

## **Chapter 7: Environmental Impacts and Mitigation**

### ***Introduction***

Consistent with the intent of the State Environmental Quality Review Act (SEQRA), environmental factors were considered in evaluating the plan alternatives and in selecting the preferred alternative, i.e., the Draft Master Plan, which is described in Chapter 7. This chapter focuses on the environmental impacts and mitigation of adverse effects. For the purposes of SEQR compliance, however, the entire document (Master Plan/DEIS) satisfies the requirements for an environmental impact statement as specified in Part 617, the rules and regulations implementing SEQR. The environmental setting of Hallock State Park is discussed in Chapter 3; Chapter 5 contains the alternatives analysis.

This chapter has two primary parts: a summary of environmental impacts associated with alternatives; and a more detailed analysis of impacts associated with implementation of the Draft Master Plan, including a discussion of mitigation measures.

### ***Impacts of Alternatives***

In Chapter 5, alternative management and development directions were developed for the park using information on existing conditions, the analysis of recommended directions for activities, and constraints and considerations identified in the resource analysis. The preferred alternative for the entire park (i.e. the Draft Master Plan) consists of the best alternative for each identified activity and resource.

Much of the information on the environmental impacts of alternative actions is presented in Chapter 5. The following is a summary of the findings from the impact analysis.

### **Status Quo Alternative**

The Status Quo alternative consists of the current facilities and practices as described in Chapter 3 (Environmental Setting). Under this alternative, the current resource protection and facility management practices would continue. Currently this is an undeveloped park. Activities that currently occur there, such as unauthorized ATV use, would be more likely to continue and the use and impacts of existing uses that have adverse impacts would be more difficult to control without an operational presence, but enforcement would continue to be addressed. Also there would be no protection of significant features from any harm.

While resources such as threatened and endangered species will continue to be protected, other natural resources may be degraded without adequate planning and measures to assure their preservation.

The Status Quo alternative would result in no disturbance from proposed development, including roads, parking, buildings and infrastructure needs. While this alternative would ostensibly not result in any additional adverse environmental impacts, the potential for long-term indirect adverse environmental impacts is likely, since there would be no plan to guide use and implement protection measures. It is predicted that additional demands will be placed on the park's resources. Projects that may be undertaken on an as-needed basis would require individual reviews under SEQR. The Master Plan directs the manner in which use and development should proceed to protect sensitive areas of the park and reduce the potential for adverse impacts on environmental resources. It also lays out what projects may proceed under the Master Plan/EIS as well as those that may require additional review. Natural resources may be degraded without adequate planning and measures to assure their preservation.

The Status Quo alternative is also not consistent with OPRHP's intent to develop Hallock State Park so that visitors and residents can experience the park. The need to provide access to all patrons wishing to visit the park would not be met.

### **Preferred Alternative and the Draft Master Plan**

The preferred alternative is the compilation of the preferred recreation activity, development and resource stewardship options identified during the Analysis and Alternatives process summarized in Chapter 5. The compilation at the end of Chapter 5 and within Chapter 6 was subject to a final evaluation (or synthesis) to assure that there was consistency among the various alternatives. The draft master plan, described in Chapter 6, provides considerable recreational and resource protection benefits. This Draft Master Plan/EIS also identifies potential adverse impacts, both short and long term, as well as ways to minimize, if not eliminate them to the fullest extent possible through appropriate mitigation measures. Impacts and mitigation, in addition to information provided in Chapter 5 are discussed in the following sections.

The preferred alternative will also result in actions that will have lasting impact on the land (i.e. development of roads, buildings, and infrastructure). Though these are permanent land use changes, they will be designed to occur in sustainable ways so as to minimize negative impacts. From a long-term perspective, implementation of the master plan will result in beneficial environmental impact by insuring that the most sensitive areas of the park will be identified, monitored and provided appropriate stewardship and that the ecosystems and the services they provide are maintained, preserved and protected.

### ***Potential Environmental Impacts associated with Implementation of the Master Plan***

#### **Classification**

The proposed park classification of Jamesport State Park as a Park Preserve will guide the type and intensity of uses and protect park resources now and in the future, and provide an expectation to the public on what to expect when visiting the park.

#### **Designation**

With the designation of the park as Park Preserve under Park law, Hallock State Park Preserve and its natural and cultural resources will be better recognized and protected.

The Natural Heritage Area (NHA) designation proposed for the significant ecological community of Hallock's Pond and 100-foot buffer area surrounding the pond will create greater awareness of the significance of the resource as well as ensuring that this area continues to support native plants and animals (including state threatened or endangered). The NHA designation will provide guidance for the development of protection/management strategies for the pond. This will help protect the quality of the pond and adjacent habitat, thus playing a significant role in protecting the biodiversity of Long Island and the state. Additional recognition of the importance of the pond will also be promoted through education which, in turn, promotes sensitivity and stewardship by the public.

The further assessment of bird populations and their use of the park, as the plan is proposing, could lead to the designation of the park or part of the park as a BCA, and if so designated, a management guidance summary would provide for the protection of the BCA resources.

## **Park Name**

Hallock State Park Preserve will give the park a more appropriate place-based title and will provide name recognition to both its preserve focus and the important resources of the pond.

## **Transportation, Access and Traffic**

The Master Plan proposes a one-way park road system. Various alternatives were explored and discussed in Chapter 5. The preferred option offers the safest solution, minimizes the width of disturbance, and works within the narrow rights-of-way (ROW) from Sound Avenue to the park proper. The western ROW is currently paved but would need to be improved. The eastern ROW, while never paved, was extensively used for heavy truck traffic during sand mining in the 1970s. As a result, approximately two-thirds of the proposed road is either already disturbed or paved. Pervious paving materials will be used. Trees will be retained to the extent practicable and appropriate native landscaping provided. OPRHP will need to work with appropriate agencies, such as DOT and the adjacent towns, regarding modifications to the park entrance.

Archeological investigation will take place during design to properly consider any cultural resources prior to construction. Impacts to important archeological resources will be mitigated if avoidance is not possible.

Within the park, vehicular access using pervious surfacing is proposed to provide access above, but closer to, the shore. Limited parking would be provided for accessible spaces, but otherwise it is intended that this beach parking be a drop-off point. There are many benefits to using pervious surfaces, primarily to allow rainwater to percolate through the surface back into the ground water supply and to reduce potential for erosion and runoff, but they may also have drawbacks with respect to installation and maintenance. There are a number of alternatives for such surfacing, including geotextiles, porous asphalt, porous concrete, plastic grid systems, and block pavers (Scampini 2005). Additional analysis of appropriate pervious surfacing will be conducted during the design phase.

Traffic calming measures and speed limit signs will be installed to encourage users to stay within the designated speed limits. Access and safety measures for pedestrians and bicyclists will also be taken.

Proper design of the road is necessary to reduce the risk of runoff and erosion. Additional planning for this action is necessary in order to assure protection of Hallock's Pond and associated wetlands. OPRHP will coordinate with permitting agencies as needed.

Parking areas were carefully selected to use disturbed areas of the park. The master plan proposes a main lot with approximately 75 spaces. During site-specific design of parking areas, consideration will be given to inclusion of landscaping. Drainage will be included within the design and may include such techniques as vegetated swales to reduce runoff and erosion from the lot. Site-specific design will make every effort to provide greater than the minimum 100-foot buffer from Hallock's Pond.

Trail locations are approximate and will be evaluated more thoroughly during design. The existing trail that is adjacent to Hallock's Pond would be rerouted to divert pedestrians away from this sensitive area, particularly the designated wetland. Proposed new trail areas will be field checked by OPRHP biologists before constructing to assure protection of species and to avoid habitat fragmentation to the greatest extent possible.

## **Recreation and Park Development**

Implementation of the Master Plan will result in substantial beneficial recreation and open space impacts. The plan outlines improvements to recreation facilities and visitor amenities, including a

nature center, providing general public access to areas of interest in the park such as Long Island Sound (LIS), while protecting sensitive resources.

The proposed nature center will provide services including interpretive exhibits. Interpretation provides a recreational activity while increasing awareness and promoting protection of important resources. Signage and interpretation, guided and self-guided tours will provide visitors with an understanding of the history and natural resources of the park.

Two comfort stations will be provided; one as a part of the proposed nature center, and one as a composting comfort station at the beach access site.

A small accessible parking lot and an accessible path to the shore have been proposed to ensure all park patrons can access this scenic area of the park. This lot will also provide more convenient access for school groups, fishermen, Scuba divers with permits, and beach users. The composting comfort station will obviate the need for water and septic system and also limit potential adverse impacts from effluent and installing utilities.

Observation areas will provide visual access to scenic resources of LIS. Observation areas for Hallock's Pond will control access to this area, lessen potential impacts of visitors to the pond, and improve the visitor experience. Any needed permits will be obtained for this work and special care will be taken to preserve and protect the fragile ecology of this area.

Sustainable design will be incorporated into planning through energy efficient design of the new park buildings, as well as exploring the potential for on-site energy generation such as photovoltaic panels. Design of park facilities will also take sustainable siting into consideration. Refer to Sustainability in Chapter 6 for more information on this subject. These efforts will demonstrate OPRHP's commitment to sustainability and will minimize the impact of the proposed park development and use to the minimum extent practicable.

The trail system will be defined with clearly marked, designated loop and linear trails. The system will utilize existing and/or improved trails where it is operationally and environmentally appropriate. Refer to the Trails section of Chapter 6 for information concerning trail planning, standards, maintenance and monitoring. Trails will be routed carefully to avoid impacts to sensitive park resources. Also, as indicated in Chapter 5, trails will be kept as natural as possible while meeting erosion control and other standards. Most trails will be developed with pervious materials; a few will be boardwalks or possibly other materials for protection of resources, as needed in particular areas.

Coordination with volunteer groups and individuals for the maintenance of the trails system will be implemented as well, which will help to insure proper trail maintenance.

The Master Plan also proposes to allow car-top vessels, canoes and kayaks at LIS by permit only. Launching must be performed by carrying craft to the Sound; patrons will not be allowed to drive to the Sound. In keeping with measures to protect the park's natural resources, launching and other recreational activities would not be permitted in certain designated areas such as endangered species nesting areas.

Continuation of seasonal permitting of equestrian use will assure that equestrian use has limited conflicts with other users as well as impacts on park resources, while maintaining safety and assurance of compliance with existing equine regulations. Horses will be allowed on the beach during permitted seasonal equestrian use unless there is a concern or environmental issue that would be complicated by their presence.

## Land

The Master Plan and master plan process places emphasis on preservation of the sensitive natural and cultural resources of Hallock State Park. Planning for new facilities reflects this emphasis, and these facilities will avoid highly sensitive areas to the greatest extent possible. It is inherent, though, that the plan and its implementation will result in some physical change and disturbance to the land, particularly where new parking, recreation facilities and trails are constructed. This section of the plan provides additional information and guidance on construction of park facilities to limit these impacts and assure compatibility with the proposed Park Preserve designation. Most of the park will continue to remain in its natural state, retaining open space.

Proper design of the road and parking areas is necessary to reduce the risk of runoff and erosion. Proper drainage is also essential to retain water on site and assure that there is no runoff or sedimentation to any sensitive park resources, and no effects to Hallock's Pond or LIS. Construction will primarily take place with areas of slight slope and careful planning and site-specific design will be needed for any steeper areas, such as the road to the accessible parking lot.

Any projects that disturb one acre or more, such as the road and primary park facilities such as including the nature center, will be subject to the State Pollution Discharge Elimination System (SPDES) General Permit Process. This process involves the development of a site-specific Stormwater Pollution Prevention Plan (SWPP) including sedimentation and erosion control plans. Best Management Practices (BMPs) as described in the New York Standards and Specifications for Erosion and Sediment Control (NYS Soil and Water Conservation Committee, 2005) will be used to reduce impacts to soils due to master plan projects. Some measures anticipated to be used include: minimizing soil disturbance and vegetation clearing; the use of silt fencing, straw bales or other similar technology where needed; preservation of vegetated buffers; and seeding and mulching of disturbed areas as soon as possible following work.

Design of facilities will utilize landscape and vegetative swales to the greatest extent possible. The new parking facilities will be located in previously disturbed areas that do not contain sensitive resources. The road from the main parking area to and including the beach lot will use pervious pavement to minimize runoff impacts in this area of the park.

New trail sections may require some vegetation removal and grading. Disturbance will be limited primarily to the required width of the trail corridor. The policy and guidelines for trail building, which have been established by recognized trail organizations and governmental agencies, will be followed. A compilation of standards that OPRHP uses is provided in Appendix C. These established guidelines will assure that work will be completed in a manner that maximizes the protection and preservation of the resources of the park.

Boardwalk trails will be used in areas where there are sensitive ground resources, such as on the maritime dunes, which need to be protected. This will minimize erosion, trampling and the potential for visitors to want to go "off trail."

New buildings which are proposed such as the nature center, maintenance area and park manager residence as well as the parking lots and roads, will be designed and sited to incorporate sustainable sites aspects. Most of the park will continue to remain in its natural state, retaining open space. Currently no formal recreational opportunities exist within the park. The formalization of activities that a park preserve can support, as identified in the master plan, ensures that natural resources, such as the dunes, wetlands, Hallock's Pond, and the hoodoos are protected.

Below (Table 3) is a listing of the land area to be affected by implementation of the master plan. In all, approximately nine acres will be modified within the 225-acre park that will be converted to

paving, structures, or mowed area. Approximately three acres of successional maritime forest along the southern portion of the main park site will be affected, out of over 100 acres in the park.

**Table 3 - Land Area Affected by Master Plan Implementation**

APPROXIMATE ACREAGE	PRESENTLY	AFTER COMPLETION
Meadow or Brushland /shrubland (Non-agricultural)	60.0 acres	58.0 acres
Forested	115.5 acres	111.5 acres
Agricultural (Includes orchards, cropland, pasture, etc.)	2.0 acres	1.0 acres
Wetland (Freshwater or tidal as per Articles 24, 25 of ECL) (CA delineation at Hallock's and Lily Pond from topo map)	1.9 acres	1.9 acres
Water Surface Area (Hallock Pond & Lily Pond)	4.6 acres	4.6 acres
Unvegetated (Rock, earth, or fill)	14.0 acres	12.0 acres
Roads, buildings and other paved surfaces	1.0 acres	9.0 acres
Dunes	6.0 acres	6.0 acres
Mowed	1.0 acres	2.0 acres
Other (Indicate type) <b>open beach and adjacent vegetated bluff</b>	19.0 acres	19.0 acres

### Water Resources

Long Island Sound is Hallock's water boundary to the north of the park. Hallock's Pond, located in the park, is another body of water that may be impacted by activities in the park. These elements are important water features for both aesthetic and natural resource value. In fact, the LIS provides over \$5.5 billion annually to the economy. Any activity in the park that disturbs soil or releases elements onto the ground can have impacts on these water bodies. Site-specific design will take into consideration more detailed topographic contours and ground conditions to assure that care is taken to avoid any drainage into these waters. Preventing and minimizing releases in the Hallock "watershed" is imperative to preserving the unique character and services that Hallock's Pond, Lily pond and LIS provide to both the park and surrounding communities.

Hallock's Pond and the surrounding wetland complex are being protected by providing a minimum 100 foot buffer area around the pond, where no development will occur. This means roads, building and other facilities will be located outside this area. For the purposes of environmental education and interpretation, a trail/observation area may be located near the pond but the design ensures that the pond and water quality will not be impacted.

OPRHP's Water Quality Unit (or other agent of the agency) will continue water quality testing of Hallock's Pond before, during and after construction of trails, buildings and roads, as well as after the park is opened for use by visitors, to ensure that no negative impacts to this water body occur. Long Island Sound will be protected thru watershed best management practices; no development is proposed along the shore.

Subsurface/groundwater flow has been preliminarily evaluated in connection with existing information, and does not presently appear to flow from the proposed nature center towards sensitive pond resources. Additional study will be performed during more detailed design of the building to assure that development will not impact groundwater of Hallock's Pond, as preservation of the coastal plain pond community is integrally related to maintenance of the quality and quantity of groundwater flow. The protection of groundwater quality will also need to be paramount in developing the proposed septic system, and careful onsite planning and design of this system will be performed. This system will also be subject to approval by the Department of Environmental Conservation.

Consultation with the OPRHP regional biologist as well as Heritage Program staff will take place to identify any important natural communities or species in these areas, prevent their disturbance, and ensure their preservation. If any areas require more than routine measures, these will be identified

through the trails approval process and remedies will be planned in conjunction with park and regional staff. Such work would include the construction of culverts and/or boardwalks. Some projects, such as work next to wetlands, may require additional consultation and permits from the NYS Department of Environmental Conservation and/or the US Army Corps of Engineers. The regional staff will review all these types of proposals and consult with these agencies as appropriate.

All plans will be reviewed to assure that stormwater management and sediment and erosion control measures, as well as biological considerations, are incorporated into design and construction. Following construction, the trails will be monitored to ensure that drainage and erosion control measures are working effectively.

Currently there are minimal paved areas of the park, although the western access road is paved. Plan implementation would involve additional paving to provide safe and convenient access to the park. The proposed plan will result in eight additional acres of pavement (parking, roads) or other hard surfaces (structures). Permeable materials will be used whenever practicable with respect to cost and operations. The roads and main parking lot at the nature center would have drainage infrastructure to mitigate storm runoff (refer to discussion below). In addition, the proposed accessible lot would utilize pervious surfacing and any needed drainage control features. Green design will be utilized for the buildings to minimize effects of roof runoff.

An increase in impervious surface could result in an increase in the quantity and velocity of runoff generated during storm events. A variety of measures will be taken to reduce the quantity of wastewater and stormwater and to manage stormwater on the site; these are summarized in Chapter 6 under Water Conservation and Stormwater Management. Surfacing and drainage alternatives will also be examined during site-specific design of the main parking area. Porous pavements can significantly reduce the quantity of runoff from parking areas following storm events and appropriate alternatives should be considered where site conditions are suitable. Other measures that will be taken to avoid or minimize impacts to surface water drainage and quality include the following: clearing and ground disturbance for any proposed park improvements will be kept to the minimum necessary to complete the required work; all disturbed areas will be seeded and mulched immediately following final grading to assure rapid re-vegetation of exposed soils; invasive species will be removed, allowing for regeneration of native species of plants; and restoration plantings will be provided where needed.

Operations and maintenance procedures for spill prevention and response will be implemented.

Any use of LIS by boat will be by non-motorized car-top, carry in vessels, which will minimize any toxic/ release spills into LIS. It is thus not expected that this use will have any negative impact.

## **Wetlands**

Adjacent areas of both ponds will be protected through the proposed buffer area. Trail sections located near the ponds and wetlands will be minimized to balance protection of the resource with the recreational and environmental education that the ponds can support. Through facility design, permitting procedures, control and prevention of invasive species and their introduction, protection from trampling of vegetation through the installation of a boardwalk, prohibiting dogs and other pets from the park, and interpretive signage, the ponds will be better protected from recreational and other impacts.

In addition, opportunity for environmental interpretation of the pond will be afforded by addition of an observation deck. Interpreting important resources such as Hallock's Pond will aid in increasing sensitivity of visitors to protection and stewardship.

## **Biological Resources/Ecology**

Overall, the Master Plan will have a positive impact on the natural resources within the park. Limited new development is proposed. Primary impacts of the plan are associated with access improvements, particularly the main entrance modifications and parking. Direct impacts to biological resources associated with these proposed improvements are planned in a manner to limit adverse impacts since proposed improvements have been generally sited in areas where there was previous disturbance or that have limited environmental sensitivity.

### ***Ecological Communities***

The importance of the natural resources within the park will be further recognized with the proposed designation of a portion of the park as a NHA. Recognition of other significant habitat occurrences that may not be covered under the proposed NHA designation is not necessary to protect these areas, as the entire park will have additional protections afforded it under its designation as a Park Preserve. This proposed NHA designation will help guide future management of the natural resources in the park of statewide significance and provide additional support to carry out recommendations in the Natural Heritage Program (NHP) report (Lundgren and Smith 2009). The designation of an NHA as recommended in the Master Plan will confirm the agency's commitment to retaining the natural character and condition of Hallock's Pond in particular, the only significant ecological community within Hallock State Park Preserve. Designation of the NHA will also promote recognition of this important community and provide for additional environmental interpretive opportunities. The area can be managed to further benefit the important natural resources the NHA designation recognizes.

Other natural communities could be improved in quality with proper management, including the maritime dune and bluffs. The draft Master Plan proposes strategies for management of these and other natural resources in the park that will improve their quality, and their quantity. Management recommendations within the NHP report (*ibid.*) as well as OPRHP NHP staff and the regional biologist will be consulted in development of more detailed management planning for these areas. Natural shoreline and dune restoration BMPs will enhance and preserve ecosystem function.

As noted in the latest Natural Heritage report for the park (*ibid.*), all of the natural community classes within the park have value for local and regional biodiversity.

Trail use is one of the main recreation activities that occurs within the forest areas in the park and has the most potential to affect these areas. Visitor education programs will be enhanced to emphasize the importance of these areas and the importance of remaining on marked trails. Proposed routes for new trails will be carefully located using appropriate design and construction methods. Measures will be taken to protect Hallock's Pond ecology, particularly by rerouting trails away from the edge of the pond.

### ***Plants***

The Master Plan will have beneficial impacts on the vegetation within the park. Management of the park will include control of invasive plants. The Master Plan will provide more formal recognition of management strategies to control invasive plants, particularly those affecting sensitive species and habitats. Prevention of new occurrences is included as an element of invasive species management within the plan, with an eventual goal to eradicate invasive species. Invasive species management will provide primary benefit to native plants by giving them more opportunity to persist in the park.

Proposed development of new recreational amenities will all be sited in areas of low environmental sensitivity or in ways that provide additional protection for these features. Facilities are generally planned for areas within currently disturbed areas, minimizing impacts to native vegetation.

Additional protection of important trees and other plants within the park will be afforded through establishment of a formal park.

Some limited tree removal will be required as a result of Master Plan implementation. In keeping with OPRHP's tree management policy (Ash 2009), the park will manage trees and forested areas where necessary to: protect public health and safety; maintain scenic, cultural, recreational, historic, and aesthetic landscape features; and conserve native biodiversity. Trees to be removed will be primarily non-native. Overall, recommendations in the Master Plan are written to minimize impacts to trees by careful siting of roads and areas to be developed. Any vegetation clearing will assure that the areas do not have rare species or habitats. Restoration and cleanup are important elements of any tree pruning or removal projects. Conditions following such pruning and/or removal should be as consistent as possible with the environmental and/or historic character of the affected area prior to the work.

The Master Plan calls for restoration of native vegetation in certain areas of the park. Any invasive species found in these areas will be removed and disposed of in a manner that will protect the existing native plants populations. Landscape planting will use plants indigenous to the area wherever possible. Selection of plant species or communities of species should be site specific, taking into consideration the natural, ecological, and aesthetic elements in the immediate areas, as well as the management goals of the park.

### **Animals**

Invasive species management under the plan will benefit native animals as well as native plants. Since the native species in this area have been coexisting and have adapted together over many years, the relationships that have evolved will be a benefit to both native plant and animal populations.

The proposed Master Plan will result in some areas of additional development, balanced with additional protection afforded fish and wildlife resources through establishment of the Park Preserve and the NHA.

The habitat and open space protected by these designations is a great benefit to wildlife in heavily developed Long Island. Since most impacts of the proposed plan will occur in areas that do not provide significant wildlife habitat, short and long term adverse impacts to fish and wildlife resources is not anticipated.

**Birds** – The BCA evaluation recommended in the draft Master Plan will provide recognition of areas deemed to be of significant value to bird populations. Regardless of whether a BCA is designated, conservation of endangered and threatened species will be a natural resource management priority. The region's plover stewards will continue to monitor the nesting area and will be consistent with the "Piping Plover Atlantic Coast Population Revised Recovery Plan" (Atlantic Coast Piping Plover Recovery Team 1996).). Refer to Rare Animals section below regarding endangered species nesting areas.

OPRHP will partner with others interested in bird conservation in the park, including Audubon New York and The Nature Conservancy, as well as regulatory agencies (DEC and USFWS).

**Other Wildlife** – OPRHP is developing a wildlife manual that will provide guidance to facility managers and other staff regarding wildlife issues. Part of this manual will address damage caused by wildlife, and when and how to take action to address any such damage concerns.

### ***Rare Animals***

Under the endangered species management strategy in the plan, existing efforts to protect terns and plovers will be continued and additional measures undertaken. Signs informing patrons of the sensitivity of the area will assist in protection efforts for the plovers and terns, and reduce potential for human disturbance of nesting areas. Enclosing nests on a routine basis to protect eggs from predators will enhance efforts to increase productivity of these nesting birds. Additional efforts to control predators as identified through a predator management protocol under development will assist in efforts to reduce loss of plover and tern chicks due to predation.

Damage and threats to plovers and terns will be documented and action taken as necessary to address such problems as nuisance wildlife and feral cats. Additional monitoring if necessary can be undertaken through wildlife camera monitoring and other enhanced efforts as needed.

Resource management at Hallock takes into account the Recovery Plan for the Piping Plover (ibid). OPRHP will continue to work closely with US Fish and Wildlife Service, DEC and other partners to protect piping plovers at Hallock and will utilize a region-wide management approach.

### ***Invasive Species***

Recreational uses such as fishing, boating and trail use, as well as activities adjacent to the park, can facilitate the spread of invasive species. Invasive plant seed can be inadvertently introduced on construction equipment and through the use of mulch, imported soil, gravel, and sod. Some invasive plant species may have been intentionally planted in erosion control, landscape, or wildflower projects. The known invasive species at the park points to the need for a management strategy, as proposed in the Master Plan, to address threats to resources that are posed by invasive species.

Invasive species management and preservation of Hallock's natural resources is an integral part of this Master Plan. Implementation of the overall invasive species management element of the master plan will focus on prevention, identification of invasive species, early detection and rapid response, and eradication from sensitive habitat areas. It is important to implement BMPs to minimize spread of invasive species. Practices such as proper material disposal and equipment cleaning methods limit the potential of invasive species to establish in new locations within and beyond a site. DOT has developed useful BMPs for invasive plant control (DOT 2009) that can be tailored to agency or park-specific projects and operations. In addition, while there are no invasive fauna, such as insect pests, known to occur at Hallock, precautions, including surveying and monitoring of at-risk trees, will be continued. Care will be taken that any such undiscovered fauna is not moved beyond park borders. Contractors removing wood products should be advised of firewood regulations and informed of sourcing and product labeling requirements. Educational information should be provided, including brochures, posters, bookmarks and other materials, for the contractors and for their use with customers.

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

OPRHP's invasive species program is based on the best available science, utilizing research on impacts of species and control methods. OPRHP will work closely with stakeholders including Long Island Invasive Species Management Area and volunteers, Hallockville Museum Farm, Audubon and others to monitor the extent and spread of invasive plants in these areas along the trails inside,

and on trails that connect to, the park. OPRHP will identify and implement appropriate control measures where needed.

OPRHP will institute management of data on invasive species in Hallock State Park, consistent with the agency's invasive species program, to facilitate setting measurable objectives and tracking success of control projects through monitoring. Adaptive management is undertaken based on results of monitoring. Efforts on education regarding the impacts of invasive species and efforts that may be undertaken by patrons will be provided as appropriate.

### **Cultural/Archeological Resources**

Until a comprehensive archeological survey is undertaken, any project that could affect archeological resources of the park will require site-specific survey. All such projects are reviewed by OPRHP Division for Historic Preservation in accordance with Section 14.09 of Parks, Recreation and Historic Preservation Law. Any measures to avoid or mitigate impacts to archeological resources or recommendations for additional archaeological surveys will be implemented.

Development will be designed to be consistent with adjacent historic resources and the agricultural and North Fork vernacular.

Improved signage and interpretive materials will improve understanding of the history of the park.

### **Scenic Resources**

Implementation of the Master Plan will not result in any significant adverse impacts on scenic resources in the park. The nature center will be placed away from the resources of Hallock's and Lily Ponds, LIS, the agricultural vistas and maritime beaches and bluffs. Additional opportunities for scenic vistas will be developed as a result of implementation of the master plan. Scenic vistas in the park will be maintained and improved. Cohesively designed signage will improve aesthetics in the park in keeping with its natural and historic resources. Facilities in the park will also be designed to be in keeping with the character of the community and adjacent historic structures, and to blend into the landscape as viewed from LIS.

Improvements as a result of the Master Plan, including removal of invasive species and establishment of native plants, will improve the scenic quality of the park. Restoration of the dunes will result in an environment that is less visually impacted by human uses, adding to the preserve feel of the park.

### **Air Quality**

Potential air quality impacts as a result of master plan implementation will be minimal. The park will develop approximately 118 parking spaces at the main parking area and minimal parking at the beach lot and for the maintenance area and residence. This access and use by visitors and staff will result in unavoidable increases in vehicle emissions, though major impacts to air quality impacting the park and surrounding areas is not expected to occur.

Short term temporary impacts that may occur as a result of master plan implementation could include a minor, temporary increase in vehicle exhaust and some generation of dust during construction periods. The construction period though will most likely take place over the period of at least a few years, and such impacts as fugitive dust will be of concern. Particular care must be taken to reduce the impact of construction on park users and to their recreational experience. Adjacent farming will likely have an ongoing air quality impact.

Air quality impacts from park vehicles and maintenance activities that may occur through operation of the park over the long term are unavoidable.

Long-term negative impacts to air quality as a result of the new nature center and its operation will be minimized as project design will incorporate energy efficiency measures.

### **Solid Waste Management**

For proposed actions in Suffolk County, an EIS must address impacts on solid waste management and the project's consistency with the state or locally adopted solid waste management plan. As garbage pickup would be by private carter, the garbage therefore does not impact the municipal system. The quantity of recyclables from the park, which would be taken to the Town's facility, is modest, but if it should ever pose a problem with respect to capacity, the park will make alternate arrangements for recyclables. OPRHP will assure consistency with the state's source separation requirements. OPRHP plans to develop a recycling plan for the park, consistent with the Agency's sustainability plan, to minimize waste generated.

Debris generated during construction of the Nature Center, comfort stations and other activities will be disposed of properly within guidelines for construction debris disposal.

### **Public Health and Safety**

Public health and safety are important considerations in park operations and OPRHP's Recreation Services program places strong emphasis on visitor safety. New or substantially rehabilitated facilities will be designed and constructed to meet applicable health and safety codes, including compliance with the Americans with Disabilities Act. Infrastructure systems such as electric, water, sewer, and lighting will ensure safety.

Vehicular and pedestrian safety will be enhanced through careful design of roads for vehicular traffic and pedestrians. Trails will meet all guidelines for patron safety and access. The proposed entrance and exit were carefully chosen from a safety standpoint. Traffic calming measures and speed limit signs will also help assure safety of visitors.

Design and construction of new facilities will meet all applicable health and safety codes.

Requiring day-use permits for launching hand-powered watercraft and for equestrian use will increase safety with respect to these activities and for safety of horses to assure proper vaccinations.

Information on ticks, fire danger and trail conditions should be posted as appropriate. Serious injuries or accidents may require the assistance of park police, or local fire protection or ambulance services.

### **Impact on Growth and Character of Community and Neighborhood**

The development of recreational opportunities and access to Hallock State Park Preserve will provide positive impacts to the community and neighborhood by providing open space, public access to significant natural resources, and recreational opportunities. Since this master plan represents the "opening" of the park for the public, it will provide opportunities not previously available.

Implementation of the Master Plan will likely result in a substantial increase in recreational use at 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, and important open space and natural habitats and character of the neighborhood. The size of the parking lot will limit the number of users. There will be positive, on-going, economic impacts to the communities surrounding the park, in the form of increased business investment in the communities. Tourism related expenditures, for activities such as day-use, trail activities and special events, are a major element of the economic vitality of nearby communities.

## **Use and Conservation of Energy**

Energy efficiency and potential for on-site energy generation was discussed under Sustainability in Chapter 6. There will be short-term use of fuel during construction, and some increases due to implementation of the Master Plan with additional public access. Measures will be taken to encourage alternative transportation to the park. The new nature center will utilize the latest sustainable buildings technologies, with the goal of being able to be certified by LEED if the Agency chooses to do that. The nature center, park manager residence and maintenance area will use energy to operate, but OPRHP, in keeping with its sustainability goals, will design these buildings to be as efficient as possible. It is not expected that these buildings will cause significant increases in the energy use of the area.

## **Unavoidable Adverse Effects**

The proposed Master Plan will result in some unavoidable adverse impacts. These will be monitored and action will be taken, if necessary, to prevent any significant impacts from occurring.

There will be temporary adverse air and noise impacts (such as fugitive dust discussed under Air Quality, and noise from construction machinery) associated with construction of proposed improvements.

Additional impervious surfaces will be added to provide access and parking. Pervious surfaces will be provided where operationally feasible and suitable for site conditions. Landscape, drainage improvements and bio-filtration swales will be among techniques utilized to reduce runoff, erosion, and infiltration of pollutants to groundwater.

## **Irreversible and Irretrievable Commitments of Resources**

Additional site-specific planning, development and implementation of the Master Plan, including construction of parking and access, facilities and trail system, will involve the irreversible and irretrievable commitment of public resources in the form of time, labor and materials.

Implementation of the Master Plan will also involve an increase in energy use for construction and operation of new facilities.

## ***Relationship to Other Programs***

### **Partnerships**

The Master Plan calls for strengthening partnerships with organizations operating in the region. As discussed earlier, Audubon Society could help monitor breeding and migratory birds in the park. Linkages with the Hallockville Museum Farm will be developed and the East End Horseman's and Livestock Association will continue to be a valued park partner. Coordination with volunteer groups and individuals for the maintenance of the trails system will improve connections with the community and with regional trail programs.

### **Plans**

**Towns of Southold and Riverhead** – The relationship between the park and the surrounding community is important. OPRHP will coordinate as needed on special events and other matters of mutual interest. See below for a discussion of the consistency of this plan with the Long Island Sound Coastal Management Plan.

**Long Island North Shore Heritage Area (LINSHA)** – As described in Chapter 2, a State-designated Heritage Area stretches the entire expanse of the North Shore of Long Island. In 2006, OPRHP received and approved the LINSHA Management Plan (LINSHA Planning Commission

2006). It is NYS policy to follow the recommendations in the plan and to ensure that actions by the State are reviewed for consistency with the Management Plan.

This Master Plan/Draft EIS for Hallock State Park and the associated implementation of the preferred alternatives described in this plan are consistent with the LINSHA Management Plan. The Management Plan calls for “preserving, protecting and enhancing the cultural, historical and natural resources of Long Islands North Shore” (ibid.). The Master Plan and preferred alternatives will preserve the heritage and historical resources of LINSHA including the archeological resources found within Hallock State Park. The Master Plan proposes actions that will protect the environmental, natural and maritime resources such as managing Hallock’s Pond and wetland, restoring maritime dunes, controlling invasive species and designating Hallock as a park preserve with an NHA within the park. The Master Plan preserves and enhances recreational and educational opportunities for residents and visitors to Long Island’s North Shore and enhances economic vitality and cultural life within the Heritage Area.

### **Sustainability and Ecosystem-Based Management**

This plan has incorporated the agency’s sustainability initiative and goals. Related to sustainability is using an ecosystem approach under the EBM program. This was discussed in Chapter 6 under the Relationship to Other Programs section. Energy efficiency and potential for on-site energy generation was also discussed under Sustainability in Chapter 6. Installation of recycling bins in the park and active recycling efforts will be done in concert with public education. This will increase public awareness of the need for recycling and increase sustainability beyond park borders.

Overall the Master Plan is designed to limit impacts to the environment and provides modest improvements to respond to the needs of park users. Although there will be an increase in formalized parking, design will mitigate impacts of both existing and new parking, and use will be within the carrying capacity of the park, as well as the adjacent areas.

### **Coastal Zone Management Program Consistency**

For a state agency action in the coastal area, an EIS must address the action's consistency with the applicable state coastal policies, or when the action is in an approved local waterfront revitalization program area (LWRP), with the local program policies. The coastal program applicable to Hallock State Park is the Long Island Sound Coastal Management Program (LIS CMP) approved by the NYS Department of State in accordance with Article 42 of the New York State Executive Law and 19NYCRR Part 601. A small portion of the park is located within the Town of Southold, which also has an approved LWRP. Minimal development, a loop trail towards Howell’s Spring, will be included within the Town of Southold. Consideration of the Southold LWRP (2004) is included as applicable within this section.

OPRHP has reviewed the LIS CMP and Southold policies and has determined that the plan is consistent with the CMP and LWRP.

### **Developed Coast Policies**

- Policy 1 Foster a pattern of development in the Long Island Sound coastal area that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of a coastal location, and minimizes adverse effects of development.
  - Open space and natural resources will be preserved by siting most park development within formerly developed or disturbed areas.

- The project will strengthen the recreational assets of the Riverhead and Southold communities.
- The project is consistent with policy 1.2, to ensure that the development takes appropriate advantage of its coastal location. As a water-enhanced use, the project will reflect the unique qualities of a coastal location through appropriate design and orientation.
- The project will maintain and enhance natural areas, recreation, and open space lands, consistent with policy 1.4.
- Environmental, aesthetic and open space values associated with this area will be maintained by landscaping the site with native species, as well as undertaking restoration activities.
- Potential adverse land use, environmental and economic impacts that would result from proposed development have been minimized. Adverse impacts will be avoided or minimized to the maximum extent practicable.
- Policy 2 Preserve historic resources of the Long Island Sound coastal area.
  - Any actions that may impact known sites or areas of archeological sensitivity will be evaluated for further study in accordance with the procedures of the State Historic Preservation Office (SHPO).
  - Any actions that may impact the historic resources of the park will be evaluated by the SHPO.
- Policy 3 Enhance visual quality and protect scenic resources throughout Long Island Sound.
  - Aesthetic and scenic values of this public land will be protected by minimizing the amount of land used for the Nature Center, and through preservation of existing vegetation and additional native landscaping.
  - Through careful site layout and building design, the project will be compatible with coastal and nearby cultural resources. The opportunity for visual access to the water will be enhanced by providing partial views of LIS on designated trails. Scenic characteristics of the site, particularly views of the Sound and adjacent farm land, will be enhanced and protected by minimizing introduction of discordant features.
- Policy 4 Minimize loss of life, structures and natural resources from flooding and erosion.
  - Development and structures are located away from the shoreline and out of floodplain areas or areas potentially susceptible to future sea level changes (Policy 4.1, 4.6).
  - The shoreline will not be modified in any way (i.e. no hard structures such as sea walls will be built) and the shoreline is to be “managed” passively, allowing for natural processes to occur (Policy 4.1, 4.2).
  - Maritime dunes and bluffs will be protected, restored and maintained to provide natural protective features (Policy 4.2).

### **Natural Coast Policies**

- Policy 5 Protect and improve water quality and supply in the Long Island Sound coastal area.
  - The project will ensure effective treatment of sanitary sewage by managing properly designed on-site disposal systems.
  - Although there are no streams on site, drainageways upslope of and in the park have in the past caused erosion of soil. Active management has taken place to address the

worst source of erosion, and additional site planning will address any other situations causing erosion on the site. Natural characteristics of drainage systems will be maintained while protecting areas particularly susceptible to erosion and sediment loss.

- Coastal waters, as well as Hallock's Pond, will be protected during construction through the use of BMPs to control runoff and erosion caused by site disturbance. Long term impacts of the project will be limited through drainage systems designed to prevent cumulative water quality impacts upon the watershed.
- The quantity of potable water will be conserved through use of existing public water that has adequate supply to meet user needs.
- As indicated under Potential Environmental Impacts associated with Implementation of the Master Plan – Water Resources in this chapter, subsurface characteristics will be assessed in detail during the design phase to identify issues with erosion or groundwater infiltration. Vertical "French" drains could be employed to control groundwater migration, if necessary.
- Recharge of the aquifer will continue and quality will be preserved by careful site planning to avoid adverse impacts to groundwater, and by preservation of surrounding vegetation.

The Southold LWRP includes a goal to preserve the Town's farming blocks in order to protect farming operations, to limit the need for additional drinking water in these areas, and provide, through agricultural best management practices, a continual improvement to the groundwater quality in the area. As described in Chapter 3, Hallock State Park was established under a unique partnership to protect agricultural lands. Agency policies and cooperative actions under the plan with adjacent landowners will promote the use of alternatives to pesticides and other measures to protect groundwater quality.

- Policy 6 Protect and restore the quality and function of the Long Island Sound ecosystem.
  - The project has been sited so as not to disturb the least amount possible of existing shrubs and trees.
  - Indigenous plants will be retained as much as possible and added under the project.
  - Impacts to forest cover have been minimized under the proposal.
  - The values associated with natural ecological communities will be protected by siting the project in a previously disturbed area.
  - Corridors between natural ecological communities will not be fragmented.
  - No significant coastal fish and wildlife habitat; wetlands; or vulnerable fish, wildlife or plant species, will be affected.
  - The project will enhance activities associated with appreciation of natural resources through the nature center and associated environmental education and interpretation activities.
  - Adequate buffers will be maintained between the wetlands and nearby uses and activities.
  - The rare ecological communities and species at Hallock will be protected through a Natural Heritage Area designation as well as periodic updates to endangered species management plans.

- The education and interpretation opportunities that will be provided will enhance and improve the sustainable use and appreciation of natural resources by park visitors.
- Policy 7 Protect and improve air quality in the Long Island Sound coastal area.
  - Pollution resulting from vehicle movement or operation will be limited through design and improvement of entrance/exit and parking facilities.
  - New parking is of a limited scale (approximately 118 spaces) and will not contribute significantly to pollutant loading.
- Policy 8 Minimize environmental degradation in the Long Island Sound coastal area from solid waste and hazardous substances and wastes.
  - The amount of solid waste generated through construction and operation of the Nature center will be of modest amounts and managed through reuse/recycling and approved disposal methods.
  - Minor petroleum discharges on access roads and parking will be managed through proper design of drainage systems, as well as best management practices for the park's operations.

### **Public Coast Policies**

- Policy 9 Provide for public access to, and recreational use of, coastal waters, public lands, and public resources of the Long Island Sound Coastal area.
  - The public's use and enjoyment of public lands will not be limited, and indeed the project will enhance and define convenient physical public access for water-related and enhanced recreation.
  - Enhancing access and recreational use in this population center is appropriate and takes into account resource sensitivity and compatibility with on-site and adjacent land uses, including trails, residential, recreational and cultural uses.
  - Local and regional benefit will be derived from this project through environmental and access enhancements. The project would not result in a barrier to public access or existing or potential water-related recreational use of the area.
  - The proposal protects, maintains, and improves access to the water. Park enhancements that will take place through this project will facilitate public recreational use of this land near the shore of LIS.

The Town of Southold LWRP (2004) identifies Sound View Avenue as offering unique scenic vistas and is part of the Town's Sea View Trails network, which highlights the most scenic walking and bicycle routes within the Town. A specific policy within the LWRP states: *Provide physical access linkages throughout the Town of Southold among public access sites, open space areas, public trust lands, and nearshore surface waters.* The Sea View Trails of the North Fork network is a part of the Intermodal Transportation concept that calls for a comprehensive approach to transportation planning that utilizes all the available transportation hubs and linkages in an effort to reduce the increasing traffic pressure on the Town's road network. The LWRP indicates that wherever possible, the trail will utilize public lands. The Hallock State Park Master Plan includes linkages and connections with such local trail networks.

## **Working Coast Policies**

- Policy 10 Protect Long Island Sound's water-dependent uses and promote siting of new water-dependent uses in suitable locations.
  - The project will not impair existing nearby water-dependent uses.
- Policy 13 Promote appropriate use and development of energy and mineral resources
  - Policy 13.1 Conserve energy resources- Energy resources will be conserved through energy efficient design.

## **Summary**

Based on the foregoing coastal policy discussion, it is OPRHP's initial determination that the action will not substantially hinder the achievement of any of the policies and purposes of the LIS CMP.

## ***Supplemental Environmental Review***

Portions of this Master Plan, such as natural resource management strategies, 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. 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 (no significant impact) in Part 617, the rules and regulations implementing SEQR;
- Any change from the preferred alternative for recreational and facility elements which would result in significant environmental impacts;
- Any leases, easements, memoranda of understanding, or other agreements between OPRHP and private entities or other agencies that affect resources in a manner that is not sufficiently addressed in this plan;
- Any project determined through SHPO review to have an Adverse Impact on historic resources at the park;
- Further analysis will be done to assess more specifically impacts of development on sensitive resources of the park, particularly the coastal plain pond natural community of Hallock's Pond. The need for additional environmental review would be evaluated based on more site specific planning.
- Siting of a future satellite lot will be subject to additional review and determination of significance under SEQR.
- Restoration of the natural areas of the park would not require additional environmental review.