

# Weymouth River Management Plan

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## The Weymouth Management Plan for the Great Egg Harbor National Scenic and Recreational River.

### Background

One hundred twenty nine miles of the Great Egg Harbor River and its tributaries were designated into the National Wild and Scenic Rivers System in 1992. The South River as a tributary falls under this designation. Congress envisioned the National Wild and Scenic Rivers System as a cooperative effort, which relies on the actions of private individuals and groups, as well as all levels of government. The Act provides communities, where rivers flow across non-federal lands, with a method for protecting river corridors that is sensitive to the specific local needs and concerns. The National Wild and Scenic Rivers Act provides the framework for Weymouth Township to develop a sensible conservation strategy for both the Great Egg Harbor River, South River, and their watersheds.

### Description of Weymouth Township

Weymouth Township resides in the lower southwestern section of Atlantic County, New Jersey. The Great Egg Harbor River boundaries the township to the east with the Tuckahoe River running the boundary to the west. Hamilton Township separated from Weymouth Township in 1813 followed by Corbin City separating in 1923, commencing with the separation of the City of Estell Manor in 1925. Weymouth Township remains a relatively small township of 12.12 square miles. The population of Weymouth Township as of 1990 as 1,957, with an average of 160 people per square mile, and about 3.17 persons per household. Weymouth Township lies within the lower portion of the Great Egg Harbor Watershed, within the jurisdiction of the Pinelands Commission and the NJ Department of Environmental Protection. Weymouth Township has access to 3.3 miles of the Great Egg Harbor and 5.7 miles of South River frontage within the designated Wild & Scenic River corridor of the Great Egg Harbor River.

### Description of the Great Egg Harbor River

Weymouth Township has 3.3 miles of the Great Egg Harbor River that falls within its boundaries. The Great Egg Harbor River Watershed is currently protected by State protection mechanisms: The Pinelands Commission and CAFRA. Relying on these protection mechanisms does not ensure local control of the resource. Either a change in State Law or an imposition of guidelines by the State would result in changes to the protection of the South River not envisioned by the community. To protect the South River, two important recommendations must be made. First, locally codify State regulation to maintain local control of the resources. Second, increase public awareness of the significant resources of the South River.

### Description of the South River

The South River has remained relatively undeveloped, retaining a scenic natural beauty. The South River provides an ideal habitat for local flora and fauna with a good portion of the river remaining virtually undisturbed. Most of the South River is considered freshwater or "Cedar Water". The tea-colored "cedar water" is produced by dissolved iron and tannin, a product of fallen leaves and cedar roots indigenous to this area. The southern portion including the mouth of the South River is considered brackish, a mix of fresh and saltwater. This large area of marsh and wetland serves as an important resting, feeding and breeding area for waterfowl throughout the year. This watershed has been occupied since pre-historic times, lived upon traditionally by the Lenape Indians before occupation by Europeans in the early 1700s. The pristine beauty and raw wilderness that encompass the South River is an undisturbed natural resource Weymouth Township should preserve.

## Methodology

### Community Opinion

The River Management Plan recognizes that the people who live, work and play within the Great Egg Harbor River watershed have a stake and a role in its protection. For any management plan to be successful, it need.' the understanding and support from its surrounding community. To establish long-term detailed plans for the river community, public opinion must be surveyed. Weymouth Township Environmental Commission will base initial recommendations on an assumed community opinion that values the rive as an important resource within the Township. The primary goal of these initial recommendations is to maintain the status quo of the river until detailed planning can be done.

### Compare Opinion with Current Protection Measures

Current protection measures will be reviewed to evaluate whether additional measures must be taken. Local protection measures are key to maintaining township control over the resource.

### Guidelines and Recommendations

The recommendations that will be given should better meet the needs of the community. They will document both actions and attitudes that must be changed to ensure long term protection of the river.

## Current Protection Measures

### New Jersey Pinelands Commission

The U.S. Congress established the Pinelands National Reserve in 1978. Under the Pinelands Protection Act, the Pinelands Commission was established by the State of New Jersey and was granted strong land use regulatory powers. See Zoning Map (Appendix 1) and Recommended Management Boundaries Map (Appendix 2).

The Pinelands Comprehensive Management Plan was enacted in 1981. Under the provisions of the Comprehensive Management Plan, all municipalities adopted conforming Master Plans and Zoning Ordinances, which were certified by the Pinelands Commission. Included in the items

reviewed for conformance are permitted land uses and intensity of development: water quality standards: wetlands and buffering requirements: vegetation requirements, and other standards.

## New Jersey Department of Environmental Protection

The New Jersey Department of Environmental Protection (DEP) is responsible for the Coastal Area Facilities Review Act (CAFRA) and the Freshwater Protection Act. New Jersey enacted CAFRA in 1978 to implement the federal Coastal Zone Management. These rules pertain to CAFRA projects, waterfront development projects and coastal wetland's projects. Freshwater wetland projects are governed under the Freshwater Wetlands Protection Act Rules. See Existing Land-use / Land-Cover Map (Appendix 3) and Recommended Management Boundaries Map (Appendix 2).

## Weymouth Township

The primary lands within the river management area lie between the South River and Great Egg Harbor River. This area falls within the Pine lands Commission's jurisdiction or within the NJ Department of Environmental Protection CAFRA jurisdiction. It is largely wetlands and flood prone. See Recommended Management Boundaries Map (Appendix 2) and Freshwater Wetlands - Flood Prone Areas Map (Appendix 4).

Weymouth Township planning policies are consistent with the Wild & Scenic River Guidelines. There is a small-developed area already existing in management area along Route 50 which the Township has zoned for small lots, consistent with what exists there, The Township has environmental regulations in place in its ordinance. See Existing Land - Use / Land - Cover Map (Appendix 3).

The zoning in the Great Egg Harbor River management area includes the following districts: See Zoning Map (Appendix 1 ).

- R-R Rural Residential - 5 acre lots
- R-1 Residential -1 acre lots
- R-2 Residential -10,000 square foot lots
- PFA Pinelands Forest Area - 25 acre lots
- PVC Pinelands Village Commercial

Some of the lot sizes are smaller than what is recommended by the Wild & Scenic River management Guidelines; however, these districts are already developed.

## Resources of the Great Egg Harbor and South Rivers

### Endangered Flora

The entire length of the South River contains significant Ecosystems. The upper segment of the South River contains Pitch Pine Lowland Forest and Hardwood Swamps. The middle section

contains vernal ponds and freshwater Tidal Marsh Complex. The lower section of the South River is a Brackish Tidal Marsh Complex. All areas along the South River have sites with rare plants or plant communities recognized by federal and state agencies and the Pinelands Commission. Sightings of specimens are documented and archived by the New Jersey Natural Heritage Program. See NJ Natural Heritage Database below. The New Jersey Natural Heritage Database is rather limited for Weymouth Township. The limited number of reportings could be due to the South Rivers remoteness and limited accessibility. The Atlantic County Division of Parks Senior Park Naturalist John C. Hansen and Margaret Attack provided an additional list of rare species and natural communities that are known to exist or may be found along the South River. See Atlantic County Division of Parks (Naturalists) Table below. The naturalist stressed limited investigation has been done along the middle and upper reach of the South River because of its limited accessibility, but they are confident it is a repository for a number of threatened or endangered species.

## **Endangered Fauna**

As a National Scenic and Recreational River Tributary, the South River provides a means of preserving wildlife habitat, protecting water quality and supply, and managing land use. In addition, it affords the public with recreational opportunities to observe wildlife resources in a pristine setting. The South River provides a nesting, resting, feeding, or year round residence for a number of Endangered, Threatened, or Declining species. Sightings of endangered and rare species are documented and archived by the New Jersey Natural Heritage Program. For reportings to the New Jersey Natural Heritage Database (see Table below). Also, please refer to the Rare Species and Natural Communities Present (Table Legend) in the Endangered Flora section as a key to the tables below. The Atlantic County Division of Parks Senior Park Naturalist John C. Hansen and Margaret Attack were able to provide an additional list of endangered fauna.

## **Fisheries**

The estuaries and wetlands associated with the South River serve as a critical nursery habitat and spawning grounds for anadromous, resident estuarine and transient marine fish. Some of the recreational and commercial species of fish, which can be found in the South River, are Alewife, Herring, Striped Bass, and Atlantic Shad. Migratory birds and anadromous fish are a Federal Trust resource responsibility.

## **Recreational Uses**

The upper reach of the South River is not conducive for recreational uses due to the lack of accessibility and the lush vegetation that surrounds the upper river. Some recreational fishing is done at the 11th Avenue bridge area. The river south of the Route 50 bridge is suitable for canoes and kayaks. The mouth of the South River, which joins with the Great Egg Harbor River, provides watercraft access to the lower tidal areas where there is huntable wildlife habitat, and fishable waters.

## **Limited Non Point Source Pollution**

There is no significant non-point source pollution on the South River. Two minimal point sources of pollution exist from road runoff on the 11th Avenue bridge and the Route 50 bridge. It

is recommended that the township engineer review this problem and make recommendations to the Weymouth Township Environmental Commission regarding these issues.

## Priority Resources

In addition to the nationally significant river resources, Wetlands, Floe Hazard Areas, and Areas of Archeological Significance and Sensitivity river - related resources of state and local significance were also identified in the protection strategies for the South River.

### Wetlands

Wetlands are considered a priority resource. See Freshwater Wetlands, Flood Prone Areas Map (Appendix 4). Soils associated with wetlands adjacent to the South River and its tributaries are classified as having severe limitations for development purposes and should be protected.

### Flood Hazard Areas

Flood Insurance Rate Maps for this community in the watershed were used to map the 100 - year flood hazard areas. See the Freshwater Wetlands - Flood Prone Areas (Appendix 4). These areas surrounding the South River are important since the state Flood Hazard Area Control Act currently authorizes municipalities to regulate stream encroachment activities in the flood hazard area and to develop conservation oriented land use ordinances. Areas of Archeological Significance and Sensitivity There are corridors along intermittent, permanent, and navigable streams where known Paleo-indian sites have been documented and the probability of finding new sites is very high. Anthony Ranere and Patricia Hansell of Temple University conducted an archaeological survey in the Lower Great Egg Harbor River watershed during 1984. Fourteen prehistoric sites were recorded and evaluated five of which were along the South River, three within Weymouth Township boundaries. The age of the sites ranged from 4000 B.C. to A.D. 1600. Ranere and Hansell also developed a predictive model that should prove useful in predicting the location and nature of prehistoric sites in the coastal / estuarine complex of New Jersey's Outer Coastal Plain.

The South River has a diverse rich history deserved of further research. Of particular interest, the role of the South River during the Revolutionary War era, and the Bethlehem Loading Company presence during World War One.

## Guidelines and Recommendations

### Summary of Recommendations

Two basic recommendations are being made to both preserve and benefit from the South River and Great Egg Harbor River. These recommendations are Local Regulation and Public Awareness.

### Issues To Be Addressed In Local Regulation

In order for the Great Egg Harbor River and South River to be protected locally, it must be viewed as the most important resource for each community along the river. It is the conclusion of

the Weymouth Township Environmental Commission that the portion of the South River within the boundary of our township be afforded the greatest protection that our local government can provide given that the South River and its tributaries, diverse flora, and fauna is what makes Weymouth Township the uniquely beautiful, primitive and wonderful place to live and raise families. While regional agencies like, the Pinelands Commission and CAFRA provide protection and guidance for the river their statutes are subject to change and should be viewed as minimum standards of protection. Local statutes on the other hand will be constant and provide local enforcement of local interest in addition to regional enforcement.

Therefore, to accomplish the goal of elevating that portion of the South River within the boundary of our township to being the most important resource in Weymouth it is the conclusion of the Weymouth Township Environmental Commission that the Weymouth Township Governing Body and its appropriate boards and commissions adopt this River Management Plan which is taken in part from the "Final Guidelines for Local River Management Plans" prepared by the Great Egg Harbor River Management Planning Committee with assistance from the National Park Service in November 1996 by doing the following:

A. Incorporate the Goals for River Management developed through the Wild and Scenic River Study as set forth below. Incorporation of these goals into the municipal master plan will provide the necessary focus on the river as an important community resource rather than the river as just a physical boundary. The Weymouth Master Plan was adopted in 1986. It is virtually silent on the Egg Harbor River. (See Appendix 5 Weymouth Master Plan).

1. Public Awareness. Secure public education of the valuable natural, cultural, and recreational resources of the Great Egg Harbor River Watershed through the watershed association. This association has conducted opinion surveys in other towns along the Great Egg Harbor River.

2. River Management. Streamline existing regulations and coordinate their enforcement to balance the protection of the river with the development and the rights of property owners.

3. Land Use. Maintain existing land uses and develop criteria for future land uses that are compatible with protection and enhancement of the river.

4. Recreation. Enhance the free-flowing character and conditions for appropriate recreational uses of the river.

5. Resource Protection. Enhance the natural, cultural, and scenic resources of the watershed, and recognize their relationship to a larger ecosystem for today's and future generations.

B. Adopt the important river related resources that exist along the Great Egg Harbor River and South River in Weymouth, as previously set forth in the, "Resources of the Great Egg Harbor and South River" section of this Management Plan, as critical resources of the township. The Weymouth Township Master Plan does not address the endangered flora and fauna or any areas of archeological significance.

C. Adopt a "River Conservation Zone" (RCZ) in the Weymouth Township Master Plan similar to the official "federal" boundary, which protects "A acre from the high water line from the banks of the Great Egg Harbor River and the South River. (See Appendix 2). The "River Conservation

Zone" would operate as an overlay district to the already existing zoning districts in Weymouth Township.

D. Establish a land use program for the River Conservation District that reflects the community's values and protects river resources.

1. Codify Compatible/Incompatible Land Uses in the RCZ. While the following considerations should be taken into account in evaluating compatibility within the River Conservation District it is critical for Weymouth Township to adopt currently regulated land uses by the state (See Appendix 6).

a. Encourage frontage uses that respect and enhance the river.

b. Discourage frontage uses that will harm the river. Codify frontage uses which are prohibited by Pinelands and the New Jersey DEP under existing statutes. (With the addition of row crops and salt hay farming)

c. Attempt to mitigate all unavoidable negative impacts through best management practices, storm water management techniques, setbacks, vegetative buffers, etc.

2. Adopt a vegetational buffer composed of indigenous species parallel to the mean high water line for a width of not less than 50 feet. This is the line formed by the intersection of the tidal plane of mean high water with the shore.

3. Adopt minimum building and septic system setbacks from the river of 300 feet measured from the mean high water line. When existing aging or inadequate on-lot septic systems are replaced, require residents to conform to current statutes and regulations.

4. Adopt a minimum river frontage of 300 foot, for all compatible and conditional uses, with the exception of currently nonconforming lots.

5. Adopt a minimum lot size of 5 acres per unit, except for nonconforming existing lots, within the River Conservation Zone.

6. Adopt a restriction on the clearing of vegetation. Specifically, between the required 50' buffer and the 300' setback for construction, no more than 20% of the area may be cleared, with reduction to 10% for slopes over 15% in grade. Replanting of species should not constitute adequate mitigation for exceeding this requirement.

7. Promote cluster development which increases net density in residential zones while at the same time preserves more undisturbed open space while optimally minimizing the impact on river resources. • Limit the number of lots for residential use of 3 or more whether or not constituting a major subdivision or construction of 3 or more dwelling units within a five-year period from or on a property or set of contiguous properties in common ownership.

8. Limit principal structures to 35 feet, in height, or less. Exceptions include structures necessary for farming such as barns, water and grain towers, and windmills, etc. Other uses should be on a case by case basis.

9. Weymouth Township can minimize potential wetland disturbance from upstream and adjacent upland sources by reviewing upstream uses, housing densities, etc. and looking to reduce uses that negatively impact the wetlands surrounding the River Conservation Zone.

#### 10. Pollution/Erosion Control

A. Storm water Pollution Control non-point pollution by revising the Weymouth Township Master Plan to ensure that our zoning ordinances and subdivision and site review procedures guide development in ways which are compatible with the natural features of the area in order to protect water quality. Important considerations in this approach include natural vegetation, filter strips, building densities, river lot frontage, and the amount of clearing of natural vegetation on a building lot.

- Adopt the attached model-zoning ordinance (Appendix 7) that incorporates these tools.
- No more than 10% of a small lot (less than 5 acres) should be covered with surfaces impervious to water, including buildings and pavement. For larger lots, impervious surface coverage should be less than 10%. This should not apply to pre-existing, non-conforming small lots.
- Clearing of vegetation for building purposes should be limited to 20% of lot area, with a reduction to 1- percent for slopes over 15 percent in grade.
- Continuing education programs and workshops can be conducted at local colleges. Programs on the NJDEP Best Management Practices Manual, water conservation, and freshwater wetlands should be offered to residents, developers, municipal engineers, public works officials, etc. County agricultural agents can provide information to farmers and residents concerning BMPs, fertilizers, and pesticides.

#### B. Agricultural Non-point Source Pollution

- Adopt Best Management Practices (BMPs) as set forth by the Environmental Protection Agency (EPA),.

#### C. Erosion & Sedimentation Control

Erosion worsens when trees, shrubs and other plants that help hold the bank in place are removed. Structures built too near the river run the risk of being undermined or flooded. It is recommended that erosion and sedimentation controls as set forth in Appendix 8 be adopted.

11. Currently evaluating the Cohansey Sands Aquifer as a potential source of water supply and their impact on our watershed and our freshwater Design a River Conservation District large enough to protect upland habitats from over-development. Upland habitats within river corridors receive very little protection from over-development. While uplands have been primary areas for development in New Jersey, the environmental and aesthetic value of these areas should not be overlooked when they are located adjacent to rivers.

12. Adopt dock & bulkhead regulations that address the negative visual impacts that an accumulation of docks may cause along the river especially in the area designated as scenic. The Weymouth Township Land Use Code is silent on docks. Currently the Pinelands has no rules on



docks and the Army Corps of Engineers only reviews docks for their impact on river navigability. Concentrated development is better than the continued proliferation of individual docks along the river.

13. All signs in the River Conservation Zone should be in compliance with NJAC 7:50-6.106 through 109 (Pinelands Mandatory and Suggested Provisions for Signs).

14. Scenic areas are the most undeveloped portions of the river corridor. Intensive-use recreation facilities should be specifically prohibited, from these areas in the Weymouth Zoning Ordinance.

- Assess the current need for river access.

- Campground and recreational vehicle parks should not exceed 8 sites per acre for recreational vehicle camping, or 10 sites per acre for tent camping. A minimum of 10 acres of land should be required to establish any recreational vehicle campground, with a 5-acre minimum for tent campgrounds.

15. No expansion of existing development should be permitted between the river and 50' upland from the mean high water mark (i.e., within the recommended buffer).

16. Create a program, which would encourage transfer of development rights within the River Conservation District that would enable river frontage to become permanently deed restricted from development while maintaining value for the owner. A Transfer of Development Rights program allows communities to preserve vulnerable or valuable natural resources. When applied to the Egg Harbor River frontage, this technique would require lands to be preserved or eventually restored to a clean, stable and natural condition. To protect property values, landowners are permitted to transfer the right to develop, based on the underlying zoning district, to areas of the community where greater densities of development are permitted.

17. Mitigation Banking designates areas within a community for wetland restoration. Developers are allowed to disturb existing wetlands in other areas as long as they purchase credits from the mitigation bank for this purpose. For every acre of natural wetlands disturbed, the developer must purchase so many mitigation credits. The capital raised through the sale of mitigation credits is then used to create artificial wetlands in the location identified for restoration.

18. Public acquisition of river frontage is the most direct way to protect the riverfront. Community ownership also ensures access by the public and that the riverfront will be properly maintained and preserved. While expensive, there are several acquisition methods that have been successful. These methods include fee simple acquisition, tax deductible donations of lands, life estate transfers, lease with buyout options, purchase and leaseback (with restrictions,) and installment purchase.

19. Conservation Easements allow the landowner to protect the natural assets of the land in perpetuity while retaining ownership. Acquiring easements for protection of, and/or gaining access to, river frontage is an effective strategy given limited revenue.

## Public Awareness Recommendations

Public awareness and education are an essential element to make the River Management Plan a success. Public awareness of the Natural Resource treasures residing in and around the South River are imperative to garner support in making future protection of the South River a priority.

- Educational programs through the schools. The Atlantic County Division of Parks Resident Naturalists runs a number of environmental education programs geared to different age groups. The Atlantic County Naturalists are interested in supporting the South River conservation effort.
- Establishment of a Speakers Bureau. Designate a list of speakers who are knowledgeable about the South River and its management plan. Make the speakers available to clubs and civic organizations.
- Media Releases. An article can be prepared for release to local and regional newspapers. Invite local TV news channel 40, 29, 23, and 12 for a public interest news story. A designated speaker could be provided to local talk radio programs.
- Invite archaeological exploration of the South River watershed area. Contact regional Universities of archaeological opportunities.
- Construct and circulate a newsletter informing the public of the efforts being made to protect the South River and the unique and interesting resources found along the river.

## Impact on Community

The basic purpose of designating the Great Egg Harbor River Watershed as Scenic and Recreational was to protect the wide array of natural, cultural, scenic, and recreational resources for the future. This has been a response to a local desire to conserve the values that are important to area residents. Wetlands in particular possess natural functions, which maintain human and estuarine health. Food storage and conveyance, barriers to waves and erosion, sediment control, pollution control, water supply and quality are some of the benefits. In addition, recreational activities such as fishing, waterfowl hunting, boating, and bird and wildlife observation depend on healthy wetland and open water habitats. The South River habitats provide open space, aesthetic value, education and research opportunities, and even historical and archaeological value to the people living in the South River watershed.

Many of the regulations discussed are already in effect in Weymouth Township through the Pinelands and CAFRA so the immediate impact of the River Management Plan will be minimal. The River Conservation Zone (RCZ) buffers will be more restrictive than Pinelands requires. However, the long-term effect will be important. The goals and code language adopted in the Weymouth Master Plan will serve as a guide to future Zoning & Planning Boards when future variances are sought.

## Next Steps

- The Governing Body of Weymouth Township should adopt the goals of this Management Plan and create a River Conservation Zone to be sent to all appropriate local boards for recommended adoption.

- The Governing Body should encourage an association of interested residents empowered to educate the public on the vital importance of preserving the river system.
- The Governing Body can ensure the adoption of the Management Plan by the appropriate local boards by setting deadlines for the appropriate local boards so that the Management Plan does not get bogged down or lost in the hearing process.

This document was prepared by Dynamic Security Concepts, Inc. Mays Landing New Jersey and the Weymouth Township Environmental Commission..