

## **NJDEP's Interior Restoration Summary**

In the center of the park there remains approximately 251 acres, the former railroad yard, which is undeveloped. Much of the area has been re-colonized by various plant communities. These communities represent unique associations of both endemic and non-native species that can be considered the by-product of the cultural events that have taken place during the past several centuries. A broad-based, goal-driven approach is being used to develop the General Management Plan (GMP) for the site. The Division's LSP Advisory Planning Committee, formerly called the Interdisciplinary Planning Committee, has been working on this plan since 2000.

The planning process stresses the fundamental relationship between resource significance and visitor experience. The planning process encourages feedback from the local community. Most importantly, the planning process results in documentation of planning efforts that build a consensus among participants, assure logic and consistency in the proposals, and provide a valid rationale in decision-making. The members of the interdisciplinary planning committee, who represent various public and private interest groups, have agreed to participate in the development of the GMP.

### *Premise I: Inherent Ecological Value*

Various plant communities have re-colonized much of the site. Like the surrounding community of people these assemblages are diverse and have origins throughout the world. This diversity is further enhanced by the rapid rate of natural succession (change inherent within any ecosystem). Hence, there is ecological and aesthetic value in some of the existing natural association.

### *Premise II) Soils Condition*

The soils of the area consist of fill brought in by the railroad companies between 1860 and 1919 to stabilize the surface. Much of it is non-consolidated material resulting from construction projects in Manhattan, or refuse from throughout New York City and the surrounding area. It is classified as historic fill and has some limitations. Allowing public access via the creation of a trail system will have to creatively combine soils mitigation boardwalk construction, plantings and some fencing to ensure the safety of pedestrians through the site.

### *Agreement I, Planning Objectives:*

1. Provide public access for interpretive programs allowing visitors to touch the natural world.
2. Maintain as much of the site as possible, especially wetlands and special plant communities, under a conservation mandate while providing public access

3. The landscape of the interior should reflect the history of the park as well as the connection to the harbor/estuary. The history of the area now known as Liberty State
4. Provide public access to the perimeter of the site for multiple uses.
5. Improve topography, enhance wetlands and provide open water, and enhance aesthetic values and sight lines where possible. In those areas that are to be disturbed, new elevations will be established that enhance the existing wetlands, possibly creating open water habitat and taking advantage of the spectacular views of the harbor and New York City skylines.
6. The planning effort will be conscious of other neighboring redevelopment efforts.

#### *Agreement III, Proposed Protection Strategies*

Key to accomplishing the committee's stated objectives will be the integrated use of the protection of critical areas; the conservation of woodland and field areas; and the restoration of wetland habitats and provisions for visitor services according to the following:

1. The existing wetland areas, which are protected under the Freshwater Wetland Act, will be enhanced where possible.
2. There is a unique plant community atypical for this area that has been identified as the moss mat community. Due to its unique association of species, which is characteristic of communities at northern latitudes, this critical area will also be protected.
3. Most of the area will be maintained under a conservation mandate, which allows for the management of invasive species and enhancement with species that would increase biologic diversity.
4. Saltwater wetland restoration may also be possible.

#### *Agreement IV, Methodologies*

1. Preservation- The preservation of the wet-thicket and sedge ponds, which currently occupy approximately 3 acres, is critical. A buffer of 100 feet must also be included, and the area could be expanded to approximately 10 acres. In addition, the half-acre moss mat community is found in association with 2 acres of "common reed", a half-acre of sumac and 1.3 acres of sedge ponds, which act as a buffer. This complex should remain intact and allow the "moss mat community" to expand.
2. Conservation - The pioneer forest comprises a significant section of the interior. Management strategies in these areas will consist of removing invasive species and a limited amount of wildlife

enhancement plantings. In addition, those field areas existing between the wooded areas should be allowed to succeed, creating a more contiguous forest. Field areas include herbs and grasses that inhabit the dry, gravel soils of the old railroad beds. Many grass fields are gradually giving way to early succession woody species. While this transition will be encouraged in those areas between the forested stands, thereby creating a more contiguous forest, some grasses will be maintained. The primary management practice will be to mow the area on an annual/biannual basis or more frequently depending upon the desired use.

3. Restoration - Grasses and species of trees typical of early succession currently dominate the dredge spoil site. It may be possible within these areas to create a cross section of the vegetative communities, which existed prior to the development of the area. The creation of an area representative of the transition from salt marsh to upland forest would provide for an exceptional study of habitat restoration in the urban environment while enriching the visitor experience.

The "common reed" (*Phragmites communis*) dominates the marsh meadow. The "Common Reed" grows as a nearly impenetrable; dense stands are 10-12 feet in height. While some of these stands will be involved in the restoration efforts, which may include the reintroduction of freshwater habitat into the park, several acres should be left for its inherent wildlife values.

The restoration of both freshwater and marine wetlands could re-introduce aquatic habitats to the center of the park and create a network of interconnected wetland/waterways.

4. Interpretive Enhancements - Interpretive trails will be developed in areas already disturbed by former roads to minimize disturbance. However, several connecting trails will have to be developed. These should follow the vegetative communities to allow for viewing wildlife while minimizing disturbance.
5. Interpretive and Recreational Enhancements - In order to provide open space non-commercial recreational enhancements, connection between existing facilities and access for interpretation, several trails and perimeter green spaces will have to be established. While the perimeter must serve as a buffer to the more ecologically sensitive areas, its width can vary greatly to create interesting areas capable of supporting trails, which explore interpretive themes, picnic areas or other forms of passive recreation. The amount of area dedicated to the various types of activities would be determined during the future design phase but should loosely follow the wood lot edge.

The 18-acre soil stockpile area, recently disturbed by the storage of soil used for landscaping purposes throughout the park, will provide for a range of non-commercial passive recreational activities. Its location in the extreme southwest corner of the site, next to the industrial complex and across from the proposed sports complex may lend itself to such use and is critical as a buffer to the more ecologically sensitive areas within the site.

By using fill to increase the elevation of certain areas within the perimeter visual and noise barriers can be created. They can be used to obscure the view of the industrial area or decrease the noise from traffic along Phillips Dr. They can also be used to create interesting lines of site between the Science Center and the Interpretive Center or to direct storm water into the wetland areas.

#### **Agreement V, Feasibility**

The conceptual plan presented above has been developed with the intention of providing the best land use given existing conditions. At this point engineering studies that focus on mitigation of historic fill, hydrology for freshwater wetlands and reintroduction of salt marsh habitat must be undertaken. It has been determined that the area is of such significance to the eventual success of other park amenities, and also to the quality of life for surrounding residents, that a professional international competition for the actual design should be conducted. Such competitions tend to increase the visibility of the project and attract more creative designers, giving the project the attention it deserves.

#### **Conclusion**

Liberty State Park, the cornerstone of the Gold Coast, is already a successful rehabilitation story. However, with the completion of the interior section the park has the potential to be an international showcase for the restoration of a former urban brown field. The tremendous interest in the remaining undeveloped section of the park is symbolic of a broader struggle that often occurs within New Jersey, and throughout much of the nation, to balance the protection of natural resources with the need for continued economic development and recreational opportunities. This General Management Plan strives to complete the park in a manner that honors its history while at the same time provides for the residents of the surrounding community, state, national and international visitors. The plan must be consistent with the Division's stewardship principle that "activities must be within the physical and biological capabilities of the natural/historic resource."