
APPENDIX J
Pine Barrens & Clearing Analysis from Riverside
Revitalization Action Plan

2015

**THEORETICAL PROGRAM SCENARIO
CENTRAL PINE BARRENS ANALYSIS**

October 2015



Riverside – Theoretical Program Scenario and Pine Barrens Analysis

Existing Conditions

Central Pine Barrens Comprehensive Land Use Plan – The groundwater underlying much of Long Island has been federally-designated as a sole source aquifer, and is essential to the potable public water resources serving much of Long Island. The area of Long Island under which the largest volume and highest quality of such groundwater is found is the pine barrens area, which occupies much of the east-central portion of Suffolk County, an area dominated by lesser amounts of development and extensive tracts of natural forest. The combination of the forest composition of the area which has adapted to the unique soil properties of the area provide treatment of water entering the aquifer. The Long Island Pine Barrens Protection Act (“the Act”), signed into New York State law in 1993, established a State-assisted process to preserve those portions of the pine barrens so that the public potable water supply and overlying natural areas would be protected.

Under the Act, an approximately 100,000-acre forested area in portions of the Towns of Southampton, Brookhaven, and Riverhead was mapped and designated as the Central Pine Barrens (“CPB”). The Act then divided the overall CPB in two parts: a 52,500-acre portion known as the Core Preservation Area (“CPA”), and the remainder was designated the Compatible Growth Area (CGA; 47,500 acres). Under the Act, protection of the natural (i.e., ecological) resources that dominate the CPA is necessary to protect potable public water resources that underlie the CPA. For those portions of the CPB that are not in the CPA, strategically-planned development is allowed, which may include the shifting of yield from sites in the CPA.

Pursuant to the Act, the CPB Joint Planning & Policy Commission (“the Commission”) was established, to prepare and administer the Comprehensive Land Use Plan (“CLUP”) to regulate future growth in the CPB. This plan was prepared and adopted in 1995, and was added to the NYS Environmental Conservation Law as Article 57. As intended by the Act, the CLUP provides procedures for the review of development applications in the CGA, based on a set of specific guidelines and standards. It is noted that, with few exceptions, development opportunities in the CPA are limited. Standards and guidelines for compatible development were established for areas located in the CGA in order to sustain habitat and unique ecosystems and preserve the quality of groundwater recharge in the region.

The CLUP was the subject of a SEQRA review, which included preparation of a Generic EIS and, after the required period for public and agency review and comment, a Findings Statement prepared by the Commission.

In addition to setting the standards and guidelines by which the Commission would review development applications, the CLUP allows for local municipalities to administer and conduct review of applications in the CPB. Such review must be performed under a locally-enacted ordinance that would be subject to the review and approval of the Commission. For applications undergoing local review, the CLUP standards are required to be incorporated into local land use

and development procedures and ordinances, whereas the CLUP guidelines could be utilized by municipalities on a discretionary basis. The Town of Southampton adopted the standards of the CLUP into Article XXIV, Chapter 330 of its Town Code, and established Overlay Districts to implement many of the guidelines suggested in the CLUP.

The CLUP and, by extension, the Town Code in Section 330-217 (Central Pine Barrens Overlay District), includes a number of terms defined in the Act, including a description of what constitutes “development” and thereby what types of application would be subject to Commission or Town review. The Town Central Pine Barrens Overlay District incorporated the “Standards” of the CLUP and reference the Town’s Aquifer Protection Overlay District for vegetation clearance limits. Projects which do not conform to the Central Pine Barrens Overlay District are referred to the Commission for review under a “hardship.” The Act defines the term “hardship,” for those applications that do not meet the requisite standards and sets the criteria under which a requested waiver for such an application is to be reviewed. Finally, the Act defines the term “Development of Regional Significance”, and requires that applications meeting this definition be reviewed by the Commission and meet all of the standards and guidelines of the CLUP or seek a hardship.

It is noted that at Article 57; §57-0105, the Legislative Findings and Intent, establish a direct link between the Central Pine Barrens and the Peconic Bay system, with specific reference to the, “...*interdependent and reciprocal relationship between human activities and natural processes, and where fishing, agriculture and tourism have been dominant industries for more than three hundred fifty years...*” An excerpt of this legislative intent is provided below to allow for further understanding of the critical link between the Pine Barrens and the Peconic Bay system:

The legislature hereby finds that eastern Long Island contains a maritime region of statewide importance known as the Pine Barrens-Peconic Bay system. The legislature finds that within the Pine Barrens-Peconic Bay system the federal, state, county and local governments own and manage significant properties in the form of parks, preserves, historic sites and protected open space, where there is an interdependent and reciprocal relationship between human activities and natural processes, and where fishing, agriculture and tourism have been the dominant industries for more than three hundred fifty years. The legislature also finds that within the Pine Barrens-Peconic Bay system natural processes have created unique landforms such as Robin's Island, Shelter Island, Gardiners' Island, Fisher's Island, Long Island's North and South Forks, and numerous wetlands, bluffs and beaches. The legislature finds that the Long Island Pine Barrens, an area encompassing over one hundred thousand acres in the county of Suffolk, is of critical importance to the state because it overlies the largest source of pure groundwater in New York. The Pine Barrens are interconnected to the Peconic Bay system by the Peconic River, the longest groundwater river in New York, and the ecologic and hydrologic integrity of this system should be protected in a comprehensive plan adopted by the state and individual local governments. The legislature also finds that the Pine Barrens-Peconic Bay system contains one of the greatest concentrations and diversities of endangered, threatened and special concern species of plants and animals to be found in the state, and that protection of their habitats is in the best interest of the people of New York. The legislature further finds that the Pine Barrens-Peconic Bay system contains many other unique natural, agricultural, historical, cultural and recreational resources that are mutually supportive and ultimately dependent upon maintenance of the hydrologic and ecologic integrity of this region. Therefore, the legislature finds that the purpose of this title is to allow the state and local governments to protect, preserve and properly manage the unique natural

resources of the Pine Barrens-Peconic Bay system and to encourage coordination of existing programs and studies affecting land and water resources in the region and to protect the value of the existing public and private investment that has already been made to acquire land in the region.¹

The interrelationship between the Pine Barrens and Peconic Bay is evident in Riverside. The Study Area includes a significant portion of shoreline frontage along the Peconic River north of NYS Route 24 and is opposite existing downtown Riverhead which lies to the north. The balance of the Study Area lies south of Route 24 and is within the Central Pine Barrens. Riverside is an area that was subject to relatively dense development and subdivision of land prior to both Article 6 of the Suffolk County Sanitary Code (“SCSC”) and the CLUP. As a result, residential uses are established on small lots in many areas of Riverside, and much of the area has been subject to development with resultant fragmentation and alteration of habitat, groundwater impacts, and resultant impact on the Peconic River. Therefore, it is expected that improvements to groundwater quality which are expected to occur over time within the Study Area will directly benefit the Peconic River, the Peconic Bay system and therefore, promote the Legislative Findings and Intent of Article 57, the Long Island Pine Barrens Maritime Reserve Act.

Other sections of this DGEIS provide important existing conditions information that is incorporated into this section by reference, in order to evaluate the Proposed Action and Theoretical Development Scenario in relation to the Standards and Guidelines of the CLUP. Specifically, existing geological conditions including topography and soils, existing water quality and existing ecological resources are referenced in separate sections of this document. **Sections 3.0, 4.0 and 5.0** will analyze the potential impacts of the proposed project as related to the CLUP in consideration of geologic, water and ecologic resources, respectively. These sections will be considered in the analysis of the Proposed Action against the Standards and Guidelines which include consideration of slopes, water protection and ecology in terms of protection of wetlands, unique habitat and species, natural vegetation, unfragmented vegetation and other ecological considerations.

Potential Impacts

The Pine Barrens Act and resulting Central Pine Barrens Land Use Plan recognize the need for balanced growth and development within the CGA provided that it is consistent with the ecological, habitat preservation and water resource protection goals of the CLUP. Representatives of the Master Developer, the Town of Southampton and the Town’s environmental consultant for the BOA and DGEIS met with the Pine Barrens Commission staff on two (2) occasions.² The purposed of the meetings were to inform the Pine Barrens Commission staff of the project, review the procedures under which the project would be considered by the Commission and establish an understanding of natural areas as a basis for

¹ <http://codes.lp.findlaw.com/nycode/ENV/57/1/57-0105>.

² The first meeting was at the Pine Barrens Commission office in Westhampton Beach on August 14, 2015. The second meeting was held in the field to observe conditions within the study area. John Pavacic, Executive Director and Julie Hargrave, Environmental Planner on staff were in attendance.

assessment of vegetative clearance limits as required under the CLUP. In addition, the Town, Master Developer and consultant presented the overall RRAP and intended plan and goals for Riverside at a regular public meeting of the Pine Barrens Commission on September 16, 2015.

During meeting with the Pine Barrens Commission and staff, the Proposed Action was described in terms of the steps involved in achieving the revitalization of Riverside. The overall project is a Brownfields Opportunity Area (“BOA”) study and Generic EIS process that is funded by the New York State Department of State (“NYSDOS”). NYSDOS recognizes that there are impediments to redevelopment and that Riverside is in substantial need of redevelopment and revitalization. This is particularly true in view of its unique attributes (proximity to Riverhead and the Peconic River, East End setting and area resources, wine country, beaches, golf courses, recreational resources, parks and natural beauty), as well as its challenges (poverty, crime, prostitution, substance abuse and lack of ability for improvement under current conditions). These conditions, State funding and support for the project and the Town and Master Developer commitment to the improvement were discussed.

It was noted during these meetings that the Proposed Action is the adoption of a voluntary overlay district that provides clear and consistent form-based zoning and incentives to opt in, to achieve a critical mass of redevelopment that will sustain the revitalization goals of the RRAP. No actual development will occur as a result of the Proposed Action, but the intent is that it will attract investment in the community that will lead to development and redevelopment. It was further explained that a “Theoretical Development Scenario” was prepared, that illustrates and quantifies a theoretical development program that may occur over a ten year period. This TDS is used as a basis for analysis in this DGEIS.

In terms of process, there was discussion that the expected extent of the project should be assessed through Pine Barrens Commission review. This would be consistent with prior precedent, and goals of Town and Master Developer in terms of identification of impediments to redevelopment. In the context of a BOA, the existing regulations of the CLUP are an impediment to redevelopment. Specifically, redevelopment of Riverside is expected to be concentrated in proximity to the existing “roundabout” at the south end of Peconic Avenue, and will radiate out from this area from increased land use density to decreased density. There is an intent to revitalize the existing Enterprise Zone Drive industrial subdivision area, and interconnect this area to Old Quogue Road and an improved road circulation system between Old Quogue Road, Riverleigh Avenue (CR 104) and Lake Avenue (CR 63). The primary impediment is the CLUP standard related to “Vegetation Clearance Limits,” and specifically that there are vestiges of natural vegetation occurring within areas proposed for redevelopment south and southeast of the roundabout, and areas of more substantial contiguous Pine Barrens vegetation in the Enterprise Zone Drive industrial subdivision and parcels some of the larger parcels and recent undeveloped subdivisions west of the industrial subdivision. Retaining the vestiges of natural vegetation³ would be an impediment to redevelopment.

³ Some of the natural vegetation is compromised, contains invasive species, is not characteristic of native pine barrens vegetation and is surrounded by suburban-type development.

The CLUP establishes an allowable amount of clearing for parcels within the CGA, based on the zoning of that parcel at the time of the Act. For example, areas zoned for lots of 15,000 SF lot are allowed 70 percent clearing, and the allowable clearing is decreased as zoning lot size increases, such that a 40,000 SF lot area is only allowed to clear 53 percent. Commercial, industrial and other mixed use zoning lots are allowed to clear 65 percent.⁴ Under the vegetation clearance limits, any lots within the Study Area that have some existing natural vegetation but exceed the allowable clearing in Figure 5-1 of the CLUP would not be able to remove additional vegetation. This would prevent redevelopment on many critical parcels within the Study Area and would be a substantial impediment to the vision of the Town for Riverside as embodied in the NYSDOS awarded grant and the RRAP which outline a strategy for improvements in Riverside.

The anticipated “process” of review as discussed with Pine Barrens Commission staff may provide a means to overcome impediments to redevelopment created by the CLUP. Specifically, the Study Area is intended to be viewed as a whole, whereby it is recognized that the proposed Riverside Overlay Districts are expected to stimulate redevelopment. Since additional development is an outcome of the Overlay Districts, the Proposed Action inherently includes the Theoretical Development Scenario that is used as a basis for this Draft GEIS. Since the Proposed Action includes the anticipated development within the Study Area, the clearing limits can be analyzed based on the Theoretical Development Scenario and logical redevelopment areas of the Study Area. This approach can be used to quantify and determine compliance or non-compliance, and once quantified, solutions can be formulated to overcome impediments and allow reasonable, controlled development that is consistent with the spirit and intent of the Pine Barrens Act, which includes consideration of maritime resources. This solution-oriented approach is based on an analysis of the Vegetation Clearance Limits (CLUP Standard S 5.3.3.6.1) as determined by the existing zoning, and then compared with the clearing which would occur as a result of the Theoretical Development Scenario.

On an overall basis, the Proposed Action is considered to be the enactment of the proposed Overlay Districts within Study Area, and the anticipated redevelopment as illustrated in the Theoretical Development Scenario would exceed the thresholds for a DRS. Therefore, in consultation with Pine Barrens Commission staff, it was determined that the Proposed Project and resultant Theoretical Development Scenario should be reviewed against all Standards and Guidelines that would apply to a DRS as outlined in Chapter 5 of the CLUP. This ensures a comprehensive review of conformity with the CLUP and allows for identification of other impediments to redevelopment which may exist.

It is important to recognize that there is no timetable for when development may occur. The Study Area contains numerous property owners, and the Riverside Overlay Districts promote assemblages of property for more comprehensive redevelopment that will meet form-based zoning guidelines for increased intensity of use with improved design components. As a result, even though the Proposed Action is considered as a DRS, it is not possible to know if and when development under the Overlay Districts will be implemented, nor is it possible to define exactly what the project may be, or when it will occur in terms of physical development of residential

⁴ See Figure 5-1, Clearance standards, Chapter 5: Standards and Guidelines for Land Use; CLUP.

units, commercial square footage or mixed-use projects, hence the use of a Theoretical Development Scenario for analysis purposes. It is the intent of the Overlay zoning to provide for an area wide planned development, rather than piecemeal redevelopment.

Consequently, this Draft GEIS will be used to analyze the Theoretical Development Scenario against DRS Standards and Guidelines, so that conformance and mitigation can be assessed and conditions and thresholds established for Future Actions that would ensure compliance with the CLUP. The purpose of a Generic EIS is to establish conditions and thresholds, and an entire section of this document is devoted to Future Actions (**Section 15.0**). In terms of Vegetation Clearance Limits, these Future Actions will note the development that could occur up until the time when clearing approaches the applicable limit. Any further removal of vegetation would require a Future Action in the form of a hardship or amendment of the CLUP. Such conditions/thresholds may include the need for a DRS application, pre-consideration of “hardship” waivers and required performance standards associated with such, and/or consideration for amendment of the CLUP to specifically address the needs of Riverside and protection of Pine Barrens. The solution options identified under Mitigation herein, and Future Actions (**Section 15.0**) will form the basis for the Town Board of the Town of Southampton (as lead agency) Statement of Findings, and any Findings Statement that the Pine Barrens Commission may adopt in the future as an involved agency in the decision-making process.

The most critical analysis, Vegetation Clearance Limits, is presented herein. The total acreage of all parcels within the Study Area that are within the Central Pine Barrens is 339.69 acres.⁵ As part of the analysis, all existing “natural vegetation” in the Pine Barrens portion of the Study Area was inventoried. This inventory involved interpretation of aerial photographs, ground-truthing of mapped findings, and field meeting with Pine Barrens Commission to review the defined areas of natural vegetation. Areas that are “naturalized” were included. Such areas may include invasive plants (most commonly Norway maple), but were vegetated and contained all components of a woodland, including the forb/herb layer, the shrub layer, and the canopy. Areas that were clearly disturbed and dominated by invasive plants (most notably Japanese knotweed) and did not contain the requisite woodland structure were not included. This inventory resulted in the map depicted as **Figure 6-2**. The total existing natural woodland area was determined to be 101.50 acres.

Further analysis was performed on the Study Area characteristics as related to prior subdivisions and consideration of natural vegetation in those prior subdivisions. It was noted that the mobile home park in the southwest part of the Study Area (located on the west side of Riverleigh Avenue) is densely developed, contains little natural vegetation, and is not intended to be changed in connection with the Theoretical Development Scenario. Similarly, the subdivision in the northwest part of the study area (located on the west side of Lake Avenue) is fully developed and contains minimal remaining natural vegetation in the rear yards of a few lots, and is also not intended to change under the Theoretical Development Scenario. In addition, both of these subdivisions were created and developed prior to the Pine Barrens Act and CLUP.⁶ As a result,

⁵ This acreage excludes roads and land north of SR 24 that is outside of the CPB and is therefore less than the total Study Area reported in other parts of the document.

the area of these two subdivisions was subtracted from the total parcel area within the Central Pine Barrens resulting in a total of 257.15 acres to be analyzed for clearing purposes within which 99.38 acres of natural vegetation remain.

The analysis then involved superimposing the Theoretical Development Scenario on the existing natural vegetation areas to determine the potential change in natural vegetation. The Theoretical Development Scenario was used as the development program and was referenced previously in **Section 2.0** (see **Appendix A-2**).

All parcels within 257.15 acre portion of the Study Area were analyzed in terms of their area, zoning at the time of the Pine Barrens Act, existing natural vegetation, allowable clearing (in acres and percent), and proposed natural vegetation to remain. **Table G-1** provides a summary of the results of this analysis.

**Table G-1
PINE BARRENS CLEARING ANALYSIS CALCULATIONS**

Category	Value
Study Area minus two previously developed subdivisions (acres)	257.15
Allowable Clearing (percent)	66.44
Allowable Clearing As Per 1993 Zoning (acres)	170.86
Natural Vegetation Required to Remain (acres) ¹	86.29
Existing Natural Area (acres)	99.38
Additional Allowable Clearing (acres)	13.09
Proposed Natural Vegetation to Remain (acres) ²	76.30
Overclearing (acres)	-9.99

Notes: 1. $100\% \text{ minus } 66.44\% = 33.56\%$ required natural to remain, times study area size of 257.15 acres = 86.29 acres
 2. Based on Theoretical Development Scenario

Based on the analysis, the blended amount of allowable clearing based on zoning is 66.44 percent, resulting in 170.86 acres. Analysis of existing natural vegetation within the Study Area finds that 99.38 acres of vegetation currently exist. Per Note 1 above, 33.56 percent is required to remain natural, or 86.29 acres. Therefore, an additional 13.09 acres may be cleared and still provide compliance with this Standard. It is noted that areas that may be cleared in the downtown area near the roundabout are primarily fragmented, surrounded by suburban development and in many cases contain a variety of invasive species. Based on this analysis, redevelopment may occur in areas within the downtown area provided that clearing does not exceed 13.09 acres of existing natural woodland. Clearing in excess of the 13.09 acres would require some form of further consideration. Under the full build out illustrated in the Theoretical Development Scenario, clearing would exceed the allowable Vegetation Clearance Limit by 9.99 acres.

A DRS must conform to all standards and guidelines of the CLUP, or receive appropriate relief. In this case, relief could be in the form of a hardship, or potentially the Pine Barrens Commission

could consider modification of the CLUP to consider the unique aspects of Riverside.⁷ Any such hardship or plan change would require offsetting mitigation to ensure that compliance with the spirit and intent of the Pine Barrens Act is achieved. A major consideration of the Article 57; §57-0105, Legislative Findings and Intent, establishes a direct link between the Central Pine Barrens and the Peconic Bay system as noted under Existing Conditions. The Riverside RRAP and resulting Theoretical Development Scenario is intended to significantly improve water quality through sewerage, stormwater management and other nitrogen removal technologies. Therefore, the redevelopment of Riverside will have a direct water quality benefit that is consistent with the Article 57 Legislative Findings and Intent, which would not otherwise occur. In addition, parts of Riverside (the Enterprise Zone Drive industrial subdivision and land to the west) is designated as a Development Rights Receiving Area within the CGA to allow for redemption of Pine Barrens Credits. Since the clearing associated with the Theoretical Development Scenario may exceed the Vegetation Clearance Limit by approximately 10 acres, a basis for mitigation can be established using vegetation retention in the Pine Barrens and the intent of the Development Rights Receiving Area. If a Southampton Pine Barrens credit is available and can be purchased and redeemed, a value can be established for the purpose of a Riverside Pine Barrens Preservation Fund (“RPBPF”). Since the only standard of concern is vegetation clearance, at least an equal amount of natural pine barrens should be retained as mitigation. A Pine Barrens Credit results in full preservation of the sending site in the CPA; however, to provide flexibility, if a CGA parcel is used for transfer, this would achieve retention of vegetation within the Central Pine Barrens. If a credit is approximately equal to an acre of land, and 53% of a 40,000 SF lot is permitted to be cleared as per Figure 5-1 of the CLUP, a mitigation multiplier of 2x the acres overcleared would result in an equivalent acreage of area to be mitigated, providing a basis for determining an appropriate transfer goal in terms of acres. As a result, 10 acres of additional clearing would warrant a measure of 20 acres or credits of mitigation fund. Since a Pine Barrens Credit (“PBC”) is a recognized unit of measure, this provides a basis for establishment of value for the purpose of the Riverside Pine Barrens Protection Fund. The Pine Barrens Credit Clearinghouse lists sales of credits from 1996 to 2014.⁸ Review of Southampton credits averaged \$68,959 over the past 4 years and fluctuated between a low of \$64,570 in 2011 and \$71,026 in 2014. Utilizing this data, a reasonable credit value of \$71,000 is assumed for further analysis in the Generic DEIS. Using these values (20 acres at \$71,000 per PBC as a unit of measure), a mitigation value of \$1,420,000 for the RPBPF is estimated as the minimum the fund would require for additional clearing of natural vegetation under the Theoretical Development Scenario. This concept can be used to establish a contribution on a square foot basis to perpetuate this fund. In concept, this fund should be considered for a variety of programs that would benefit natural vegetation in the Central Pine Barrens (particularly those within a 5 mile radius of Riverside), including but not limited to:

- Purchase and retirement of Pine Barrens Credits;

⁷ Under Article 57; §57-0119. 6. (k), the Commission is empowered, To adopt, amend and repeal, after public hearing (except in the case of rules and regulations that relate to the organization or internal management of the agency), such rules and regulations, consistent with this article, as it deems necessary to administer this article, and to do any and all things necessary or appropriate to carry out the purposes and policies of this article an exercise powers granted by law.

⁸ See: http://www.pb.state.ny.us/pbc/pbc_credit_sales_1996_to_present.pdf

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- Purchase of land in the CGA that would effectively preserve greater natural vegetation if preserved;
- Restoration of impacted areas to establish native pine barrens vegetation;
- Invasive species removal and control to increase the quality of the pine barrens ecosystem;
- ATV control, security and enforcement to ensure that reduction of existing natural vegetation through disturbance does not occur;
- Management programs that improve the health of the pine barrens ecosystem (e.g., fire management, southern pine beetle suppression); and
- Other potential programs that benefit natural vegetation in the Central Pine Barrens within 5 miles of Riverside.

The concept of a RPBPF is offered as mitigation to offset the “potential” overclearing that may occur as the Theoretical Development Scenario comes to fruition. Riverside is in dire need of revitalization and the commitment to realize this revitalization has been established by the New York State Department of State through the BOA grant, and the Town Board of the Town of Southampton through the implementation of the BOA grant and Generic DEIS process, selection of a Master Developer and receipt of the RRAP for the purpose of review in the Generic DEIS.

In summary, analysis of the portion of the Central Pine Barrens located within the Study Area reveals that small vestiges of natural vegetation exist within the proposed RO Districts in closest proximity to the roundabout and other large areas of contiguous natural pine barrens vegetation remain in the central portion of the Study Area. Up to 13.09 acres of existing natural vegetation can be removed while maintaining conformance with CLUP Standard S 5.3.3.6.1, Vegetation Clearance Limit. The full Theoretical Development Scenario would require 9.99 acres of clearing above the Vegetation Clearance Limit. It is not known if and when this will occur; however, a comprehensive approach is desired so that a clear path to revitalization is established early in the SEQRA and land use review process. Using a formulaic based strategy for a solution-oriented approach, the concept of a Riverside Pine Barrens Protection Fund is offered as mitigation to support either a hardship or a change in the Pine Barrens Plan to facilitate the revitalization of Riverside. This provides a basis for responsible redevelopment that will achieve the State and Town goals for Riverside, while ensuring conformance with the spirit and intent of the Pine Barrens Act, and perpetuating a fund to advance pine barrens protection goals on an ongoing basis.

Mitigation

- Ensure that not more than 13.09 acres of existing natural vegetation is removed within the Pine Barrens portion of the Study Area, unless and until the appropriate relief is granted by the Pine Barrens Commission.
- Obtain a hardship waiver, or modification of the CLUP for any clearing that would exceed 13.09 acres. Consider a Riverhead Pine Barrens Preservation Fund to advance benefits to natural vegetation in the Central Pine Barrens (particularly those within a 5 mile radius of Riverside), including but not limited to:

**Riverside Hamlet -Theoretical Development Scenario
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- Purchase and retirement of Pine Barrens Credits;
 - Purchase of land in the CGA that would effectively preserve greater natural vegetation if preserved;
 - Restoration of impacted areas to establish native pine barrens vegetation;
 - Invasive species removal and control to increase the quality of the pine barrens ecosystem;
 - ATV control, security and enforcement to ensure that reduction of existing natural vegetation through disturbance does not occur;
 - Management programs that improve the health of the pine barrens ecosystem (e.g., fire management, southern pine beetle suppression); and
 - Other potential programs that benefit natural vegetation in the Central Pine Barrens within 5 miles of Riverside.
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- Ensure that existing areas of higher quality contiguous pine barrens habitat is retained in the Study Area through careful site design.
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- Advance wastewater treatment opportunities, nitrogen removal, stormwater management, and other technologies that will improve both surface and groundwater quality in the Pine Barrens and resultant water quality in the Peconic Bay system, consistent with the Legislative Findings and Intent of Article 57 (see Water Resources, **Section 6.0**).