

SECTION III
WATERFRONT POLICIES

DEVELOPMENT POLICIES

POLICY 1 RESTORE, REVITALIZE, AND REDEVELOP DETERIORATED AND UNDERUTILIZED WATERFRONT AREAS FOR COMMERCIAL, INDUSTRIAL, CULTURAL, RECREATIONAL, AND OTHER COMPATIBLE USES.

EXPLANATION OF POLICY

The central business district constitutes the underutilized area in Tivoli. A revitalization of the business district has begun, although storefronts that were converted to apartments in the past remain in that use. New uses are primarily commercial. The Village has begun working on the rehabilitation of the old fire house into a Village Hall and public library. All rehabilitation of structures should protect the 19th century architectural character of the Village.

To generate enough consumer traffic to support the new businesses in Tivoli, visitors to Clermont State Park and Montgomery Place should be encouraged to include Tivoli in their tour. The Village is already on the Dutchess County Historic Trail.

In contrast to the downtown business district, very different circumstances apply to the Village's waterfront. The riverfront landing once hosted steamboats and the Saugerties-Tivoli ferry. However, the railroad tracks (now used for high speed trains) have created a major safety issue in crossing the tracks to reach the waterfront. These factors, together with the other environmental considerations (e.g. habitat protection, agricultural soils, lack of infrastructure, etc.) are a major limitation to any future development in this area.

Plans for future development of the waterfront must therefore be limited to an appropriate scale. The bulkhead and landing are now deteriorated but could be repaired. The riverfront could accommodate a small boat launch, as noted in DEC's public access study. The site has been recommended for such a facility in the recent study "Between the Railroad and the River" (Hudson River Access Forum, September 1989).

Any development on the riverfront should not block views to the water from Broadway and should be of a scale and architectural style consistent with the existing character of the community. Consideration should also be given for views of Tivoli from the other side of the river.

There is at present no heavy industrial land use in Tivoli, nor is any section of the Village presently or proposed to be zoned for such use. The Village only allows light industrial uses by special permit in certain zones. Light industry can be accommodated in the vicinity of the central business district.

To be allowed to locate in the Village, such uses must meet at least the following minimum criteria under current zoning:

- 1) Prior to the issuance of a building permit, the applicant must provide a statement from the New York State Department of Environmental Conservation stating that the applicant's proposal meets all the established air quality standards.
- 2) Noise. It shall constitute a nuisance for any person, firm or corporation to permit the emission of measurable noises, as measured at the individual property lines, to exceed 70 decibels during the period between 6 a.m. and 10 p.m., or 60 decibels during the period between 10 p.m. and 6 a.m.
- 3) Glare. It shall constitute a nuisance for any person, firm or corporation to permit the edge of the beam of any artificial light source to cross the boundary line of the lot on which this light source is situated. For this purpose, the edge of the beam is defined as the surface at which the intensity of light does not exceed 10 percent of the luminescence of the center of the beam.
- 4) Odor. It shall constitute a nuisance for any person, firm or corporation to permit the emission of any odor that, as measured at the individual property line, offensively affects the sense of smell.

Tivoli is not an urban area. In adopting zoning and in evaluating development proposals, in areas identified by the Village as appropriate for development, the following guidelines will apply:

- 1) The action should enhance existing and anticipated uses;
- 2) The action should serve as a catalyst to private investment in the area;
- 3) The action should improve the deteriorated condition of a site and, at a minimum, must not cause further deterioration;
- 4) The action must lead to development which is compatible with the character of the area, with consideration given to scale, architectural style, density, and intensity of use;
- 5) The action should have the potential to improve the existing economic base of the community, and, at a minimum, must not jeopardize this base;
- 6) The action should improve the adjacent, upland, and across the river views of the water, and, at a minimum, must not affect these views in an insensitive manner;
- 7) The action, if appropriate, should have the potential to improve public access to the riverfront and other natural environmental areas.

In Tivoli, revitalization efforts will focus on the Central Business District area. All agencies must ensure that their actions further the revitalization of urban waterfront areas. The transfer and purchase of property; the construction of a new office building, highway or park; the provision of tax incentives to businesses; establishment of enterprise zones, are all examples of governmental means for spurring economic growth. When any such action, or similar action is proposed, it must be analyzed to determine if the action would contribute to or adversely affect a waterfront revitalization effort.

See Policies 21, 23, 24, 25.

POLICY 2 FACILITATE THE SITING OF WATER DEPENDENT USES AND FACILITIES ON OR ADJACENT TO COASTAL WATERS.

POLICY 2A ADJACENT TO THE VILLAGE COASTAL WATERS, WATER ENHANCED USES SHOULD BE LIMITED TO EXISTING LOW DENSITY RESIDENTIAL AND AGRICULTURAL AREAS ON THE BLUFF TO THE NORTH AND SOUTH OF THE RIVER LANDING.

EXPLANATION OF POLICY

As noted throughout the LWRP, both the Landing Area and the Bluff Areas have severe development constraints. Because of this, provision for appropriate water-dependent and water-enhanced uses may be severely limited.

The following uses and facilities are considered potentially appropriate as water-dependent activities along the Tivoli waterfront:

- 1) Recreational activities which depend on access to coastal waters such as fishing, boating, viewing wildlife of the Hudson River and the Estuarine Sanctuary, and fishing on Stony Creek;
- 2) Flood and erosion protection structures (for example: breakwaters, bulkheads);
- 3) Support facilities which are necessary for the successful functioning of permitted water dependent uses (for example: parking lots, snack bars, first aid stations). Though these uses must be near the given water-dependent use, they should, as much as possible, be sited inland from the water-dependent use rather than on the shore.
- 4) Scientific/educational activities, which, by their nature, require access to coastal waters.

Other water-dependent uses, as listed in the State's Coastal Policies are not appropriate for Tivoli.

Similarly, appropriate water-enhanced uses are limited due to the unique resources and development constraints in Tivoli. Water-enhanced uses should be limited to activities such as active and passive recreation, agriculture, athletic fields, game preserves, parks, playgrounds, plant nurseries, and wildlife preserves. The Village's LC Conservation Zoning District so limits permissible activities.

Based on the above, the existing low-density estate character of the bluffs on the riverfront should be preserved.

Facilities such as industrial, high density residential, and large scale public utilities are not suitable for Tivoli's waterfront. Adequate upland is available for such uses.

POLICY 3 THE STATE COASTAL POLICY REGARDING THE DEVELOPMENT OF MAJOR PORTS IS NOT APPLICABLE TO TIVOLI.

POLICY 4 THE STATE COASTAL POLICY REGARDING THE STRENGTHENING OF SMALL HARBORS IS NOT APPLICABLE TO TIVOLI.

POLICY 5 ENCOURAGE THE LOCATION OF DEVELOPMENT IN AREAS WHERE PUBLIC SERVICES AND FACILITIES ESSENTIAL TO SUCH DEVELOPMENT ARE ADEQUATE, EXCEPT WHEN SUCH DEVELOPMENT HAS SPECIAL FUNCTIONAL REQUIREMENTS OR OTHER CHARACTERISTICS WHICH NECESSITATE ITS LOCATION IN OTHER COASTAL AREAS.

EXPLANATION OF POLICY

The Village of Tivoli is served by a tertiary treatment sewer system which can be expanded to double its present capacity of 50,000 gallons per day.

The Village water system is adequate for existing demand.

The immediate Hudson River shoreline is not, however, served by either public water or public sewer facilities.

POLICY 5A COMMERCIAL, LIGHT INDUSTRIAL AND HIGH DENSITY RESIDENTIAL DEVELOPMENT WILL BE LOCATED IN AND ADJACENT TO THE CENTRAL BUSINESS DISTRICT IN THE UPLAND VILLAGE AREA WHERE PUBLIC SERVICES AND FACILITIES ESSENTIAL TO SUCH DEVELOPMENT ARE AVAILABLE.

EXPLANATION OF POLICY

Commercial development will be located in the central business district and along Route 9G. Light industrial development will be limited to the same areas and subject to additional and more stringent controls.

High density development will be limited to lot sizes of 15,000 square feet (R15) or cluster development based on the R15 residential zone and is presently allowed adjacent to the central business district. All future development will only be allowed subject to the availability of water and provision of adequate sewage disposal.

POLICY 6 EXPEDITE PERMIT PROCEDURES IN ORDER TO FACILITATE THE SITING OF DEVELOPMENT ACTIVITIES AT SUITABLE LOCATIONS.

EXPLANATION OF POLICY

For specific types of development activities and in areas suitable for such development, State and local agencies will make every effort to coordinate and synchronize existing permit procedures and regulatory programs, as long as the integrity of the regulations' objectives is not jeopardized. These procedures and programs will be coordinated within each agency. Also, efforts will be made to ensure that each agency's procedures and programs are synchronized with other agencies' procedures at each level of government. Finally, regulatory programs and procedures will be coordinated and synchronized between levels of government; and if necessary, legislative and/or programmatic changes will be recommended.

When proposing new regulations, an agency will determine the feasibility of incorporating the regulations within existing procedures, if this reduces the burden on a particular type of development and will not jeopardize the integrity of the regulations' objectives.

FISH AND WILDLIFE POLICIES

POLICY 7 SIGNIFICANT COASTAL FISH AND WILDLIFE HABITATS WILL BE PROTECTED, PRESERVED, AND, WHERE PRACTICAL, RESTORED SO AS TO MAINTAIN THEIR VIABILITY AS HABITATS.

EXPLANATION OF POLICY

Part of the North and South Tivoli Bays Significant Habitat is located in the Village of Tivoli.

It is essential that any potential impacts on North and South Tivoli Bays be evaluated with respect to its use for environmental research and education, and the need to maintain natural or controlled experimental conditions. Any activity that impacts on the tidal flows in the bay and wetlands may have serious consequences for the fish and wildlife, since these actions may significantly affect the vegetative composition. Additionally, changes in existing patterns of water quality, turbidity, temperature or depth would impact directly on the species using this freshwater wetland and bay complex. Freshwater inflows from Stony Creek and the Saw Kill are especially important. Non-point source pollutants from the watershed, including herbicides, could have a detrimental effect on the fish and wildlife habitat. Elimination of wetland or shallow areas through dredging, filling, or bulkheading would result in a direct loss of valuable habitat. Activities that would subdivide this relatively large, undeveloped area into smaller fragments should be restricted. Extensive cutting of the forest vegetation surrounding the bays could adversely affect use of the area by many fish and wildlife species.

See Policies 12, 33, and 37.

POLICY 7A THE LOCALLY SIGNIFICANT HABITATS OF STONY CREEK AND THE HUDSON RIVER ALONG TIVOLI'S WATERFRONT WILL BE PROTECTED, PRESERVED AND IMPROVED. THE HUDSON RIVER BLUFFS, TIVOLI BAY, AND STONY CREEK SHOULD BE PROTECTED FROM OVERDEVELOPMENT.

EXPLANATION OF POLICY

It has been proposed that the Stony Creek water classification be upgraded to "A" (suitable for a public water supply). This action will impact water discharge permits in the Stony Creek watershed and over time improve the stream's water quality.

Conservation easements should be utilized to meet land buffer preservation goals for the North Tivoli Bay area (Note map #5). Conservation easements would be less expensive than fee title acquisition of land and would maintain the property on the Village tax rolls.

Additionally, the Village should work with DEC and area farmers to insure that coastal waters and especially Tivoli Bays are protected from non-point source pollution.

See Policies 12, 33, and 37.

POLICY 8 PROTECT FISH AND WILDLIFE RESOURCES IN THE COASTAL AREA FROM THE INTRODUCTION OF HAZARDOUS WASTES AND OTHER POLLUTANTS WHICH BIO-ACCUMULATE IN THE FOOD CHAIN OR WHICH CAUSE SIGNIFICANT SUBLETHAL OR LETHAL EFFECT ON THOSE RESOURCES.

**POLICY 8A THE DISPOSAL OF SEPTIC WASTE AND THE ESTABLISHMENT
OF DUMPS WITHIN THE VILLAGE LIMITS AND WITHIN THE
STONY CREEK WATERSHED SHALL NOT BE ALLOWED.**

EXPLANATION OF POLICY

Hazardous wastes are unwanted by-products of manufacturing processes and are generally characterized as being flammable, corrosive, reactive, or toxic. More specifically, hazardous waste is defined in Environmental Conservation Law as "waste or combination of wastes which because of its quantity, concentration, or physical, chemical or infectious characteristics may: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed or otherwise managed." A list of hazardous wastes has been adopted by DEC (6 NYCRR Part 371).

The handling (storage, transport, treatment and disposal) of the materials included on this list is being strictly regulated in New York State to prevent their entry or introduction into the environment, particularly into the State's air, land, and waters. Such controls should effectively minimize possible contamination of and bio-accumulation in the State's coastal fish and wildlife resources at levels that cause mortality or create physiological and behavioral disorders.

Other pollutants are those conventional wastes, generated from point and non-point sources, and not identified as hazardous wastes but controlled through other State laws.

It is important to preserve the quality of the water in Stony Creek. The LaMunyan construction and demolition landfill and the Village of Tivoli landfill are in the Stony Creek watershed, as is the proposed landfill for incinerator ash from the Dutchess County Resource Recovery facility. The Village is extremely concerned about the potential adverse impacts from the incinerator ash landfill since it is within the Stony Creek Watershed.

Village law requires that a local permit be issued for disposal of waste within the Village limits.

The pumping of cesspools and septic tanks shall be permitted; however, the disposal of the contents thereof shall not be permitted within the Village of Tivoli except as approved by the Village Board.

No dump as defined in Village law shall be permitted within the Village of Tivoli except as approved by the Village Board. No burning of garbage, trash, refuse, junk or waste material of any kind shall be permitted in the Village of Tivoli except as approved by the Village Board.

The disposal of hazardous waste is subject to existing local laws and laws of the State of New York regulating hazardous waste. Strict enforcement should continue at the State level.

For the purpose of this policy, railroad ties and construction debris shall be considered hazardous waste. Conrail shall be discouraged from using the Village waterfront area as an intermediate storage facility for railroad ties and other debris. Further, Conrail shall be strongly encouraged by the Village to remediate any dumping of railroad ties and construction debris that has already taken place along the railroad tracks in the Village of Tivoli.

See Policies 7, 7A, 31A, 36, 38, 38A, 39, and 40A.

POLICY 9 EXPAND RECREATIONAL USE OF FISH AND WILDLIFE RESOURCES IN COASTAL AREAS BY INCREASING ACCESS TO EXISTING RESOURCES, SUPPLEMENTING EXISTING STOCKS, AND DEVELOPING NEW RESOURCES. SUCH EFFORTS SHALL BE MADE IN A MANNER WHICH ENSURES THE PROTECTION OF RENEWABLE FISH AND WILDLIFE RESOURCES AND CONSIDERS OTHER ACTIVITIES DEPENDENT ON THEM.

EXPLANATION OF POLICY

Recreational uses of coastal fish and wildlife resources include consumptive uses such as fishing and hunting, and non-consumptive uses such as wildlife photography, bird watching and nature study.

Any efforts to increase recreational use of these resources will be made in a manner which takes into consideration other activities dependent on these resources. Also, such efforts must be done in accordance with existing State law and in keeping with sound resource management considerations. Such considerations include biology of the species, carrying capacity of the resource, public demand, costs and available technology.

POLICY 9A IMPROVE PUBLIC ACCESS TO THE HUDSON RIVER IN AREAS PUBLICLY OWNED.

EXPLANATION OF POLICY

New York State DEC should increase the public access to the Tivoli Bay area by allowing public use of buffer lands around Tivoli Bay for recreation purposes and in a manner compatible with protection of the resources.

POLICY 10

FURTHER DEVELOP COMMERCIAL FINFISH, SHELLFISH, AND CRUSTACEAN RESOURCES IN THE COASTAL AREA BY: (1) ENCOURAGING THE CONSTRUCTION OF NEW, OR IMPROVEMENT OF EXISTING ON-SHORE COMMERCIAL FISHING FACILITIES; (2) INCREASING MARKETING OF THE STATE'S SEAFOOD PRODUCTS; AND (3) MAINTAINING ADEQUATE STOCKS AND EXPANDING AQUACULTURE FACILITIES. SUCH EFFORTS SHALL BE IN A MANNER WHICH ENSURES THE PROTECTION OF SUCH RENEWABLE FISH RESOURCES AND CONSIDERS OTHER ACTIVITIES DEPENDENT ON THEM.

EXPLANATION OF POLICY

Commercial fishing off Tivoli, and throughout the Hudson River, has historically been an active industry for many years. The economies of the industry and pollution in the River brought an end to this era after World War II. Recently, the environment for such activity has shown signs of improvement, although many obstacles still exist and actions which improve the quality and management of the fisheries stock and which provide onshore facilities for commercial fishing are encouraged given the limitations of the Tivoli waterfront.

Commercial fishery development activities must occur within the context of sound fishery management principles developed and enforced within the State's waters by the New York State Department of Environmental Conservation. Commercial fishing development efforts should be made in a manner which ensures the maintenance and protection of the renewable fishery resources. Actions by public agencies must be evaluated as to whether they will impede existing utilization or future development of the State's commercial fishing resources.

On the local level, within the Village of Tivoli, the provision of small scale commercial fishing, including the docking of fishing boats and the provision of related services, should be permitted where the land area is sufficient and the possible odor, traffic, and aesthetic impacts do not negatively impact adjacent land uses.

FLOOD AND EROSION HAZARD POLICIES

POLICY 11

BUILDINGS AND OTHER STRUCTURES WILL BE SITED IN THE COASTAL AREA SO AS TO MINIMIZE DAMAGE TO PROPERTY AND THE ENDANGERING OF HUMAN LIVES CAUSED BY FLOODING AND EROSION.

EXPLANATION OF POLICY

The erosion aspects of this policy are not applicable because there are no Coastal Erosion Hazard Areas in Tivoli. In coastal lands identified as being subject to high velocity waters

caused by hurricane or other storm wave wash, walled and roofed buildings or fuel storage tanks shall be sited landward of mean high tide; and no mobile home shall be sited in such area. In coastal lands identified as floodways, no mobile homes shall be sited other than in existing mobile home parks.

Where human lives may be endangered by major coastal storms, all necessary emergency preparedness measures should be taken including disaster preparedness planning. The Dutchess County Office of Disaster Preparedness and Civil Defense prepares plans for Dutchess County, including Tivoli.

Areas subject to a 100-year flood lie along Stony Creek, the railroad right-of-way, and the unnamed tributary emptying into North Tivoli Bay. The Village of Tivoli participates in the Regular Phase of the National Flood Insurance Program (Effective date: August 1, 1984).

No structure temporary or permanent; fill for any purpose; deposit; obstruction; storage of materials or equipment; or other uses shall be permitted which, acting alone or in combination with existing or future uses, will unduly affect the efficiency or the capacity of the floodway or unduly increase flood heights, cause increased velocities or obstruct flow under flood conditions.

See Policies 14 and 17.

POLICY 12 ACTIVITIES OR DEVELOPMENT IN THE COASTAL AREA WILL BE UNDERTAKEN SO AS TO MINIMIZE DAMAGE TO NATURAL RESOURCES AND PROPERTY FROM FLOODING AND EROSION BY PROTECTING NATURAL PROTECTIVE FEATURES INCLUDING BEACHES, DUNES, BARRIER ISLANDS AND BLUFFS. PRIMARY DUNES WILL BE PROTECTED FROM ALL ENCROACHMENTS THAT COULD IMPAIR THEIR NATURAL PROTECTIVE CAPACITY.

EXPLANATION OF POLICY

Beaches, dunes, barrier islands, bluffs, and other natural protective features help safeguard coastal lands and property from damage, as well as reduce the danger to human life, resulting from flooding and erosion. Excavation of coastal features, improperly designed structures, inadequate site planning, or other similar actions which fail to recognize their fragile nature and high protective values, lead to the weakening or destruction of those landforms. Activities or development in, or in proximity to, natural protective features must ensure that all such adverse effects are minimized.

See Policy 17A.

POLICY 13 **THE CONSTRUCTION OR RECONSTRUCTION OF EROSION PROTECTION STRUCTURES SHALL BE UNDERTAKEN ONLY IF THEY HAVE A REASONABLE PROBABILITY OF CONTROLLING EROSION FOR AT LEAST THIRTY YEARS AS DEMONSTRATED IN DESIGN AND CONSTRUCTION STANDARDS AND/OR ASSURED MAINTENANCE OR REPLACEMENT PROGRAMS.**

EXPLANATION OF POLICY

Erosion protection structures are widely used throughout the State's coastal area. However, because of improper design, construction and maintenance standards, many fail to give the protection which they are presumed to provide. As a result, development is sited in areas where it is subject to damage or loss due to erosion. This policy will help ensure the reduction of such damage or loss.

The old bulkhead at the river landing is the only riverfront erosion problem in the Village. This dangerous dock and bulkhead have been eroded severely by tidal fluctuation of ice over the past 100 years. This section of Tivoli's waterfront must be stabilized.

POLICY 14 **ACTIVITIES AND DEVELOPMENT INCLUDING THE CONSTRUCTION OR RECONSTRUCTION OF EROSION PROTECTION STRUCTURES, SHALL BE UNDERTAKEN SO THAT THERE WILL BE NO MEASURABLE INCREASE IN EROSION OR FLOODING AT THE SITE OF SUCH ACTIVITIES OR DEVELOPMENT, OR AT OTHER LOCATIONS.**

EXPLANATION OF POLICY

Erosion and flooding are processes which occur naturally. However, by his actions, man can increase the severity and adverse effects of those processes, causing damage to, or loss of property, and endangering human lives. Those actions include: the use of erosion protection structures such as groins, or the use of impermeable docks which block the littoral transport of sediment to adjacent shorelands, thus increasing their rate of recession; the failure to observe proper drainage or land restoration practices, thereby causing run-off and the erosion and weakening of shorelands; and the placing of structures in identified floodways so that the base flood level is increased causing damage in otherwise hazard-free areas.

See Policy 13.

POLICY 15 **MINING, EXCAVATION OR DREDGING IN COASTAL WATERS SHALL NOT SIGNIFICANTLY INTERFERE WITH THE NATURAL COASTAL PROCESSES WHICH SUPPLY BEACH MATERIALS TO LAND ADJACENT TO SUCH WATERS AND SHALL BE UNDERTAKEN IN A MANNER WHICH WILL NOT CAUSE AN INCREASE IN EROSION OF SUCH LAND.**

EXPLANATION OF POLICY

Coastal processes, including the movement of beach materials by water, and any mining, excavation or dredging in nearshore or offshore waters which changes the supply and net flow of such materials can deprive shorelands of their natural regenerative powers. Such mining, excavation and dredging should be accomplished in a manner so as not to cause a reduction of supply, and thus an increase of erosion, to such shorelands. Offshore mining is a future alternative option to land mining for sand and gravel deposits which are needed to support building and other industries.

There is no room for dredge spoils in the river landing area or along the riverfront in Tivoli. Since the channel is immediately adjacent to Tivoli's riverfront, it is unlikely that any mining, excavation or dredge activities would take place due to bedrock exposure underwater on Tivoli's side of the channel.

POLICY 16 **PUBLIC FUNDS SHALL ONLY BE USED FOR EROSION PROTECTIVE STRUCTURES WHERE NECESSARY TO PROTECT HUMAN LIFE, AND NEW DEVELOPMENT WHICH REQUIRES A LOCATION WITHIN OR ADJACENT TO AN EROSION HAZARD AREA TO BE ABLE TO FUNCTION, OR EXISTING DEVELOPMENT: AND ONLY WHERE THE PUBLIC BENEFITS OUTWEIGH THE LONG TERM MONETARY AND OTHER COSTS INCLUDING THE POTENTIAL FOR INCREASING EROSION AND ADVERSE EFFECTS ON NATURAL PROTECTIVE FEATURES.**

EXPLANATION OF POLICY

Public funds are used for a variety of purposes on the State's shorelines. This policy recognizes the public need for the protection of human life and existing investment in development or new development which requires a location in proximity to the coastal area or in adjacent waters to be able to function. However, it also recognizes the adverse impacts of such activities and development on the rate of erosion and on natural protective features and requires that careful analysis be made of such benefits and long-term costs prior to expending public funds.

See Policy 13.

POLICY 17 **WHENEVER POSSIBLE, USE NON-STRUCTURAL MEASURES TO MINIMIZE DAMAGE TO NATURAL RESOURCES AND PROPERTY FROM FLOODING AND EROSION. SUCH MEASURES SHALL INCLUDE: (1) THE SET BACK OF BUILDINGS AND STRUCTURES; (2) THE PLANTING OF VEGETATION AND THE INSTALLATION OF SAND FENCING AND DRAINING; (3) THE RESHAPING OF BLUFFS; AND (4) THE FLOOD-PROOFING OF BUILDINGS OR THEIR ELEVATION ABOVE THE BASE FLOOD LEVEL.**

EXPLANATION OF POLICY

Non-structural measures within identified flood hazard areas shall include, but not be limited to: (a) the avoidance of risk or damage from flooding by the siting of buildings outside the hazard area, and (b) the flood-proofing of buildings or their elevation above the base flood level.

This policy shall apply to the planning, siting and design of proposed activities and development, including measures to protect existing activities and development. To ascertain consistency with the policy, it must be determined if any one, or a combination of, non-structural measures would afford the degree of protection appropriate both to the character and purpose of the activity or development, and to the hazard. If non-structural measures are determined to offer sufficient protection, then consistency with the policy would require the use of such measures, whenever possible.

In determining whether or not non-structural measures to protect against erosion or flooding will afford the degree of protection appropriate, an analysis, and if necessary, other materials such as plans or sketches of the activity or development, of the site and of the alternative protection measures should be prepared to allow an assessment to be made.

POLICY 17A **BUILDING SETBACKS FROM BLUFFS, STREAMS AND WETLANDS SHALL BE SUFFICIENT SO THAT DANGER FROM FLOODING AND EROSION IS MINIMIZED.**

EXPLANATION OF POLICY

Flood prone areas along the Stony Kill are restricted from construction within 100 feet each side of the centerline by the Land Conservation zoning district. Within 1,000 feet of the riverfront and within 1000 ft. of the North Tivoli Bay area, building construction is limited to structures associated with agriculture, outdoor recreation, parks, playgrounds, and nature preserves. These shall be set back 50 feet from the tops of the bluff along the river.

The Village's participation in the Regular Phase of the National Flood Insurance Program addresses many of these problems through regulations pertaining to development in designated

flood hazard areas and includes such non-structural measures as setbacks, elevations above flood level, and floodproofing in flood hazard areas.

GENERAL POLICY

POLICY 18 TO SAFEGUARD THE VITAL ECONOMIC, SOCIAL AND ENVIRONMENTAL INTERESTS OF THE STATE AND OF ITS CITIZENS, PROPOSED MAJOR ACTIONS IN THE COASTAL AREA MUST GIVE FULL CONSIDERATION TO THOSE INTERESTS, AND TO THE SAFEGUARDS WHICH THE STATE HAS ESTABLISHED TO PROTECT VALUABLE COASTAL RESOURCE AREAS.

EXPLANATION OF POLICY

Proposed major actions may be undertaken in the coastal area if they will not significantly impair valuable coastal waters and resources, thus frustrating the achievement of the purposes of the safeguards which the State has established to protect those waters and resources. Proposed actions must take into account the social, economic and environmental interests of the State and its citizens in such matters that would affect natural resources, water levels and flows, shoreline damage, and recreation. Major actions, therefore, should take into account and be supportive of Tivoli's indigenous rural residential character.

PUBLIC ACCESS POLICIES

POLICY 19 PROTECT, MAINTAIN, AND INCREASE THE LEVEL AND TYPES OF ACCESS TO PUBLIC WATER-RELATED RECREATION RESOURCES AND FACILITIES SO THAT THESE RESOURCES AND FACILITIES MAY BE FULLY UTILIZED IN ACCORDANCE WITH REASONABLY ANTICIPATED PUBLIC RECREATION NEEDS AND THE PROTECTION OF HISTORIC AND NATURAL RESOURCES. IN PROVIDING SUCH ACCESS, PRIORITY SHALL BE GIVEN TO PUBLIC BEACHES, BOATING FACILITIES, FISHING AREAS AND WATERFRONT PARKS.

EXPLANATION OF POLICY

Public recreation resources are found in and adjacent to Tivoli Bays Estuarine Sanctuary and Significant Habitat. Access to this area should be improved by providing additional marked trails to the water's edge to allow hiking and portage of canoes to the Tivoli North Bay.

The hike from the existing DEC parking lots, located on Route 9G and Kidd Lane in Red Hook south of Tivoli, to the Estuarine Sanctuary is long and makes the sanctuary inaccessible to a

large group of people. Additional access to Tivoli Bays could be provided via the DEC easement in the Village of Tivoli and via a boat launch at the Riverfront landing area.

In response to the Greenway Council Report, the Village should explore linkages with access opportunities in adjoining municipalities, particularly Red Hook.

To ensure that public access to the waterfront is maintained and increased, the Village of Tivoli will:

- a) Preserve public access, both physical and visual, to the Hudson River and the opposite shoreline, wherever feasible, and discourage development that is insensitive to the preservation of access.
- b) Improve adjacent and upland views of the water wherever feasible, through private volunteer efforts and through site plan review and other land use controls.
- c) Seek cooperative agreements with the State and federal governments regarding long-term use and management of State and federal park lands and natural areas along the waterfront that insure public access for recreation and promote other opportunities for mutual cooperation and assistance.

The following guidelines will be used in determining the consistency of a proposed action with this policy:

1. The existing access from adjacent or proximate public lands or facilities to public water-related recreation resources and facilities shall not be reduced, nor shall the possibility of increasing access in the future from adjacent or proximate public lands or facilities to public water-related recreation resources and facilities be eliminated, unless in the latter case, estimates of future use of these resources and facilities are too low to justify maintaining or providing increased public access or unless such actions are found to be necessary or beneficial by the public body having jurisdiction over such access as the result of a reasonable justification of the need to meet systematic objectives.

The following is an explanation of the terms used in the above guidelines:

- a. Access - the ability and right of the public to reach and use public coastal lands and waters.
- b. Public water-related recreation resources or facilities -all public lands or facilities that are suitable for passive or active recreation that requires either water or a waterfront location or is enhanced by a waterfront location.

- c. Public lands or facilities - lands or facilities held by State or local government in fee simple or less-than-fee simple ownership and to which the public has access or could have access, including underwater lands and the foreshore.
 - d. A reduction in the existing level of public access - includes, but is not limited to, the following:
 - 1) The number of parking spaces at a public water-related recreation resource or facility is significantly reduced.
 - 2) The service level of public transportation to a public water-related recreation resource or facility is significantly reduced during peak season use and such reduction cannot be reasonably justified in terms of meeting systemwide objectives.
 - 3) Pedestrian access is diminished or eliminated because of hazardous crossings required at new or altered transportation facilities, electric power transmission lines, or similar linear facilities.
 - 4) There are substantial increases in the following: already existing special fares (not including regular fares in any instance) of public transportation to a public water-related recreation resource or facility, except where the public body having jurisdiction over such fares determines that such substantial fare increases are necessary; and/or admission fees to such a resource or facility, and an analysis shows that such increases will significantly reduce usage by individuals or families with incomes below the State government established poverty level.
 - e. An elimination of the possibility of increasing public access in the future includes, but is not limited to, the following:
 - 1) Construction of public facilities which physically prevent the provision, except at great expense, of convenient public access to public water-related recreation resources and facilities.
 - 2) Sale, lease, or other transfer of public lands that could provide public access to a public water-related recreation resource or facility.
 - 3) Construction of private facilities which physically prevent the provision of convenient public access to public water-related recreation resources or facilities from public lands and facilities.
2. Any proposed project to increase public access to public water-related recreation resources and facilities shall be analyzed according to the following factors:

- a. The level of access to be provided should be in accord with estimated public use. If not, the proposed level of access to be provided shall be deemed inconsistent with the policy.
 - b. The level of access to be provided shall not cause a degree of use which would exceed the physical capability of the resource or facility. If this were determined to be the case, the proposed level of access to be provided shall be deemed inconsistent with the policy.
3. The State will not undertake or fund any project which increases access to a water-related resource or facility that is not open to all members of the public.
4. In their plans and programs for increasing public access to public water-related resources and facilities, State agencies shall give priority in the following order to projects located: within the boundaries of the Federal-Aid Metropolitan Urban Area and served by public transportation; within the boundaries of the Federal-Aid Metropolitan Urban Area but not served by public transportation; outside the defined Urban Area boundary and served by public transportation; and outside the defined Urban Area boundary but not served by public transportation.

POLICY 20 ACCESS TO THE PUBLICLY-OWNED FORESHORE AND TO LANDS IMMEDIATELY ADJACENT TO THE FORESHORE OR THE WATER'S EDGE THAT ARE PUBLICLY OWNED SHALL BE PROVIDED, AND IT SHOULD BE PROVIDED IN A MANNER COMPATIBLE WITH ADJOINING USES. SUCH LANDS SHALL BE RETAINED IN PUBLIC OWNERSHIP.

EXPLANATION OF POLICY

Since there are little or no recreation facilities providing specific water-related recreational activities within Tivoli, access to the publicly-owned lands of the coast at large should be provided for activities and pursuits which require only minimal facilities for their enjoyment. Such access would provide for walking along the waterfront or to a vantage point from which to view the river. Similar activities requiring access would include bicycling, birdwatching, photography, nature study, fishing and hunting.

For those activities, there are several methods of providing access which will receive priority attention of the Tivoli LWRP. These include: the development of a coastal trails system and the provision of access across transportation facilities to the waterfront. Such facilities should be provided on public lands purchased by DEC to buffer the Tivoli Bays Estuarine Sanctuary. Any future development in the estates area should provide such facilities as part of site design.

Prior to any development occurring in the water or on the immediate waterfront, the New York State Office of General Services should be consulted for a determination of the State's interest in underwater or formerly underwater lands and for authorization to use and occupy these lands.

The following guidelines will be used in determining the consistency of a proposed action with this policy:

1. Existing access from adjacent or proximate public lands or facilities to existing public coastal lands and/or waters shall not be reduced, nor shall the probability of increasing access in the future from adjacent or nearby public lands or facilities to public coastal lands and/or waters be eliminated, unless such actions are demonstrated to be of overriding regional or statewide public benefit, or in the latter case, estimates of future use of these lands and waters are too low to justify maintaining or providing increased access.

The following is an explanation of the terms used in the above guidelines:

- a. (See definitions under Policy 19 of "access", and "public lands or facilities").
- b. A reduction in the existing level of public access - includes, but is not limited to, the following:
 - 1) Pedestrian access is diminished or eliminated because of hazardous crossings required at new or altered transportation facilities, electric power transmission lines, or similar linear facilities.
 - 2) Pedestrian access is diminished or blocked completely by public or private development.
- c. An elimination of the possibility of increasing public access in the future - includes, but is not limited to, the following:
 - 1) Construction of public facilities which physically prevent the provision, except at great expense, of convenient public access to public water-related recreation resources and facilities.
 - 2) Sale, lease, or other conveyance of public lands that could provide public access to public coastal lands and/or waters.
 - 3) Construction of private facilities which physically prevent the provision of convenient public access to public coastal lands and/or waters from public lands and facilities.

2. The existing level of public access within public coastal lands or waters shall not be reduced or eliminated.
 - a. A reduction in the existing level of public access - includes, but is not limited to, the following:
 - i) Access is reduced or eliminated because of hazardous crossings required at new or altered transportation facilities, electric power transmission lines, or similar linear facilities.
 - ii) Access is reduced or blocked completely by any public developments.
3. Public access from the nearest public roadway to the shoreline and along the coast shall be provided by new land use or development, except where (a) it is inconsistent with public safety, military security, or the protection of identified fragile coastal resources; (b) adequate access exists within one-half mile; or (c) agriculture would be adversely affected. Such access shall not be required to be open to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.
4. The State will not undertake or fund any project which increases access to a water-related resource or facility that is not open to all members of the public.
5. Proposals for increased public access to coastal lands and waters shall be analyzed according to the following factors:
 - a. The level of access to be provided should be in accord with estimated public use. If not, the proposed level of access to be provided shall be deemed inconsistent with the policy.
 - b. The level of access to be provided shall not cause a degree of use which would exceed the physical capability of the resource. If this were determined to be the case, the proposed level of access to be provided shall be deemed inconsistent with the policy.

RECREATION POLICIES

- POLICY 21** **WATER-DEPENDENT AND WATER-ENHANCED RECREATION WILL BE ENCOURAGED AND FACILITATED, AND WILL BE GIVEN PRIORITY OVER NON-WATER RELATED USES ALONG THE COAST, PROVIDED IT IS CONSISTENT WITH THE PRESERVATION AND ENHANCEMENT OF OTHER COASTAL RESOURCES AND TAKES INTO ACCOUNT DEMAND FOR SUCH FACILITIES. IN FACILITATING SUCH ACTIVITIES, PRIORITY SHALL BE GIVEN TO AREAS WHERE ACCESS TO THE RECREATION OPPORTUNITIES OF THE COAST CAN BE PROVIDED BY NEW OR EXISTING PUBLIC TRANSPORTATION SERVICES AND TO THOSE AREAS WHERE THE USE OF THE SHORE IS SEVERELY RESTRICTED BY EXISTING DEVELOPMENT.**
- POLICY 21A** **INCREASE PUBLIC ACCESS TO THE TIVOLI BAYS ESTUARINE SANCTUARY AND ADJACENT BUFFER LANDS THROUGH PROVISION OF A WIDE VARIETY OF WATER RELATED RECREATION FACILITIES AND EDUCATIONAL PROGRAMS.**
- POLICY 21B** **PROVIDE BOATING ACCESS TO THE HUDSON RIVER THROUGH CONSTRUCTION OF A STATE BOAT LAUNCH NEAR THE VILLAGE LANDING AND A CANOE LAUNCH INTO NORTH TIVOLI BAY.**

EXPLANATION OF POLICY

Water-related recreation includes such obviously water-dependent activities as boating, and fishing, as well as certain activities which are enhanced by a coastal location and increase the general public's access to the coast such as pedestrian and bicycle trails, picnic areas, scenic overlooks and passive recreation areas that take advantage of coastal scenery.

Because most waterfront land has been privately owned, the residents of Tivoli have generally experienced little contact with the resources of Tivoli North Bay. Purchases by DEC of upland buffer have created opportunities for overlooks, wildlife observation stations, and hiking trails. Such facilities should be developed in Tivoli which would link to similar facilities along the Sanctuary in the Town of Red Hook.

Educational programs should be developed for use in the Village of Tivoli summer recreation program for children. Field trips into the sanctuary could be provided for the children, supported by educational material in the Public Library and posting of scheduled educational programs on an announcement board at the Library or in Memorial Park.

Provided the development of water-related recreation is consistent with the preservation and enhancement of such important coastal resources as fish and wildlife habitats, aesthetically significant areas, historic and cultural resources, agriculture and significant mineral and fossil deposits, and provided demand exists, water-related recreation development (of a scale compatible with the limits of the resources and access opportunities) is to be increased and such uses shall have a higher priority than any non-coastal dependent uses, including non-water-related recreation uses. In addition, water-dependent recreation uses shall have a higher priority over water-enhanced recreation uses. Determining a priority among water-dependent uses will require a case by case analysis.

Construction of a canoe launch for canoe trips in the Sanctuary would provide for water dependent recreation and further wildlife observation activities.

The Village Landing has been identified in the Hudson River Access Forum's report as having significant potential for a boat launch. An existing gravel-surfaced ramp owned by CONRAIL is deteriorated. This should be repaired by either CONRAIL or DEC for use as a public boat ramp.

POLICY 22 DEVELOPMENT, WHEN LOCATED ADJACENT TO THE SHORE, WILL PROVIDE FOR WATER-RELATED RECREATION WHENEVER SUCH USE IS COMPATIBLE WITH REASONABLY ANTICIPATED DEMAND FOR SUCH ACTIVITIES, AND IS COMPATIBLE WITH THE PRIMARY PURPOSE OF THE DEVELOPMENT.

EXPLANATION OF POLICY

Many developments present practical opportunities for providing recreation facilities as an additional use of the site or facility. Therefore, whenever developments are located adjacent to the shore they should to the fullest extent permitted by existing law provide for some form of water-related recreation use unless there are compelling reasons why any form of such recreation would not be compatible with the development, or a reasonable demand for public use cannot be foreseen.

The types of development which can generally provide water-related recreation as a multiple use include, but are not limited to:

- parks
- mental health facilities
- hospitals
- schools, universities
- nature preserves
- multiple family residential uses, and
- appropriate commercial uses

Because the railroad tracks lie along the edge of the Hudson River in Tivoli, the types of uses likely to be provided outside of the Estuarine Sanctuary are passive forms of recreation such as trails and observation points for viewing the river and the western shorelands and for observing wildlife.

Prior to taking action relative to any development, agencies should consult with the State Office of Parks, Recreation, and Historic Preservation. And the Village for the opportunity to participate in project planning.

Appropriate recreation uses which do not require any substantial additional construction shall be provided at the expense of the project sponsor provided the cost does not exceed 2% of total project cost.

In determining whether compelling reasons exist which would make inadvisable recreation as a multiple use, safety considerations should reflect a recognition that some risk is acceptable in the use of recreational facilities.

HISTORIC RESOURCES AND SCENIC RESOURCES POLICIES

POLICY 23 PROTECT, ENHANCE AND RESTORE STRUCTURES, DISTRICTS, AREAS OR SITES THAT ARE OF SIGNIFICANCE IN THE HISTORY, ARCHITECTURE, ARCHEOLOGY OR CULTURE OF THE STATE, ITS COMMUNITIES, OR THE NATION.

EXPLANATION OF POLICY

Among the most valuable of the State's man-made resources are those structures or areas which are of historic, archeological, or cultural significance. The protection of these structures must involve a recognition of their importance by all agencies and the ability to identify and describe them. Protection must include concern not just with specific sites but with areas of significance, and with the area around specific sites. The policy is not to be construed as a passive mandate but must include effective efforts when appropriate to restore or revitalize through adaptive reuse. While the program is concerned with the preservation of all such resources within the coastal boundary, it will actively promote the preservation of historic and cultural resources which have a coastal relationship.

Three estates in Tivoli - Rosehill, Callendar House and the Pynes -with their outbuildings and environs are listed on the National Register of Historic Places as part of the Sixteen Mile Historic District. Also included in the District are the old Hudson River Landing on Friendship Street and lower Dock Road and St. Paul's Church on Woods Road. The old Village Firehouse has been listed on both the State and National Registers of Historic Places.

The structures, districts, areas or sites that are of significance in the history, architecture, archeology or culture of the State, its communities, or the Nation comprise the following resources:

- 1) A resource which is in a federal or State Park established, among other reasons, to protect and preserve the resource.
- 2) A resource on, nominated to be on, or determined eligible to be on the National or State Registers of Historic Places.
- 3) A resource on or nominated to be on the State Nature and Historic Preserve Trust.
- 4) An archeological resource which is on the State Department of Education's inventory of archeological sites.
- 5) A local landmark, park, or locally designated historic district that is located within the boundary of an approved local waterfront revitalization program.

All practicable means to protect structures, districts, areas or sites that are of significance in the history, architecture, archeology or culture of the State, its communities or the Nation shall be deemed to include the consideration and adoption of any techniques, measures, or controls to prevent a significant adverse change to such significant structures, districts, areas or sites. A significant adverse change includes, but is not limited to:

- 1) Alteration of or addition to one or more of the architectural, structural, ornamental or functional features of a building, structure, or site that is a recognized historic, cultural, or archeological resource, or component thereof. Such features are defined as encompassing the style and general arrangement of the exterior of a structure and any original or historically significant interior features including type, color and texture of building materials; entry ways and doors; fenestration; lighting fixtures; roofing, sculpture and carving; steps; rails; fencing; windows; vents and other openings; grillwork; signs; canopies; and other appurtenant fixtures and, in addition, all buildings, structures, outbuildings, walks, fences, steps, topographical features, earthworks, paving and signs located on the designated resource property. (To the extent they are relevant, the Secretary of the Interior's "Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings" shall be adhered to.)
- 2) Demolition or removal in full or part of a building, structure, or earthworks that is a recognized historic, cultural, or archeological resource or component thereof, to include all those features described in (a) above plus any other appurtenant fixture associated with a building structure or earthwork.
- 3) All proposed actions within 500 feet of the perimeter of the property boundary of the historic, architectural, cultural, or archeological resource and all actions within an

historic district that would be incompatible with the objective of preserving the quality and integrity of the resource. Primary considerations to be used in making judgement about compatibility should focus on the visual and locational relationship between the proposed action and the special character of the historic, cultural, or archeological resource. Compatibility between the proposed action and the resource means that the general appearance of the resource should be reflected in the architectural style, design, material, scale, proportion, composition, mass, line, color, texture, detail, setback, landscaping and related items of the proposed actions. With historic districts this would include infrastructure improvements or changes, such as, street and sidewalk paving, street furniture and lighting.

This policy shall not be construed to prevent the construction, reconstruction, alteration, or demolition of any building, structure, earthwork, or component thereof of a recognized historic, cultural or archeological resource which has been officially certified as being imminently dangerous to life or public health. Nor shall the policy be construed to prevent the ordinary maintenance, repair, or proper restoration according to the U.S. Department of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings of any building, structure, site or earthwork, or component thereof of a recognized historic, cultural or archeological resource which does not involve a significant adverse change to the resource, as defined above.

The NYS Office of Parks, Recreation, and Historic Preservation has identified the Tivoli area as sensitive for the presence of archeological sites, representing settlement patterns important to our understanding of the State's prehistory and history. Any ground-modifying construction should be preceded by an archeological investigation through consultation with the State Historic Preservation Officer when necessary.

POLICY 24 PREVENT IMPAIRMENT OF SCENIC RESOURCES OF STATEWIDE SIGNIFICANCE.

EXPLANATION OF POLICY

This policy is currently not applicable to the Tivoli LWRP because no Scenic Areas of Statewide Significance have, as yet, been designated by the NYS Secretary of State. However, the Department of State has completed the inventory and analysis work for proposing ten candidate Scenic Areas of Statewide Significance in the Hudson River Valley. The Village of Tivoli falls within the proposed Estate District Scenic Area of Statewide Significance. Designation of the Estate District by the Secretary of State is still pending.

POLICY 24A PREVENT IMPAIRMENT OF SCENIC RESOURCES INCORPORATED WITHIN THE MID-HUDSON HISTORIC SHORELANDS SCENIC DISTRICT.

EXPLANATION OF POLICY

The Village of Tivoli is wholly contained within the Mid-Hudson Historic Shorelands Scenic District, designated under Article 49 of the Environmental Conservation Law.

When considering a proposed action, agencies shall first determine whether the action could affect a scenic resource of statewide significance. This determination would involve: (a) a review of the coastal area map to ascertain if it shows an identified scenic resource which could be affected by the proposed action, and (b) a review of the types of activities proposed to determine if they would be likely to impair the scenic beauty of an identified resource. The following siting and facility-related guidelines are to be used to achieve this policy, recognizing that each development situation is unique and that the guidelines will have to be applied accordingly. Guidelines include:

- siting structures and other development such as highways, power lines, and signs, back from shorelines or in other inconspicuous locations to maintain the attractive quality of the shoreline and to retain views to and from the shore;
- clustering or orienting structures to retain views, save open space and provide visual organization to a development;
- incorporating sound, existing structures (especially historic buildings) into the overall development scheme;
- removing deteriorated and/or degrading elements;
- maintaining or restoring the original land form, except when changes screen unattractive elements and/or add appropriate interest;
- maintaining or adding vegetation to provide interest, encourage the presence of wildlife, blend structures into the site, and obscure unattractive elements, except when selective clearing removes unsightly, diseased or hazardous vegetation and when selective clearing creates views of coastal waters;
- using appropriate materials, in addition to vegetation, to screen unattractive elements;
- using appropriate scales, forms and materials to ensure that buildings and other structures are compatible with and add interest to the landscape.

PRESERVATION OF THE ESTATES

Each estate landscape must be carefully evaluated to determine its important historic and scenic elements. These may include the main house and yard, historic gardens and significant trees,

the gateway and gatehouse, the entry avenue, and accessory buildings. Every effort must be made to retain these elements within any new development.

Continued use of many of these estates as private dwellings is preferred, but adaptive reuse of the main house with or without additional changes in uses of the surrounding acreage may be necessary. If residential units or other new buildings are proposed, cluster type of development is the most desirable option to pursue. Unlike a traditional subdivision approach, cluster development can preserve the visual and historical integrity of the estate grounds by maintaining a single road access and screening new structures from the river and the main roadway.

The cluster technique can be effectively utilized to preserve the character of the estate property while accommodating new residential development. Clustering would provide a development pattern far more consistent with Scenic District objectives than a traditional lot-by-lot subdivision approach.

**POLICY 25 PROTECT, RESTORE OR ENHANCE NATURAL AND MAN-
MADE RESOURCES WHICH ARE NOT IDENTIFIED AS BEING
OF STATEWIDE SIGNIFICANCE, BUT WHICH CONTRIBUTE TO
THE OVERALL SCENIC QUALITY OF THE COASTAL AREA.**

EXPLANATION OF POLICY

See Policy 24A for a discussion of the Mid-hudson Historic Shorelands Scenic District.

Woods Road, from St. Paul's Church north to the Columbia County line, has been designated as a Scenic Road under Article 49 of the Environmental Conservation Law. The scenic corridor of Woods Road is predominantly rural with a canopy of trees, primarily evergreens. In the case of new development, a buffer of trees at least twenty-five feet deep should be preserved on either side of Woods Road and only a limited number of curb cuts or driveways should be allowed. Care should be taken not to encourage a level of traffic which would require widening of the road and loss of its intimate, winding character. Signs should be grouped at intersections to avoid proliferation of individual signs.

To improve the corridor of Route 9G, landscaping of existing businesses will be encouraged. Clustering of new businesses, limitation of curb cuts, and placing parking behind structures can be used to avoid strip development and associated negative visual impacts. The original landform should be retained wherever possible, and construction design and materials should reflect the historic nature of the area.

There are few opportunities for viewing the Hudson River from public property. Views are available from the end of Broadway, at the Village Landing, and from land west of the railroad tracks. These views should not be blocked by new development.

The opportunity for public overlooks will be created as DEC provides upland buffer along North Tivoli Bay. The buffer lands do slope up from the water and provide views to the Tivoli Bays, the Hudson River, and its western shorelands. Public facilities, such as overlooks with benches, should be provided by DEC so that local residents and other visitors can enjoy the views.

AGRICULTURAL LANDS POLICY

POLICY 26 **TO CONSERVE AND PROTECT AGRICULTURAL LANDS IN THE STATE'S COASTAL AREA, AN ACTION SHALL NOT RESULT IN A LOSS, NOR IMPAIR THE PRODUCTIVITY OF IMPORTANT AGRICULTURAL LANDS, AS IDENTIFIED ON THE COASTAL AREA MAP, IF THAT LOSS OR IMPAIRMENT WOULD ADVERSELY AFFECT THE VIABILITY OF AGRICULTURE IN AN AGRICULTURAL DISTRICT OR IF THERE IS NO AGRICULTURAL DISTRICT, IN THE AREA SURROUNDING SUCH LANDS.**

EXPLANATION OF POLICY

There is limited agricultural use of land in Tivoli at this time, but there is good potential for agricultural development because of the suitability of the soils. Agricultural land in the Village is separated into three parcels (see Map 8). The agricultural land within the Village is greater than 25% land of Statewide Significance, but less than 25% prime farmland. In addition, a portion of Dutchess County Agricultural District Number 20 is within the Village of Tivoli's Waterfront Revitalization Area. Land formerly in agricultural use within the Village is presently zoned 3 acre and 2 acre lot residential which provides for the principal uses of agriculture; dwelling - one family; farm; farm house; parks - public and private; and playgrounds.

Given the Program's application to a narrow strip of land, implementing a policy of promoting agricultural use of land must, to be practical, concentrate on controlling the replacement of agricultural land uses with non-agricultural land use as the result of some public action. The many other factors such as markets, taxes, and regulations, which influence the viability of agriculture in a given area, can only be addressed on a Statewide or national basis.

The Program policy requires a concern for the loss of any important agricultural land. However, the primary concern must be with the loss of agricultural land when that loss would have a significant effect on an agricultural area's ability to continue to exist, to prosper, and even to expand.

ENERGY AND ICE MANAGEMENT POLICIES

POLICY 27 **DECISIONS ON THE SITING AND CONSTRUCTION OF MAJOR ENERGY FACILITIES IN THE COASTAL AREA WILL BE BASED ON PUBLIC ENERGY NEEDS, COMPATIBILITY OF SUCH FACILITIES WITH THE ENVIRONMENT, AND THE FACILITY'S NEED FOR A SHOREFRONT LOCATION.**

EXPLANATION OF POLICY

Demand for energy in New York will increase, although at a rate slower than previously predicted. The State expects to meet these energy demands through a combination of conservation measures; traditional and alternative technologies; and use of various fuels, including coal, in greater proportion.

A determination of public need for energy is the first step in the process for siting any new facilities. The directives for determining this need are set forth in the New York State Energy Law. With respect to transmission lines and steam electric generating facilities, Article VII of the State's Public Service Law requires additional forecasts and establishes the basis for determining the compatibility of these facilities with the environment and the necessity for a shorefront location. With respect to electric generating facilities, environmental impacts associated with siting and construction will be considered by one or more State agencies or, if in existence, an energy siting board. The policies derived from these proceedings are entirely consistent with the general coastal zone policies derived from other laws, particularly the regulations promulgated pursuant to the Waterfront Revitalization of Coastal Areas and Inland Waterways Act. The Act is used for the purposes of ensuring consistency with the State Coastal Management Program and this Local Waterfront Revitalization Program.

In consultation with the Village of Tivoli, the Department of State will comment on State Energy Office policies and planning reports as may exist; present testimony for the record during relevant proceedings under State Law and use the State SEQR and DOS regulations to ensure that decisions on other proposed energy facilities (other than those certified under the Public Service Law) which would impact the waterfront area are made consistent with the policies and purposes of this Local Waterfront Revitalization Program.

POLICY 28 **ICE MANAGEMENT PRACTICES SHALL NOT DAMAGE SIGNIFICANT FISH AND WILDLIFE AND THEIR HABITATS, INCREASE SHORELINE EROSION OR FLOODING OR INTERFERE WITH THE PRODUCTION OF HYDROELECTRIC POWER.**

EXPLANATION OF POLICY

Prior to undertaking actions required for ice management, an assessment must be made of the potential effects of such actions upon the production of hydroelectric power, fish and wildlife and their habitats as will be identified in the Coastal Area Maps, flood levels and damage, rates of shoreline erosion damage, and upon natural protective features.

Following such an examination, adequate methods of avoidance or mitigation of such potential effects must be utilized if the proposed action is to be implemented.

POLICY 29 THE STATE COASTAL POLICY REGARDING THE DEVELOPMENT OF ENERGY RESOURCES ON THE OUTER CONTINENTAL SHELF IS NOT APPLICABLE TO TIVOLI.

WATER AND AIR RESOURCES POLICIES

POLICY 30 MUNICIPAL, INDUSTRIAL, AND COMMERCIAL DISCHARGE OF POLLUTANTS, INCLUDING BUT NOT LIMITED TO, TOXIC AND HAZARDOUS SUBSTANCES INTO COASTAL WATERS WILL CONFORM TO STATE AND NATIONAL WATER QUALITY STANDARDS.

EXPLANATION OF POLICY

Municipal, industrial, and commercial discharges include not only "end-of-the-pipe" discharges into surface and groundwater, but also plant site runoff, leaching, spillage, sludge and other water disposal, and drainage from raw material storage sites. Also, the regulated industrial discharges are both those which directly empty into receiving coastal waters and those which pass through municipal treatment systems before reaching the State's waterways.

POLICY 31 STATE COASTAL AREA POLICIES AND MANAGEMENT OBJECTIVES OF APPROVED LOCAL WATERFRONT REVITALIZATION PROGRAMS WILL BE CONSIDERED WHILE REVIEWING COASTAL WATER CLASSIFICATIONS AND WHILE MODIFYING WATER QUALITY STANDARDS. HOWEVER, THOSE WATERS ALREADY OVER-BURDENED WITH CONTAMINANTS WILL BE RECOGNIZED AS BEING A DEVELOPMENT CONSTRAINT.

EXPLANATION OF POLICY

Pursuant to the Federal Clean Water Act of 1977 (PL 95-217), the State has classified its coastal and other waters in accordance with considerations of best usage in the interest of the public and has adopted water quality standards for each class of waters. These classifications and standards

are reviewable at least every three years for possible revision or amendment. Local Waterfront Revitalization Programs and State coastal management policies shall be factored into the review process for coastal waters. However, such consideration shall not affect any water pollution control requirement established by the State pursuant to the federal Clean Water Act.

DEC Region 3 Fisheries Unit has proposed that Stony Creek be reclassified from "D" to "C(T)." Since the Creek is a source of water supply for Tivoli, its classification should be further upgraded to "A" above the dam to protect the water supply. In addition, the State Department of Health supports the recommendation to upgrade the classification to "A."

In 1987, the Chief of the Groundwater Quality Management Section of DEC reconfirmed the Department's intention to upgrade a portion of Stony Creek to Class "A" upstream from Tivoli's water supply intake point. This was in response to Tivoli's application for reclassification of Stony Creek to "AA" as submitted in July, 1986.

The Hudson River as it flows past Tivoli is classified "A", suitable for all uses including water supply, and should remain so classified.

See also Policies 7, 38.

**POLICY 32 ENCOURAGE THE USE OF ALTERNATIVE OR INNOVATIVE
SANITARY WASTE SYSTEMS IN SMALL COMMUNITIES
WHERE THE COSTS OF CONVENTIONAL FACILITIES ARE
UNREASONABLY HIGH, GIVEN THE SIZE OF THE EXISTING
TAX BASE OF THESE COMMUNITIES.**

EXPLANATION OF POLICY

Alternative systems include individual septic tanks and other subsurface disposal systems, dual systems, small systems serving clusters of households or commercial users, and pressure or vacuum sewers. These types of systems are often more cost effective in smaller less densely populated communities and for which conventional facilities are too expensive.

On the other hand, the Village is presently served by municipal water and sewer facilities except in the waterfront area. Connection of new development to these facilities will promote efficiency and would generally be the preferred option. However, in unusual circumstances the Village and other regulatory agencies could consider allowing smaller alternative systems.

**POLICY 33 BEST MANAGEMENT PRACTICES WILL BE USED TO ENSURE THE
CONTROL OF STORMWATER RUNOFF AND COMBINED SEWER
OVERFLOWS DRAINING INTO COASTAL WATERS.**

EXPLANATION OF POLICY

Best management practices include both structural and non-structural methods of preventing or mitigating pollution caused by the discharge of storm water runoff and combined sewer overflows. At present, structural approaches to controlling stormwater runoff (e.g., construction of retention basins) and combined sewer overflows (e.g., replacement of combined system with separate sanitary and stormwater collection systems) are not economically feasible. Proposed amendments to the Clean Water Act, however, will authorize funding to address combined sewer overflows in areas where they create severe water quality impacts. Until funding for such projects becomes available, non-structural approaches (e.g. improved street cleaning, reduced use of road salt) will be encouraged. The Village has an existing separated stormwater and sewage system, but there are still roof drains and sump pumps that empty into the sewer lines. This condition presents an enforcement problem that is difficult and costly to correct, but the Village is working on plans to do so.

See Policy 37.

POLICY 34 DISCHARGE OF WASTE MATERIAL INTO COASTAL WATERS FROM VESSELS SUBJECT TO STATE JURISDICTION WILL BE LIMITED SO AS TO PROTECT SIGNIFICANT FISH AND WILDLIFE HABITATS, RECREATIONAL AREAS AND WATER SUPPLY AREAS.

EXPLANATION OF POLICY

The discharge of sewage, garbage, rubbish, and other solid and liquid materials from watercraft and marinas into the State's waters is regulated. Priority will be given to the enforcement of this law in areas such as shellfish beds and other significant habitats, beaches, and public water supply intakes, which need protection from contamination by vessel wastes. Also, specific effluent standards for marine toilets have been promulgated by the Department of Environmental Conservation (6 NYCRR, Part 657).

Any new water-dependent activities on Tivoli's waterfront, where permitted, shall provide pump-out facilities to protect the "A" classification of the Hudson River and the Tivoli Bays Significant Habitat. In addition, such activities shall include, where appropriate and feasible, protective measures to mitigate impacts from fuel transfers, oil and grease from bilge pumpout, hydro-carbon emissions in exhaust gases, and impacts from toxic anti-foulant paints.

POLICY 35 DREDGING AND DREDGE SPOIL DISPOSAL IN COASTAL WATERS WILL BE UNDERTAKEN IN A MANNER THAT MEETS EXISTING STATE DREDGING PERMIT REQUIREMENTS, AND PROTECTS SIGNIFICANT FISH AND WILDLIFE HABITATS, SCENIC RESOURCES, NATURAL PROTECTIVE FEATURES, IMPORTANT AGRICULTURAL LANDS, AND WETLANDS.

EXPLANATION OF POLICY

Dredging often proves to be essential for waterfront revitalization and development, maintaining navigation channels at sufficient depths, pollutant removal and meeting other coastal management needs. Such dredging projects, however, may adversely affect water quality, fish and wildlife habitats, wetlands and other important coastal resources. Often these adverse effects can be minimized through careful design and timing of the dredging operation and proper siting of the dredge spoil disposal site. However, there is no room for dredge spoils in the river landing area or along the riverfront in Tivoli. Since the channel is immediately adjacent to Tivoli's riverfront, it is unlikely that any mining, excavation or dredge activities would take place due to underwater bedrock exposure on Tivoli's side of the channel.

POLICY 36 ACTIVITIES RELATED TO THE SHIPMENT AND STORAGE OF PETROLEUM AND OTHER HAZARDOUS MATERIALS WILL BE CONDUCTED IN A MANNER THAT WILL PREVENT OR AT LEAST MINIMIZE SPILLS INTO COASTAL WATERS; ALL PRACTICABLE EFFORTS WILL BE UNDERTAKEN TO EXPEDITE THE CLEANUP OF SUCH DISCHARGES; AND RESTITUTION FOR DAMAGES WILL BE REQUIRED WHEN THESE SPILLS OCCUR.

EXPLANATION OF POLICY

See Policy 39 for definition of hazardous materials.

For the purpose of this policy, creosote railroad ties are identified as hazardous materials and shall not be stored or disposed of in a manner which would contribute pollutants to the Hudson River or the Significant Habitat. Transfer of coal from river to land transportation modes also can contribute pollutants to the Hudson River and should be closely monitored.

POLICY 37 BEST MANAGEMENT PRACTICES WILL BE UTILIZED TO MINIMIZE THE NON-POINT DISCHARGE OF EXCESS NUTRIENTS, ORGANICS AND ERODED SOILS INTO COASTAL WATERS.

EXPLANATION OF POLICY

Best management practices used to reduce these sources of pollution include, but are not limited to, encouraging organic farming and pest management principles, soil erosion control practices, and surface drainage control techniques. Through the use of the Village Zoning Regulations and site plan review provisions, best management practices will be used to reduce such non-point pollution sources if any are identified in the future. Similar techniques are discussed as pertinent to the policies on erosion control (Policy 12) and stormwater runoff (Policy 33).

Guidelines regulating development or construction to be used in implementing this policy include the following:

1. Runoff or other non-point pollutant sources from any specific development must not be greater than would be the case under natural conditions. Appropriate techniques to minimize such efforts shall include, but not be limited to, the use of stormwater detention basins, rooftop runoff disposal, rooftop detention, parking lot storage and cistern storage.
2. The construction site, or facilities, should fit the land, particularly with regard to its limitations.
3. Natural ground contours should be followed as closely as possible and grading minimized.
4. Areas of steep slopes, where high cuts and fills may be required, should be avoided.
5. Extreme care should be exercised to locate artificial drainageways so that their final gradient and resultant discharge velocity will not create additional erosion problems.
6. Natural protective vegetation should remain undisturbed if at all possible; otherwise plantings should compensate for the disturbance.
7. The amount of time that disturbed ground surfaces are exposed to the energy of rainfall and runoff water should be limited.
8. The velocity of the runoff water on all areas subject to erosion should be reduced below that necessary to erode the materials.
9. Sufficient ground cover should be applied to restrain erosion on that portion of the disturbed area undergoing no further active disturbances.
10. Runoff from a site should be collected and detained in sediment basins to trap pollutants which would otherwise be transported from the site.
11. Provision should be made for permanent protection of downstream banks and channels from the erosive effects of increased velocity, and volume, and runoff resulting from facilities constructed.
12. The angle for graded slopes and fills should be limited to an angle no greater than that which can be retained by vegetative cover or other erosion control devices or structures.
13. The length, as well as the angle, of graded slopes should be minimized to reduce the erosive velocity of runoff water.

14. Rather than merely minimize damage, take the opportunity to improve site conditions wherever practicable.

POLICY 38 **THE QUALITY AND QUANTITY OF SURFACE WATER AND GROUNDWATER SUPPLIES, WILL BE CONSERVED AND PROTECTED, PARTICULARLY WHERE SUCH WATERS CONSTITUTE THE PRIMARY OR SOLE SOURCE OF WATER SUPPLY.**

EXPLANATION OF POLICY

Surface and groundwater are the principal sources of drinking water in the State, and therefore must be protected.

The Hudson River, as it flows past Tivoli, is classified "A" suitable for all uses including a public water supply. As a supplement to the Village water supply, however, the cost of pumping water from the Hudson up 300 feet to the height of the water tower is prohibitive. Stony Creek should be protected for its water supply and drainage attributes. However, Stony Creek is a limited resource, and is not a year round constant source of water. It is likely that future significant growth can only be satisfied by additional water supply from other sources, such as an intake from the Hudson River.

Recognizing that other communities along the Hudson River may look seriously toward the River for additional water supply needs, the Village of Tivoli would support the concept of (and participation with) a regional planning entity that would research the feasibilities of, and cumulative impacts associated with, possible regionalization of water supply needs from the Hudson River.

POLICY 38A **THE STONY CREEK AND ITS WATERSHED ARE THE PRIMARY WATER SUPPLY FOR THE VILLAGE OF TIVOLI. NO ACTION WILL BE UNDERTAKEN WHICH WILL ADVERSELY AFFECT PERCOLATION, INFILTRATION AND RECHARGE IN THE AREA OF STONY CREEK, VILLAGE WELLS OR THE TIVOLI CREEK WATERSHED.**

EXPLANATION OF POLICY

The Village has historically depended on groundwater for its water needs. In 1972 the Mill Pond Dam broke on the Stony Creek and a noticeable drop in the Village wells was noted. Since 1972, the Village has suffered a number of serious water shortages and has not been successful in locating alternative groundwater resources to meet the Village needs. The Village Board of Trustees decided, based on engineering studies, to dam Stony Creek and build a filtration plant to supplement existing groundwater resources. In order to protect this water

supply, the New York State Department of Environmental Conservation should upgrade the Stony Creek water classification to an "A". DEC-designated wetland #SG-2 should not be filled or encroached upon by development. Refer to policies 7A, 8A, 31A, 40A.

It is important to preserve the quality of the water in Stony Creek. The Lamunyan construction and demolition landfill and the Village of Tivoli landfill are in the Stony Creek watershed, as is the proposed landfill for incinerator ash from the Dutchess County Resource Recovery facility. The Village is extremely concerned about the potential adverse impacts from the incinerator ash landfill since it is within the Stony Creek watershed.

POLICY 39 THE TRANSPORT, STORAGE, TREATMENT AND DISPOSAL OF SOLID WASTES, PARTICULARLY HAZARDOUS WASTES, WITHIN COASTAL AREAS WILL BE CONDUCTED IN SUCH A MANNER SO AS TO PROTECT GROUNDWATER AND SURFACE WATER SUPPLIES, SIGNIFICANT FISH AND WILDLIFE HABITATS, RECREATION AREAS, IMPORTANT AGRICULTURAL LANDS AND SCENIC RESOURCES.

EXPLANATION OF POLICY

The definitions of terms "solid wastes" and "solid waste management facilities" are taken from New York's Solid Waste Management Act (Environmental Conservation Law, Article 27). Solid wastes include sludge from air or water pollution control facilities, demolition and construction debris, and industrial and commercial wastes.

Hazardous wastes are unwanted by-products of manufacturing processes generally characterized as being flammable, corrosive, reactive, or toxic. More specifically, waste is defined in Environmental Conservation Law (Section 27-0901 (3)) as "waste or combination of wastes which because of its quantity, concentration, or physical, chemical or infectious characteristics may: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or otherwise managed." A list of hazardous wastes (NYCRR Part 371) has been adopted by DEC.

Examples of solid waste management facilities include resource recovery facilities, sanitary landfills and solid waste reduction facilities. Although a fundamental problem associated with the disposal and treatment of solid wastes is the contamination of water resources, other related problems may include: filling of wetlands and littoral areas; atmospheric loading; and degradation of scenic resources.

As noted in other policies, Stony Creek supplies water to the Village, and it is thus imperative that the Stony Creek watershed be protected from pollution.

Conrail uses the waterfront area as a staging area for construction and repair activities, including temporary housing for employees. The staging area shall be operated in a manner that will not contribute pollutants to the soil, air, ground water and surface water.

See Policy 36, 37, 38.

POLICY 40 **EFFLUENT DISCHARGE FROM MAJOR STEAM ELECTRIC GENERATING AND INDUSTRIAL FACILITIES INTO COASTAL WATERS WILL NOT BE UNDULY INJURIOUS TO FISH AND WILDLIFE AND SHALL CONFORM TO STATE WATER QUALITY STANDARDS.**

EXPLANATION OF POLICY

A number of factors must be considered when reviewing a proposed site for facility construction. One of these factors is that the facility "not discharge any effluent that will be unduly injurious to the propagation and protection of fish and wildlife, the industrial development of the State, the public health, and public enjoyment of the receiving waters." The effects of thermal discharges on water quality and aquatic organisms will be considered by State agencies or, if applicable, a siting board when evaluating an applicant's request to construct a new electric generating facility.

POLICY 40A **EFFLUENT DISCHARGE FROM MAJOR STEAM ELECTRIC GENERATING AND INDUSTRIAL FACILITIES WILL NOT BE UNDULY INJURIOUS TO A PUBLIC WATER SUPPLY AND SHALL CONFORM TO STATE WATER QUALITY STANDARDS.**

EXPLANATION OF POLICY

Consolidated Edison has purchased large tracts of land east of Tivoli in the Town of Red Hook over the past several years. Any water discharge in the Stony Creek watershed from a major energy facility may significantly impact the water quality of the Stony Creek for public water consumption purposes. Any discharge in the vicinity of the Tivoli Bays may adversely impact the Significant Habitat. Refer to Policies 7, 30, 31, 36.

POLICY 41 **LAND USE OR DEVELOPMENT IN THE COASTAL AREA WILL NOT CAUSE NATIONAL OR STATE AIR QUALITY STANDARDS TO BE VIOLATED.**

EXPLANATION OF POLICY

New York's Coastal Management Program incorporates the air quality policies and programs developed for the State by the Department of Environmental Conservation pursuant to the Clean

Air Act and State laws on air quality. The requirements of the Clean Air Act are the minimum air quality control requirements applicable within the coastal area.

To the extent possible, the State Implementation Plan will be consistent with coastal lands and water use policies. Conversely, coastal management guidelines and program decisions with regard to land and water use and any recommendations with regard to specific sites for major new or expanded industrial, energy, transportation, or commercial facilities will reflect an assessment of their compliance with the air quality requirements of the State Implementation Plan.

The Department of Environmental Conservation will allocate substantial resources to develop a regulatory and management program to identify and eliminate toxic discharges into the atmosphere. The State's Coastal Management Program will assist in coordinating major toxic control programming efforts in the coastal regions and in supporting research on the multi-media nature of toxics and their economic and environmental effects on coastal resources.

POLICY 42 COASTAL MANAGEMENT POLICIES WILL BE CONSIDERED IF THE STATE RECLASSIFIES LAND AREAS PURSUANT TO THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS OF THE FEDERAL CLEAN AIR ACT.

EXPLANATION OF POLICY

The policies of the State and this Local Waterfront Revitalization Program concerning proposed land and water uses and the protection and preservation of special management areas will be taken into account prior to any action to change prevention of significant deterioration land classifications in coastal regions or adjacent areas. In addition, the Department of State will provide the Department of Environmental Conservation with recommendations for proposed prevention of significant deterioration land classification designations based upon State and Local Waterfront Revitalization Programs.

POLICY 43 LAND USE OR DEVELOPMENT IN THE COASTAL AREA MUST NOT CAUSE THE GENERATION OF SIGNIFICANT AMOUNTS OF THE ACID RAIN PRECURSORS: NITRATES AND SULFATES.

EXPLANATION OF POLICY

The New York Coastal Management Program incorporates the State's policies on acid rain. As such, the Coastal Management Program will assist in the State's efforts to control acid rain. These efforts to control acid rain will enhance the continued viability of coastal fisheries, wildlife, agricultural, scenic and water resources.

**POLICY 44 PRESERVE AND PROTECT TIDAL AND FRESHWATER
WETLANDS AND PRESERVE THE BENEFITS DERIVED FROM
THESE AREAS.**

EXPLANATION OF POLICY

There are no upland freshwater wetlands in the Village of Tivoli, but DEC-designated upland wetlands #SG-2 and #SG-4 east of the Village should be preserved because of their importance for groundwater recharge and pollutant treatment.

The Tivoli Bays Significant Habitat and Estuarine Sanctuary is also a DEC-designated wetland. Tidal wetlands include the following ecological zones: coastal freshwater marsh; intertidal marsh; coastal shoals, bars and flats; littoral zone; high marsh or salt meadow; and formerly connected tidal wetlands. These tidal wetland areas are officially delineated on the Department of Environmental Conservation's Tidal Wetlands Inventory Map.

Freshwater wetlands include marshes, swamps, bogs, and flats supporting aquatic and semi-aquatic vegetation and other wetlands so defined in the N.Y.S. Freshwater Wetlands Act and the N.Y.S. Protection of Waters Act.

The benefits derived from the preservation of tidal and freshwater wetlands include, but are not limited to:

- habitat for wildlife and fish, including a substantial portion of the State's commercial fin and shellfish varieties, and contribution to associated aquatic food chains;
- erosion, flood and storm control;
- natural pollution treatment;
- groundwater protection;
- recreational opportunities;
- educational and scientific opportunities; and
- aesthetic open space in many otherwise densely developed areas.

See policies 7, 38.