. In addition, the design will factor in techniques to minimize user impacts such as pad creep and vegetation damage. There will potential impacts due to the expansion/improvements to the existing access road. This will include some tree removal and vegetaion clearing in order to create a two lane access road. The plans for the road will be designed to assure that the minimum amount of vegetation is removed and appropriate erosion and sement control measures are in place.

Within the Lake Recreation Area, the Master Plan proposes rehabilitation of the existing camping loops, construction of a warming hut/shower building and new parking lot near the park office, relocation of the contact station, maintenance area and the dump station and construction of new picnic areas and camping loops. One goal of the rehabilitation of the existing camping area will be to protect existing vegetation and add vegetation to the camp sites. With the exception of the new campground and picnic area, all new development has been located in existing cleared or previously disturbed areas. For example, the maintenance area will be located in a former gravel mining area.

The proposed new development in the area between Route 9 and Old Saratoga Road will require vegetation removal. The new picnic area, camping loops, road network and dump station will affect approximately 15 acres. The picnic area, road and dump station will require clearing of approximately 7 acres of trees and shrubs. Some of the area will be revegetated with lawn and landscape plantings. The campsite area will require clearing of trees and shrubby vegetation. As with the Potter's Point area, this are does not affect any significant ecological communities or rare plants or animals. The design will minimize vegetation removal and factor in techniques to minimize user impacts such as pad creep and vegetation damage.

All new plantings in all areas of the Park will use native, non-invasive plants. In addition, wherever appropriate, non-native and/or invasive plants will be removed and replaced.

The large expanses of unfragmented forest in the park provide significant bird habitat. Recognizing the importance of these areas to providing habitat, a large portion of Moreau Lake State Park has been proposed for designation as a NYS Bird Conservation Area (BCA)(refer to Map 14). A Management Guidance Summary (MGS) has been prepared for the BCA which identifies operation and management considerations relating to protection of birds and bird habitat in the park. In particular, the Bald Eagle, a federal and state listed threatened species, uses the Hudson River below the Spiers Falls dam during the winter. During mid-winter of 2004-2005, park staff, in coordination with the NYS DEC Endangered Species Unit, monitored Bald Eagles in the Park along the Hudson River. At least 10 eagles were observed between Sherman Island Boat Launch and the Spier Falls Boat Launch.

Winter trail use, including snowmobiling, has been and existing activity within the portion of the Park that is in Warren County. This use is local in nature and low in numbers. Vehicles and trailers park along the shoulders of Hawk Road. The proposed plan will provide a parking area for 10 cars and 5 car/trailers that will accommodate those few users currently parking along Hawk Road.

Presently, the informal trail use will remain the same. The Master Plan calls for a trails plan for the Warren County portion of the Park. This trails plan will consider the creation of a looped trail system that can be used by all trail users, including snowmobiles, cross-country skiers and snowshoers. This trails plan will be subject to supplemental environmental review. The trails plan will provide improved recreation experiences for snowmobilers and other trail users. However, this trails plan is limited to the park and will not be connected to or part of any larger trail snowmobile trail system.

It is OPRHP's understanding that wintering Bald Eagles adapt to existing environmental conditions including recreation uses. Thus, the Bald Eagles and existing snowmobile use have co-existed for many years. Since the Master Plan does not specifically propose an increase in snowmobile use, the current coexistence of eagles and snowmobilers is expected to continue at the same level.

Most of the existing snowmobile trail use on the Warren County side is set back about 1/8th of a mile from the shoreline. While there is a small segment of the trail system that comes as close as 85 feet from the shoreline, the continuation of snowmobile use as has occurred over many years is not expected to impact the numbers or behaviors of wintering Bald Eagles. The Agency will continue to monitor Bald Eagle activity in the Park along with snowmobile and other trail uses within the Warren County Management Area. OPRHP will consult with the Endangered Species Unit at the Department of Environmental Conservation on all matters pertaining to Bald Eagles, use and protection.

As identified in the MGS, potential impacts to the Bald Eagles from any new activity, in particular winter use, along the Hudson River will be evaluated as plans are developed. As noted above, this will include the Trail Plan for the Warren County area. OPRHP will also continue winter monitoring and will consult with NYS DEC staff on any new activities planned in the Hudson River area.

In addition to the proposed BCA designation, the importance of the natural resources within Moreau Lake State Park are also recognized with the proposed designation of portions of the park as a Natural Heritage Area (NHA) and as a Park Preservation Area. The Master Plan proposes that the hemlock-northern hardwood forest and the calcareous talus slope woodland communities within the Warren County and Palmertown Mountain Areas be designated as an NHA. The Palmertown Mountain Area of the Park is proposed for designation as a Park Preservation Area recognizing the area contains a significant ecological and scenic resources.

Cultural Resources

Archeological surveys of Moreau Lake State Park indicate that the potential for the park to have prehistoric cultural resources is moderate to high. Therefore, all projects proposed in the park will require additional review to determine if there will be potential impacts to cultural resources. The archeological surveys for the park will be reviewed and park/regional staff will consult with OPRHP's Historic Preservation Field Services Bureau to determine if

any additional testing is required. If National Register eligible prehistoric or historic-period cultural resources are potentially impacted by projects within the Park, an evaluation of those effects would be made. If adverse effects are identified, measures would be taken to redesign projects in order to avoid the resources, or mitigation measures would be adopted. Mitigation might include archaeological data recovery and/or architectural recordation, and appropriate related research, interpretation and preservation programs.

The park also contains several structures or the remains of structures pre-dating 1950 within the park. The only structure potentially affected by the implementation of the master plan is Schoolhouse No. 7 which is located within the existing maintenance area. The Master Plan proposed reusing this structure as an interpretive center. The building has already had some alteration as a result of its proximity to the maintenance area. Use as an interpretive center should not have any significant adverse impacts.

Scenic and Aesthetic Resources

As noted previously, Moreau Lake State Park is to be classified as a Scenic Park under the State Parkland Classification System. For this reason, maintenance of the scenic and natural character of the park has been a primary consideration of the Master Plan/Final Environmental Impact Statement. Overall, the Master Plan will have beneficial impacts on the scenic resources of the Park. The Park will continue to provide a scenic backdrop for visitors using the trails and recreation areas. New facilities will be sited in such a way that they take maximum advantage of existing scenic features such as lakes and wooded areas, yet will be located so that they do not intrude on currently undeveloped viewsheds. Finally, in addition to encouraging the preservation of scenic resources within the park, it is also a goal to preserve and enhance views from the park. Park management shall encourage relationships with surrounding property owners – internal and external to the park – to maintain and enhance the scenic quality of their properties.

Public Health

Public health and safety are an important element in park operations. Facility design and construction will meet applicable health and safety codes, including compliance with the Americans with Disabilities Act. OPRHP's Recreation Services program places strong emphasis on visitor safety. For example, lifeguards at State Park beaches must be certified through safety training programs such as Red Cross Advanced First Aid and CPR. In addition there is ongoing monitoring of beach water quality as well as providing safe drinking water.

Unavoidable Adverse Effects

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 improvements to the boat launch sites, the reconfiguration of the entrance area and some improvements to park roads and trails and new camping areas. There is also a small potential for water quality impacts due to increased surface water runoff from impervious areas. These two factors, however, will be monitored by Park personnel 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 (i.e., fugitive dust, noise from construction machinery, etc.) associated with construction of proposed improvements.

Irreversible and Irrecoverable Commitments of Resources

The planning, development and implementation of a Master Plan for Moreau Lake State Park, including additional infrastructure and a slightly expanded trail system has and 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 Moreau Lake State Park Master Plan will result in 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 recreation resources, scenic open spaces, and natural habitats. There will be positive, on-going, economic impacts to the communities surrounding Moreau Lake, in the form of increased business investment in the communities. Tourism related expenditures, for activities such as camping, day-use and fishing, are a major element in the economic vitality of localities. Moreau Lake, with its significant natural resources and its location near major interstate, state and county roadways, helps to make this a reality.

Supplemental Environmental Review

Portions of this Final Master Plan/EIS, such as the trails plan, are somewhat general or conceptual. Decisions regarding the type and extent of certain actions will be dependent on the findings from more specific studies or analysis still to be completed. For example, proposed development of a picnic area and car-top boat launch off Corinth Road on the Warren County shore may require site specific traffic analysis in addition to securing rights to access the property. The findings from these site specific evaluations may identify impacts that were not adequately addressed in this plan/EIS. Under such a circumstance, an additional or supplemental environmental review will 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 plan and 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 as likely to require additional review under SEQR.

Any new actions not addressed within the Master Plan that do not meet the Type II categories with Part 617, the rules and regulations implementing SEQR;

- Any change from the preferred alternative for recreational and facility elements of the plan which would result in significant environmental impacts;

- Any leases, easement, 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 plan;
- Preparation of a Trail Plan, including primitive camping, for the Warren County Area of the park;
- Development of a picnic area and/or car-top boat launch off Corinth Road in the Warren County area of the Park.
- Any proposal which results from Saratoga County's study of water supply needs that affect state park land.

