

Aquatic Park & Greenway Project



Pequannock Township
Morris County, New Jersey
FINAL DRAFT

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THE ENVIRONMENTAL COMMISSION OF PEQUANNOCK AND TOWNSHIP OF PEQUANNOCK WOULD LIKE TO THANK THE ASSOCIATION OF NEW JERSEY ENVIRONMENTAL COMMISSIONS AND THEIR SPONSORS FOR MAKING THIS PROJECT POSSIBLE THROUGH THEIR GENERIOUS GRANT AND TECHNICAL SUPPORT.

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JAMES IORIO
MICHAEL LAMAN
DR. TOM SHIVY
RICHARD TRITSCHLER

THE FOLLOWING PERSONS AND ORGANIZATIONS SHOULD BE ACKNOWLEDGED FOR THEIR CONTRIBUTION AND SUPPORT OF THE PROJECT:

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EDWARD ENGELBART, DEPUTY MAYOR
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TOM FARRELLY
PAUL HOLLICK

KERRY MILLER, ANJEC PROJECT COORDINATOR
KEVIN BOYLE, TOWNSHIP MANAGER
EILEEN BANYRA, PP, AICP
ED SНИЕCKUS, PP, CLA
LINDA ZACHARENKO, GRANT ADMINISTOR PLANNING DEPARTMENT
JAMIE BROWN, MORRIS LAND CONSERVANCY

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I. INTRODUCTION

The master plan for the Aquatic Park and Greenway Project provides a blueprint for the enhancement of an underutilized open space resource located in Pequannock Township. The achievement of this plan will provide a significant open space amenity, afford linkages with regional open space and recreational resources, protect and enhance critical environments and habitats, and springboard further conservation and open space efforts.

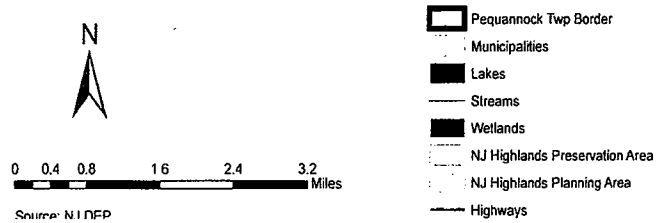
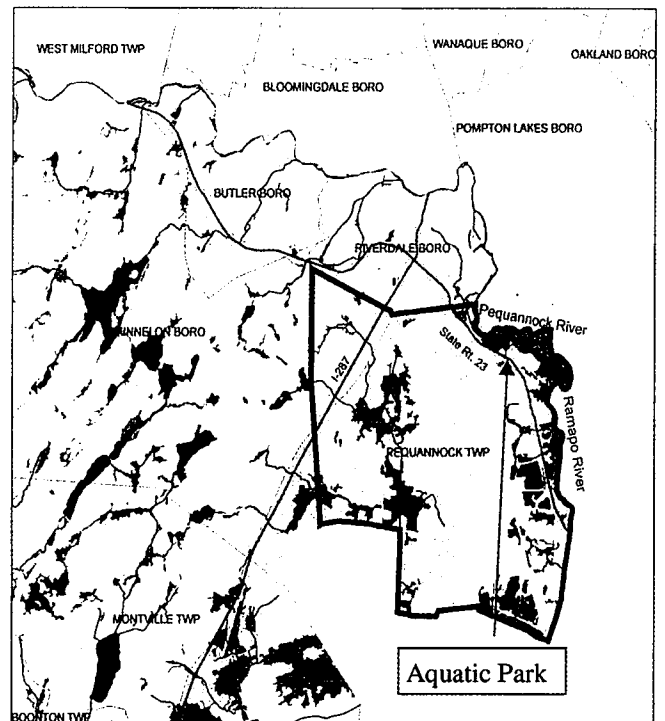
Most importantly, the actualization of this plan will inspire greater environmental awareness among park visitors. Through the transformation of a long-neglected and oft-forgotten municipal parcel into a regional open space amenity, local residents and park users are provided an outstanding opportunity to encourage the diversity and restoration of environmental resources. The park also serves as a tool to educate the public as to the natural resources and recreational opportunities located in their back yard. The intent of this project is to serve as the starting point for future conservation and open space initiatives.

Pequannock Township’s master plan seeks to actively protect existing environmental resources, expand open space and recreational opportunities, and link open space offerings to regional open space networks. As will be demonstrated throughout this plan, the proposed improvements to Aquatic Park and the riverfront will advance each of these goals and provide a valuable regional amenity. The hope is that its success will spur additional open space acquisitions, provide greater resource protection and encourage partnerships among the various groups, adjacent municipalities and counties for the benefit of the region.

II. PROJECT SUMMARY

In an effort to protect the river environment, expand Pequannock Township’s open space offerings and implement the open space and recreation goals of the Master Plan, the Township’s Environmental Commission pursued funding to develop a master plan for the area along the Pequannock River, identified as Aquatic Park. Aquatic Park is a little-known municipal property adjacent to the Pequannock River, consisting of approximately 40 acres of open space. While the assets of the area are well-acknowledged, Aquatic Park suffers from a number of barriers which have impeded the realization of its full potential. Without a formal plan and vision for the area, the “park” has languished for more than 30 years.

In accordance with the grant received from the Association of New Jersey Environmental Commissions (ANJEC), the Environmental Commission, with the support of the Township Administration, Open Space Committee and Department of Parks and Recreation, developed this master plan for Aquatic Park and riverfront to improve access for both educational and multi-purpose recreational use of this scenic area. The master plan is the result of the collaborative efforts involving multiple stakeholders and interested citizens. This plan intends to serve as a catalyst for the protection of the resources and the realization of the area as a regional open space amenity.



Regional Map of Park Location

III. REGIONAL SIGNIFICANCE AND RELATIONSHIP TO THE STATE AND LOCAL PLANS

Pequannock Township serves a critical role in the region. Situated in a plain at the base of the New Jersey Highlands, the township is strategically located at the confluence of the Pompton, Pequannock, and Ramapo Rivers. The area is environmentally significant for the flood plain and water resources it affords, as well as the extensive wetlands and wildlife habitat it provides. The community serves as an important transition area between rural Highlands communities to the west and suburban Passaic/Morris County communities to the east. The plan offers valuable linkages to the river and contains numerous opportunities for the expansion of regional greenways and linear open space features.

As stated previously, the Pequannock Aquatic Park Project is anticipated to serve as a springboard to initiate larger open space projects in the area. Although this project is seemingly small relative to the surrounding open space and its environs, its impact will be substantial. With increased use and inter-municipal access (via a bike path and the North Jersey District Water Supply Commission pipeline), the Aquatic Park plan and open space improvements will help effectuate similar projects in adjacent communities along this natural corridor.

The development of this plan, and the ensuing improvements to Aquatic Park and riverfront, will provide invaluable public awareness and exposure to this magnificent natural area. By advancing the community's awareness, it is hoped that the stakeholders will renew public interest in the protection of existing environmental assets and features, and trigger a greater desire to expand open spaces and/or pursue access easements to help preserve them.

Moreover, it is hoped that the increased awareness and visibility will afford greater protection and policing of adjacent properties. While the area adjacent to the river is zoned for highway commercial development, the remote nature of the area makes zoning enforcement difficult and intrusions are commonplace. Aquatic Park and other properties located along the river are constrained by floodplains, the 100 year floodway and wetlands.

Potential Links to Regional Open Space Resources:

North Jersey District Water Supply Commission Pipeline

Status: No formal access to date.

Linkages: Approx. 2 miles between Borough of Wanaque (Passaic County) and Little Falls.

Significance: Link to Highlands region

Morris County Bikeway

Status: Unknown

Significance: Local and regional connection.

Riverside Park

Location: Wayne Township

Significance: Open space adjacent to river to form linear connection & massing.

Passaic County Park

Location: Wayne Township

Significance: Open space adjacent to river.

and objectives of the State Development and Redevelopment Plan, including the following:

- To conserve the State's natural resources and systems;
- To protect the environment, prevent and clean up pollution; and
- To ensure sound, integrated planning and implementation statewide.

More specifically, this plan directly advances the establishment of greenways, as discussed in the State Plan. (See inset at right.)

Lastly, this plan responds to and advances the recommendations contained in the township's 2003 reexamination report. The reexamination report speaks to the importance of the resources found in this region, and specifically states that the Township "must make it a priority to protect these areas, expand open space opportunities and provide essential linkages to Township and regional trails through improvements to Aquatic Park and along the river."

Greenways in the State Plan:

"Greenways are corridors of protected open space managed for conservation and recreation purposes. They often follow natural land and water features and link nature reserves, parks, cultural features and historic sites with each other and with populated areas.

...serve as a focus for redevelopment efforts in the state's river towns, including restoring existing parks and acquiring additional land along the waterways."



The remnants of the feeder canal of the Morris Canal on the Pompton River at Aquatic Park. (photo courtesy of Dr. Thomas Shivy)

IV. GOALS AND OBJECTIVES

- Connect to existing and proposed open space resources in the region;
- Increase public awareness concerning the environmental assets of the area;
- Inspire environmental stewardship among park visitors, including school children;
- Provide unique recreational opportunities catering to a diverse demographic;
- Ensure the continued conservation of this sensitive area and prevent incompatible intrusions;
- Increase accessibility and visibility;
- Provide educational opportunities relating to habitats and environs;
- Provide opportunities for wildlife viewing;
- Catalyze future open space initiatives in the Township and the region;
- Examine and recommend ordinances that will support protection of the adjacent resources while addressing improved water quality and aesthetics.

V. AQUATIC PARK RECOMMENDATIONS

The master plan for Aquatic Park improves accessibility, promotes general awareness of the area, provides opportunities to explore the area's bountiful habitats, offers educational resources, and links the area to existing and proposed regional open space networks. Through physical improvements to the area and the proposed connections to regional recreational improvements, the value of the proposed plan for the Aquatic Park area extends beyond municipal borders, and reaches the entire region.

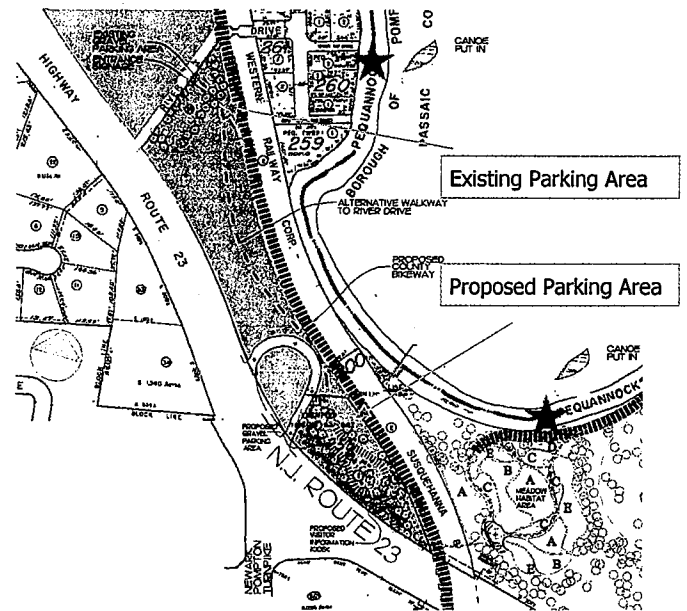
A. Improved Accessibility and Parking

The inherent assets of this area have gone unrealized due to the physical isolation of Aquatic Park from the surrounding community. Inadequate accessibility - borne out of Route 23 expansions, the railroad right-of-way and adjacent landlocked parcels - consistently proved to be the greatest impediment to the achievement of the area's opportunities. This plan outlines a design to improve vehicular, pedestrian and bicycle access to the area.

The township received permission from New Jersey Department of Transportation, (NJDOT) to maintain a gravel parking area on its property adjacent to River Drive (Lot 1 Block 256) and permit pedestrians to traverse this lot to access the adjacent lands owned by the Township. While the location of a parking area in this location greatly improves accessibility to the park, a visitor would have to walk more than a quarter-mile to reach the entrance of the parklands.

Throughout the course of this master planning process, it became evident that a more convenient parking location would greatly enhance the awareness and usability of the area, and therefore achieve an important objective of this effort. As such, an expansion of the lease agreement with NJDOT to permit access from the northbound jug handle of Route 23 to Newark Pompton Turnpike offers great benefit. This area could accommodate a new gravel parking area to be maintained by Pequannock Township.

This parking area will serve as an entrance area to the park and provide increased visibility to the general public. The gravel parking area would accommodate approximately 45 parking spaces and include a visitor



Existing and proposed parking area overview.

information kiosk at the lot's southeastern terminus. Together, this area becomes a focal point and gateway to the park. The location of the proposed drive requires further review and confirmation with NJDOT to determine the appropriate engineering design to insure a safe vehicular entrance and exit.

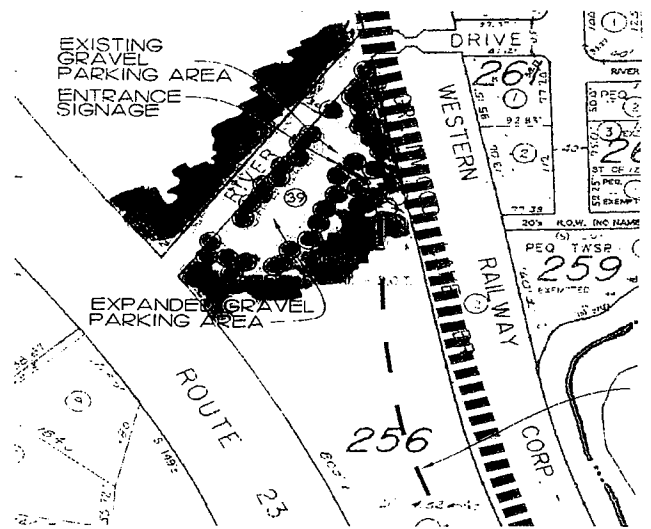
The design and construction materials of the parking areas as well as the remainder of the park area are intended to be low impact and to incorporate environmentally responsible improvements in order to avoid further impacts to the sensitive ecosystem of this area. The parking area surfacing will be largely crushed gravel possibly incorporating recycled materials depending upon availability. All runoff for this area will be intercepted by vegetated swales to treat water quality. Hard surfaces will be confined to accessible routes and decoratively paved areas for interest. The run-off from such surfaces will be dispersed rather than concentrated in order to avoid erosion. Mechanical snow removal of these areas will be limited to the main entrance areas and de icing salts should be held to a minimum.

The cut and fill required to establish the grading for the improvements will be kept to a minimum by following the existing grades as much as possible and using the fill material from construction activities to establish landscape berms where appropriate. All grading will strive to balance the amount of cut and filling in order to avoid any impact to the floodplain environment.

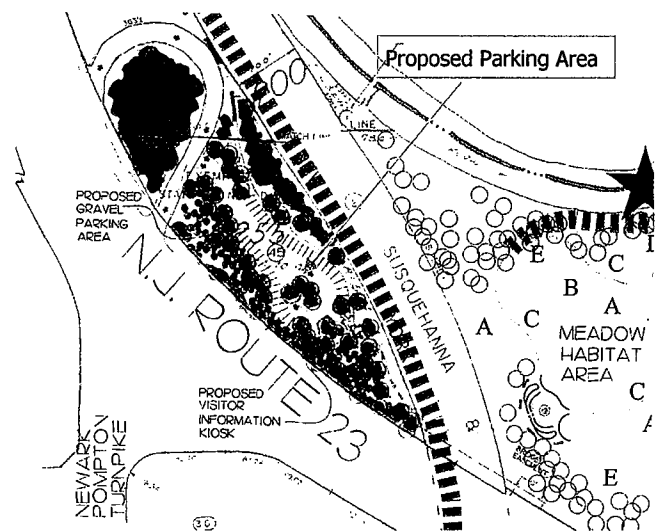
These improvements will also be evaluated for proximity to wetlands and buffer areas. The intent of this design is to avoid any impacts if possible. Any required permits will be obtained if necessary.

B. Park Gateway / Information Kiosk

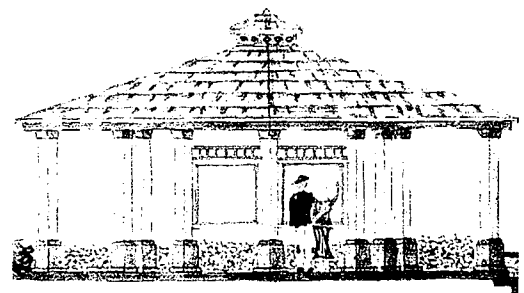
The location of the information kiosk at the southeastern section of the proposed parking area serves as a gateway element. It provides an introduction to the park, its features and its environmental assets through illustrative mapping and informational signage mounted on the kiosk. The signage illustrates the park's three regions -meadow habitat, aquatic habitat and woodland habitat. Additional signage and illustration describes the vegetation, wildlife and ecological assets of each area.



Existing parking area improvement enlargement

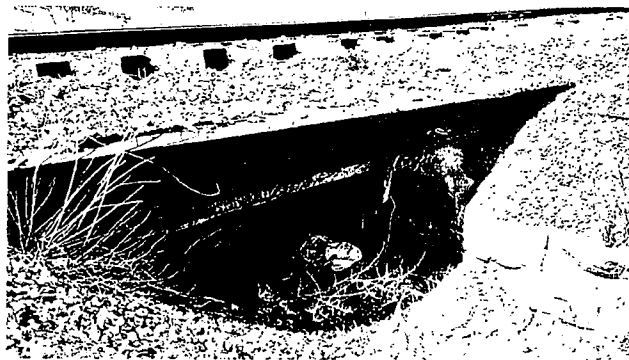


Proposed jug-handle parking area improvement.



Proposed pavilion information kiosk

In order to access the adjacent parklands, visitors must cross the railroad right-of-way located between the proposed parking area and the parklands. Two possibilities are currently being explored for this crossing. One option involves the restoration of an existing underpass previously used for the passage of farm animals. This option permits an unrestricted crossing of the railroad right of way. The second option, an at-grade crossing of the tracks, requires the installation of safety improvements including walkway surfacing and signage.



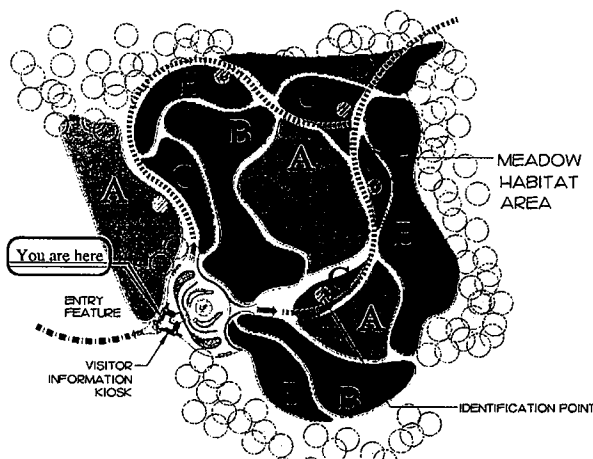
Existing R&R passage to be excavated & improved.

C. Amphitheater

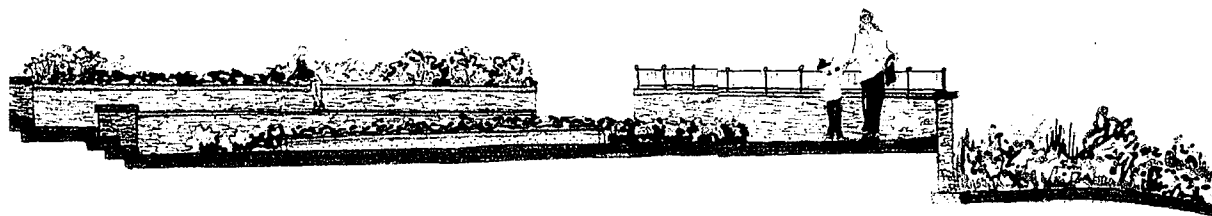
Upon crossing the railroad tracks, a trail leads the visitor to a natural amphitheater and overlook area. This feature allows the visitor to become oriented with the surroundings, and offers a gathering space for meetings and instruction during school field trips. The existing grade change lends itself to the placement of this facility at this location.

To establish an informal natural setting, the proposed amphitheater design consists of stone retaining walls and crushed stone pathways. Raised planting beds will include native herbaceous and woody shrub planting. The plantings include labels for instructional purposes. A decorative wildlife pictorial inlaid within the center paver area will serve as an artistic design element and focal point. This area provides a relaxed atmosphere for environmental instruction and education for park users, including school groups and other organizations.

EXPLORE the meadows



Regional Map of Park Location



Section illustrating the amphitheater for instructional and interpretive displays

D. Meadow Habitat Region

Several wood chip paths proceeding from the amphitheater space lead the visitor through the meadow habitat region. The meadow habitat will include various areas with distinct grass and herbaceous plant seed mixes. The mixes will be formulated for varying heights and compositions. Details on the proposed meadow mixes are attached as Appendix B.

The meadow region will require seasonal mowing in order to maintain the intended design effect, encourage seed release and control invasive exotics and woody plant material. The mixes are formulated so as to establish attractive seasonal color and appropriate bird habitat.

The meadow habitat paths converge onto an existing trail adjacent to the Pequannock River. This trail leads the visitor into the aquatic region of the park.

E. Aquatic Habitat Region/River Trail

The aquatic habitat region features the river environment and allows for aquatic recreation such as boating and fishing. An existing riverfront trail, which connects to the riverwalk in the adjacent Passaic County park, will be enhanced and upgraded.

Three put-in/take-out areas permit recreational access for canoes and kayaks. One such area is proposed within the park itself, while two other locations (one existing/one proposed) are located at points north and south of the park area. The proposed "river trail" is detailed below.

The proposed river trail begins at an existing municipal launch area, located at the terminus of River Drive at the Pequannock River. Because this launch location only accommodates one to two vehicles, proposed signage will direct boaters to leave their cars at an existing gravel parking area on River Drive following their boat launch. Boaters using this launch may then traverse the Pequannock River southward to an intermittent ramp proposed along the banks adjacent to Aquatic Park.

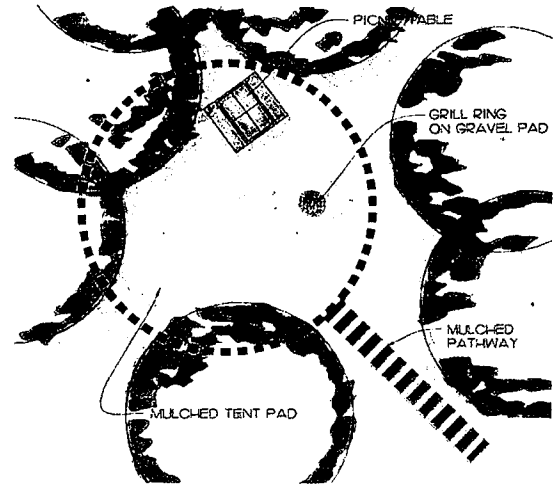
Boaters could then continue southward on the Pequannock River to its confluence with the Ramapo River. At the Morris Canal feeder dam, a proposed portage trail allows the continuation of the route southward. The route would extend to the riverside frontage of the A&P Shopping Center, located on Jackson Avenue. Through an easement to the township, a proposed ramp at this location would serve as a take out area. Gravel area improvements for vehicular parking and boat retrieval complete the river trail amenities.



Trails through the aquatic habitat region connect to a series of trails extending into the area to view the surrounding woodlands and wetlands habitat.

F. Woodland Habitat Region

The woodland region features a forested floodplain ecosystem. A series of trails take the visitor through this region. Proposed tree identification signage provides educational information regarding the species indigenous to this area. In addition, several tent camping sites, picnic benches and fire rings allow camping activity within the park. The addition of the camping features provides a setting where everyone (young scouts to families) has an opportunity to explore the different habitats and enjoy nature. To be permitted through the Parks and Recreation Department, the camping also provides an additional level of security as the presence of campers will serve to deter vandalism and further protect the area.



Conceptual plan for camping sites.

The proposed woodland trails converge onto the trail traversing the North Jersey District Water Supply Company pipeline easement. This trail provides an unparalleled opportunity for a regional connection to the adjacent open space systems within the Borough of Pompton Lakes to the north and Wayne Township. This regional connection will require an engineering feasibility study of a pedestrian bridge to span the Pequannock River.

VI. Regulatory Review Requirements

Some of the proposed modifications will require the review and possible permitting by NJDEP. It is probable that the improvements will require analysis for proximity to wetlands and wetland transition areas as well as floodplain impacts. It is anticipated that such permitting, if required will be obtainable under NJDEP's General Permit 15, (Habitat creation and enhancement) and 17, (trails and boardwalks).

VII. LAND USE RECOMMENDATIONS

In addition to the design and development of the Aquatic Park, the environmental assets of the project area require additional protection in the Township's land use planning and development regulations.

A. Zoning Regulations

As indicated previously, the project area is located in the C-3 Regional Commercial District. The permitted uses within this zone are identified below. While the permitted uses are generally considered clean uses, the remoteness of the area allows zoning violations to occur without immediate detection. It is expected that the development of the park will increase the visibility of the entire area, additional zoning ordinances to further protect the area's resources should be explored.

Some of the *permitted* uses in the C-3 district include:

- Retail sales,
- Business/professional/government offices
- Churches
- Restaurants (not drive-thru),
- Bars,
- Hotels/motels,
- Clubs/lodges,
- Rail stations,
- Shopping centers/malls,
- Movie theaters,
- Tattoo/body piercing parlors

Conditional uses in the C-3 district include, but are not limited to:

- Gas stations,
- Auto repair,
- Auto sales,
- Commercial recreation,
- Nursery/garden centers

To follow is a recommended Landscaping Design Standards draft ordinance which is to be discussed by the Planning Board later this month. This ordinance is proposed to meet the goals of the plan on a number of level.

However, due to the sensitivity of the area, additional zoning regulations for the following areas should also be considered:

- Adoption of the proposed NJDEP Stormwater Regulations adopted in February of 2004 for commercial sites.
- Additional Flood Plain regulations.
- Consideration of porous pavement solutions where possible.

B. Landscape Design Standards

Additionally, the township may wish to explore the adoption of a landscape ordinance governing elements such as frontage buffers, transition buffers, landscape design, landscape plans, site protection, and street trees. These standards are suggested to establish improvements to the environment, buffer incompatible land uses and improve the visual environment.

A model ordinance is attached as Appendix A.

