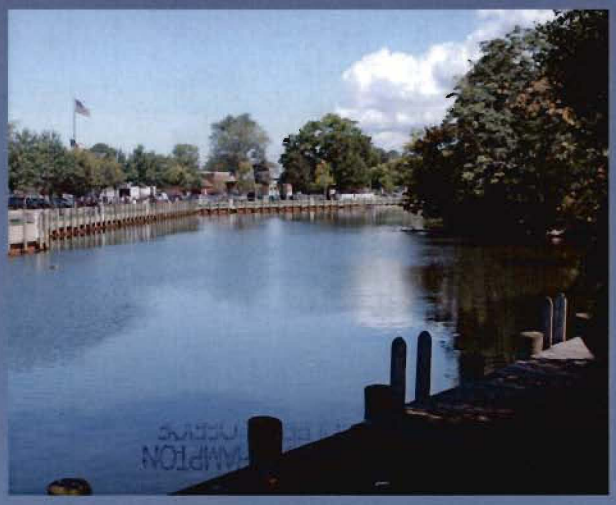
DRAFT Generic Environmental Impact Statement
Riverside BOA, Revitalization Plan and Zoning Amendments

Hamlet of Riverside, Town of Southampton, Suffolk County, New York



October 8, 2015

DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT (DGEIS)

RIVERSIDE BOA, REVITALIZATION ACTION PLAN AND ZONING AMENDMENTS

Hamlet of Riverside, Town of Southampton
Suffolk County, New York

SEQRA Classification:	Type I Action
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Date the Draft GEIS was accepted by the Lead Agency: October 13, 2015

Written comments on the Draft GEIS will be accepted by the Lead Agency until: November 12, 2015

This document was prepared for the Town of Southampton and the New York State Department of State with state funds provided through the Brownfield Opportunity Areas Program. Contract No. C1000364

TABLE OF CONTENTS

LIST OF TABLES

LIST OF CHARTS

LIST OF FIGURES *(Located behind Section 16.0, unless a Page number is listed)* **PAGE**

LIST OF APPENDICES

A Details of the Proposed Action
- Appendix A-1 – Riverside Revitalization Action Plan (RRAP) (July 2015)
  - Riverside Overlay Zone – Draft Code Amendments (Revised October 2015)
- Appendix A-2 – Theoretical Development Program

B Draft Brownfield Opportunity Area Step II Nomination Study

C SEQRA Documentation- EAF Parts I, II & II and Positive Declaration

D Water Resource Appendix
- D-1 2015 Groundwater Quality Data Distribution Area 39
- D-2 Model User's Guide
- D-3 SONIR Analysis

E Watershed Analysis

F Ecological Appendix
- F-1 NY Natural Heritage Program Correspondence
- F-2 Significant Coastal Fish and Wildlife Habitat Assessment Forms

G Riverside Hamlet Central Pine Barrens Clearing Analysis

H Zoning Supporting Materials

I Community Character-Related Documentation - Photographs of Study Area

J Community Services Appendix

K Traffic Impact Study, *Nelson & Pope Engineers & Surveyors,* October 2015

L Economic and Fiscal Supporting Materials

1.0 SUMMARY

1.1 Introduction

This Draft Generic Environmental Impact Statement (Draft GEIS) has been prepared in accordance with Section 8-0109 of the New York State Environmental Conservation Law (State Environmental Quality Review Act or SEQRA); the implementing standards and procedures of SEQR at 6 NYCRR Part 617; and other applicable regulatory standards and guidelines of environmental review and planning practice. The preparation of this Draft GEIS is in response to currently proposed Town of Southampton Zoning Map and Zoning Code amendments affecting land within the Hamlet of Riverside, Town of Southampton, Suffolk County, New York which has been drafted by the Master Developer, "Renaissance Downtowns" (hereafter "RD") for the purposes of guiding development and redevelopment of the Riverside community and the achievement of numerous Town and neighborhood goals.

1.2 Description of the Proposed Action

The Town of Southampton and the selected Master Developer, RD, are proposing the creation of a new Overlay District consisting of seven separate Overlay zones affecting 468 acres in the Hamlet of Riverside, with the highest development density permitted in the RO-1 Zone ("Hamlet Center") located around the Riverside traffic circle, and other mixed-use zones with variable uses, densities, functions, and building heights including the RO-2 ("Hamlet Neighborhood"), RO-2 ("Special"), RO-4 ("Gateway"), RO-5 ("Suburban"), RO-6 ("Waterfront"), and RO-7 ("Parkland") Zones. The provisions in the Overlay District regulations would be optional for landowners, who would be permitted to develop and/or redevelop their land under the standards and specifications of the existing zoning if they chose. The Proposed Action, however, includes incentives for increased density and building height to encourage landowners to explore redevelopment options under the proposed Overlay Zones that would be more consistent with the long-term vision and planning for area revitalization, rather than the underlying zoning which to date has not achieved this vision. The intent of the Overlay Zones, therefore, is to address the various challenges in the Riverside community identified by past plans and studies and encourage development through the creation of a mixed-use, master planned, form-based revitalization district.

The proposed Overlay Zones (RO-1, RO-2, RO-3, RO-4, RO-5, RO-6 and RO-7) will encourage a mix of retail stores, restaurants, offices, service-related businesses, hotels, light industries, cultural and recreational facilities, advanced care facilities, and diverse living options, along with improved transportation infrastructure, parking lots/garages/and on-street parking, pedestrian pathways, public green spaces, and access to the Peconic River. The Overlay Zones are intended to provide the flexibility to allow for varying uses, densities, building heights, and design options radiating out from a central core that would achieve coordinated redevelopment by encouraging and incentivizing a mix of land uses (e.g., commercial/retail and office uses with upper-level residential uses) on assembled properties or individual parcels. They would provide a distinct walkable hamlet center that will augment the community's sense of place, improve the aesthetic qualities of the built environment, enhance the overall quality of life of its residents, offer incentives for local investment, create new employment opportunities, provide a variety of goods

and services to locals and visitors, expand and diversify the local housing stock, and stimulate additional economic activity and fiscal well-being.

The subject Action, therefore, involves the creation of the new Overlay District and adoption of the corresponding use and dimensional regulations for future land use, development density, and building height as well as the form-based design guidelines for each of the proposed Overlay Zones. The Proposed Riverside Overlay District Map and the draft zoning regulations provide the details of the proposed Action while the RRAP provides a Theoretical Development Scenario that assists in the assessment of impacts under the proposed zoning (**Appendix A**). The following is an overview of the purposes, goals, and dimensional standards of each of the seven Overlay Zones and how they will shape the future development and redevelopment in the Study Area.

1.3 Description of Study Area and Setting

The 468-acre project Study Area is located in the Hamlet of Riverside, Town of Southampton, Suffolk County, New York. The boundaries of the Study Area are more specifically located:

- North of New York State's 2,700-acre David A. Sarnoff Preserve;
- South of Downtown Riverhead, the Peconic River, and the Southampton/Riverhead municipal boundary;
- East of the Suffolk County office complex (Evan K. Griffing Center), County courthouse (Arthur M. Cromarty Court Complex), County prison facilities (Suffolk County Jail), County Road 51 (Center Drive South), and the Little Peconic River;
- West of White Brook Drive and Black Creek Pond.

Figure 2-1 shows the location and boundaries of the Study Area. **Figure 2-2** is a 2013 aerial photograph showing buildings, development patterns, the local street network and other prominent features.

Riverside is an older, moderately dense suburban community consisting primarily of single-family neighborhoods, three mobile home parks and a scattered mix of mostly small one- to two-story commercial and industrial buildings, several scattered institutional uses (churches, an elementary school, and a head start facility), and parklands and nature preserves. Most of the commercial/business development in the Study Area is located along SR 24 or near the Riverside/Riverhead traffic circle where five State and County arterial roads intersect.

The Study Area is also located either partly or entirely within the below listed community service districts or areas, or are served by the community facilities described below.

Community Services Districts

- Riverhead Central School District
- Riverhead Fire District (*administration*)
- Riverhead Fire Department Service Area (*services*)

- Southampton Town Police District Sector A20 (*with headquarters at Jackson Avenue, Hampton Bays*)
- New York State Police Troop L jurisdiction (*with barracks in the Study Area at 234 Riverleigh Avenue in Riverside*)
- Flanders-Northampton Volunteer Ambulance District (*with headquarters at 641 Flanders Road*)
- National Grid Service Area (*natural gas distribution area*)
- Public Service Electric and Gas Company Service Area (PSE&G; *electricity*)
- Suffolk County Bus Routes 90, 92 and 8A
- Suffolk County Water Authority's Riverside Water District (RSWD)
- Suffolk County Water Authority Flanders Distribution Area (Distribution Area 39)
- Town of Southampton solid waste transfer stations (*the closest being 30 Jackson Avenue, Hampton Bays and 66 Old Country Road, Westhampton*).

Planning and Environmental Areas

- Adjacent to the "recreational" section of the Peconic River pursuant to the New York State Wild, Scenic and Recreational Rivers Act and implementing regulations (**Figure 4-1**).
- Town wetlands "critical area" due to the presence of NYSDEC wetlands (**Figure 4-2**);
- FEMA X and X-500 Zones and AE Zone (100-Year Special Flood Hazard Area) (**Figure 4-4**);
- Suffolk County Department of Health Services Groundwater Management Zone III (300 gpd/acre) and Groundwater Management Zone IV (600 gpd/acre) (**Figure 4-7**);
- Town Aquifer Protection Overlay District (APOD) (**Figure 6-1**);
- Town Central Pine Barrens Overlay District (CPBOD) (**Figure 6-2**);
- Central Suffolk Special Groundwater Protection Area (SGPA) (**Figure 6-3**);
- Central Pine Barrens Compatible Growth Area (CGA) (**Figure 6-2**);
- Central Pine Barrens Transfer of Development Rights Receiving Area (**Figure 6-2**); and

1.4 Public Benefits of the Proposed Action

First and foremost, the Proposed Action is intended to address many Town and community goals, needs and desires for revitalization, as expressed in previous planning studies (Town of Southampton 1999 Comprehensive Plan Update (Land Ethics, Inc.); 2004 Flanders/ Riverside/ Northampton Revitalization Study (Ferrandino & Associates, Inc; and Dvirka & Bartilucci, P.C./Greenwood Associates); 2006 Blight Study (Saccardi & Schiff, Inc.); 2008 Riverside Hamlet Plan (Hutton Associates & L.K. McLean Associates, P.C.); 2008 Draft GEIS for the Riverside Hamlet Plan (Cashin Associates, P.C.); 2009 Riverside Urban Renewal Plan (Saccardi & Schiff, Inc.); 2013 Flanders Riverside Corridor Sewer Feasibility Study (CDM Smith, H2M, and Bowne AE&T Group); and a Suffolk County Department of Public Works traffic circle assessment and redesign study). The overall goal of all of these studies has been to revitalize the Study Area with uses that would restore the character and functionality of this commercial corridor, promote economic development, provide housing and employment opportunities, ensure adequate capital infrastructure, in order to create a vibrant, walkable, sustainable, transit-

oriented hamlet center. The specific benefits to the Riverside community from the current 2015 RRAP and recommended zone changes and Zoning Code amendments are as follows:

Anticipated Community Benefits

- The fulfillment of long-established Town and community goals developed through extensive community participation, by helping to reestablish an appropriately-scaled, pedestrian-oriented mixed use hamlet center;
- The development and redevelopment of vacant and underutilized properties and providing a set of land uses that are appropriate and compatible with land uses in and around the Study Area;
- The diversification of the community's housing stock by providing both market rate and Community Benefit Units (50 percent of the total units), significantly increasing affordable workforce housing options for persons with diverse housing needs;
- The elimination of blight, cleaning-up of contaminated or brownfield sites, needed infill development, revitalization of the area, and increases in property values;
- The generation of many temporary construction jobs as well as more permanent part-time and full-time employment opportunities at future retail, restaurant, office, personal services, hospitality, industrial, recreational, and cultural facilities and new maintenance positions at multifamily residential buildings;
- The creation of a walkable multimodal (car, bus, train, taxi, bicycle and pedestrian) transit-oriented community and new road improvements that will mitigate traffic impacts to the maximum extent practicable;
- The creation of a new sense of place, with high levels and community interaction through building designs and parcel layouts, an increased level of "eyes on the street" to promote public safety, new pedestrian amenities, attractive architecture and landscaping, and outdoor community spaces, all under a coordinated form-based master plan;
- The construction of new buildings that are more energy efficient and fixtures and plumbing that conserves water for future generations;
- The enhancement of public access to the Peconic River and between the Riverside Hamlet Center and Downtown Riverhead;
- The use and connection to an advanced sewage treatment facility;
- The cleanup of existing environmental conditions during demolition and site preparation for new development;

A detailed analysis of Fiscal and Economic impacts was prepared for the Proposed Project. The analysis indicates that the Proposed Project will result in an increase in property taxes generated by the project parcels, due the increased assessed value of 636,117,077, and the return to the tax rolls of 36 parcels (or blocks) (which had been tax-exempt).

Anticipated Fiscal Impacts/Benefits (see **Section 9.2**):

- The Proposed Project will significantly increase taxes generated by the area, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. At full build-out, the Proposed Project is projected to generate over $12.6 million in annual taxes. This represents a net increase of over $10.3 million per year when compared to existing site conditions.

- Upon full build-out, the Proposed Project will levy over $9.7 million to the Riverhead CSD. This represents 77.4% of the total taxes projected to be generated by the site.
- The Proposed Project will levy over $355,000, or 2.8% of the taxes, to the Riverside & Baiting Hollow Library District.
- Over $550,000, or 4.4% of the total tax revenues are projected to be distributed to Suffolk County, which includes the General Fund, the Police Department and Out of County Tuition.
- Approximately 5.5% of the tax revenue is projected to be levied to the Town of Southampton, which includes the Town/Part Town funds, Highway Tax and the Town-Wide Lighting District. These three line items combine to total over $690,000 in projected tax revenues.
- The Riverhead Fire District is projected to levy $758,000, or 6% of the total tax revenue generated by the Proposed Project.
- The balance of the current property tax revenues are projected to be apportioned to various other local taxing jurisdictions including New York State Real Property Tax Law, New York State MTA Tax, Open Space Bonds, and Northampton Ambulance District.
- The 283 school-aged children are all assumed to be enrolled within public schools in the Riverhead CSD. It is projected that the 283 students will cost the Riverhead CSD approximately $5.2 million in annual expenditures upon full buildout and occupancy of the development.
- It is estimated that the school district will receive over $9.7 million in additional property taxes from the Proposed Project. This could help alleviate an increased burden on other taxpayers throughout the district.

Anticipated Economic Impacts/Benefits: Construction Period (see **Section 12.2**)

- The construction period of 10 years is projected to represent a total of over $636 million in investment. This direct output is projected to generate an indirect impact of over $254 million, and an induced impact of over $242 million, bringing the total economic impact on output to over $1.1 billion during the ten (10)-year construction period of 2016-2025.
- It is projected that the construction period will necessitate 306 full time equivalent (FTE) employees per year, over the course of ten (10) years. Under the Community Benefit Policy, a portion of these jobs go to residents of the town, with priority consideration going to residents of Riverside.

Anticipated Economic Impacts/Benefits: Annual Operations (see **Section 12.2**):

- It is assumed that the Proposed Project will begin the operational phase of development upon the completion of the first year of the ten (10)-year construction period. For the purpose of this analysis, construction will occur at a uniform rate each year until completed in 2025. The stabilized year of operations is assumed to occur in the following year, 2026.
- The Proposed Project is projected to generate over $56.4 million in annual operational revenues, stemming from annual rental income as well as annual sales revenues for each project component.
- The direct operational revenues are projected to generate an indirect impact of over $17 million.

- The induced impact of building operations alone totals $22.6 million. Added to that is the impact of the expenditures of the new residents, which is quantified only in induced impacts. Residential expenditure impacts add another $142.9 million in output. Induced impacts of operations and occupancy total $165.6 million per year. This additional output is generated through round-by-round sales made by households supported by or living in the development at various merchants in other sectors of the regional economy. These include local retailers, service providers, banks, grocers, restaurants, financial institutions, insurance companies, health and legal services providers, and other establishments in the region.
- The sum of the direct, indirect and induced impacts results in a total economic impact on output of over $239.0 million during annual operations once the project reaches full buildout.
- The anticipated Development Scenario is projected to generate 678 jobs each year during annual operations. These 678 direct employment positions are projected to result in an indirect impact of 117 jobs, and an induced impact of almost 1,200 jobs throughout the region, bringing the total economic impact of employment to 1,971 jobs during annual operations.
- The Proposed Project is anticipated to generate 1,971 full-time equivalent (FTE) employees during annual operations. Under the Community Benefit Policy, a portion of these jobs must go to residents of the Town, with priority consideration going to residents of Riverside.
- The 1,971 employees are anticipated to earn a total of approximately $88.9 million in collective labor income. This includes the direct labor income of $26.1 million each year, as well as the income of the indirect and induced employment supported by the operations and occupancy.

1.5 Potential Impacts

Soils and Topography

- Soil disturbance will occur as part of future development and redevelopment activities which could result in erosion, sedimentation, and dust during construction.
- Minor grading, filling, backfilling of soils and minor disturbance to gently sloping topography is expected.
- Some buildings to be demolished, infrastructure to be removed (cesspools, drainage structures, fuel tanks, floor drains, etc.), and sites to be cleared and redeveloped have been identified as “Sites of Environmental Concern” due to “recognized environmental conditions” (RECs). Still other locations may have environmental conditions that have yet to be discovered. Disturbance to these sites has the potential to release contaminants into the environment if not properly contained, managed and disposed.
- Some existing natural and landscaped areas will be replaced with impervious surfaces.

Water Resources

- Additional potable water will be required to serve the area and additional wastewater will be generated that must be treated and recharged into the ground.
- Additional stormwater will be generated that must be properly controlled and recharged.
- Future development will take place within the Central Pine Barrens Compatible Growth Area.

Ecological Resources

- Development may take place in proximity to wetlands and surface waters that could affect these resources.
- There is the potential for threatened or endangered wildlife occurring in the area.

Critical Environmental Areas and Other Environmental Districts

- Development will take place within or near areas identified as CEAs.
- Clearing could exceed current regulatory standards.
- Invasive species could become established if proper landscape plans are not instituted.
- Increased pollutant loading is possible.
- Applications for sites located within the Wild, Scenic and Recreational Rivers (WSRR) Recreational Area will require consistency reviews to demonstrate conformance to the land use requirements of the Wild, Scenic and Recreational Rivers Act.
- New York State Coastal Consistency reviews will be required for future projects proposed north of SR 24 in the future if they require State or Federal Permits.

Land Use & Zoning

- Additional development density will be permitted by the Proposed Action.
- Some buildings to be demolished, infrastructure to be removed (cesspools, drainage structures, fuel tanks, floor drains, etc.), and sites to be cleared and redeveloped have been identified as "Sites of Environmental Concern" due to "recognized environmental conditions" (RECs). Still other locations may have environmental conditions that have yet to be discovered. Disturbance to these sites has the potential to release contaminants into the environment if not properly contained, managed and disposed.

Community Character (Visual Resources and Cultural Resources)

- Some future development could be proposed within areas identified as having archaeological sensitivity or potential local historic significance.
- Additional building density and building height would be permitted by the Proposed Action.

Community Services

- Additional potable water will be required to serve the community.

- A sewage treatment plant will have to collect, treat and discharge wastewater and must be properly sited and designed.
- Additional school-age children are anticipated to be generated by the Proposed Action.
- Additional strain will be placed on emergency service provides.
- There will be a demand for additional emergency provider personnel.

Traffic and Transportation

- Additional traffic can be expected.

Air Quality

- Fugitive dust may be generated during the construction process.

Socioeconomic

- There is the potential for redevelopment to displace existing residents and businesses.

Demolition and Construction Activities

- Additional construction vehicle traffic can be expected. Some noise will be generated by construction activities.
- The demolition of structures and preparation of sites for redevelopment may require remediation prior to disturbance or construction.

1.6 Mitigation Measures

The following is a summary of the mitigation measures for individual and cumulative impacts of the Proposed Action.

Soils and Topography

- Soil test borings will be completed on development sites to identify subsurface conditions, determine their suitability for development, and to identify viable means for mitigation as warranted. If unsuitable subsoils are found, techniques including deep compaction or over-excavation and replacement of unsuitable fill materials will be utilized as applicable. Development areas will be stabilized, in accordance with the recommendations of a licensed civil engineer, prior to construction of structural elements.
- Erosion control and construction phasing plans will be prepared for future site developments and will be reviewed by the Town Engineer and Planning Board as part of site plan review.
- Prior to the initiation of demolition and construction activities, brownfields or other sites having "recognized environmental conditions" (RECs) will have to be remediated. Remediation activities are required to be completed according to the protocols, procedures, standards and documentation requirements of the appropriate supervising entity, such as SCDHS, NYS Department of Labor, and/or NYSDEC.

- Stormwater best management practices (BMPs) such as green infrastructure (landscaped buffers, rain gardens, green roofs, vegetated swales, etc.) should be utilized on future development sites where practicable that are adjacent to surface waters and 100-year flood zones.

Water Resources

- Wastewater flow and water supply permitting is subject to SCDHS approval;
- Future development exceeding SCDHS groundwater management density loading requirements under Article 6 of the SCSC must connect to an approved STP that provides advanced nitrogen treatment reduction capabilities;
- The siting of a new STP must be assessed further to ensure that the facility conforms with SCDHS and SCDPW requirements and that groundwater and surface waters are properly protected; Strict compliance with all SPDES effluent permit requirements for community wastewater treatment and disposal systems (STPs);
- No more than 15 percent of the site may be planted with fertilizer dependent vegetation; Limiting landscaped areas that will require irrigation, fertilization and pesticide applications by retaining natural vegetation to the maximum extent possible and revegetating areas that have been disturbed during the construction process but will remain undeveloped with native or well-adapted non-invasive species;
- Water conservation fixtures for both indoor plumbing and any outdoor irrigation to help reduce water consumption and wastewater generation and adherence to the proposed Sustainable Development Standards for reducing impacts to water outlined under Section 410 J. of the Proposed Code Amendments;
- Incorporation of pre-treatment of stormwater runoff prior to infiltration using "green infrastructure" practices such as vegetated swales, filter strips, rain gardens, green roofs other best management practices (BMPs) in accordance with the New York State Stormwater Management Design Manual and the Suffolk County Planning Commission Managing Stormwater Guide.
- Future developments within the Central Pine Barrens Compatible Growth Area must be found in conformance to Articles 7 and 12 of the SCSC;
- Preparation of a SWPPP as required to ensure compliance with water quality and quantity requirements pursuant to the NYSDEC General Permit for Stormwater Discharges from Construction Activities (GP 0-15-002) and Town of Southampton requirements.

Ecological Resources

- Delineation of the flagged wetland boundary within the vicinity of each wetland area will be necessary to determine the exact location of the wetland boundary, and the quality of habitat within the wetland adjacent area. Development within the regulated adjacent area of each wetland will be governed through appropriate regulatory review at which time appropriate protective measures for the wetlands will be determined.
- Should a project require a variance from NYSDEC Article 24 or Article 25 wetland regulations or Town wetland regulations, mitigation for project impacts will be required. Mitigation measures that may be offered in support of a variance application include:

  - Wetland creation
  - Wetland restoration
  - Invasive species removal
  - Improvements to existing drainage systems which currently contribute to poor water quality
  - Improvements to existing sanitary systems which currently contribute to poor water quality.
- If threatened or endangered wildlife are encountered on a project site, site specific mitigation measures will need to be developed and an Article 11 Incidental Take Permit or Letter of Non-Jurisdiction will be necessary from the NYSDEC.
- Development within proximity to a potential tiger salamander breeding pond would require pond and/or upland habitat surveys to determine the presence/absence of the species. Should the presence of the species be confirmed, the appropriate mitigation measures would need to be considered during site design, which would include preservation of habitat, installation of barrier curbing or flashing to prevent salamanders from entering into a developed area, provisions to address lighting, stormwater runoff and management plans for both the pond and preserved upland habitat.

Critical Environmental Areas and Other Environmental Districts

- Future development must comply with all standards and requirements of the APOD, CPBOD, NYSDEC freshwater wetlands permit conditions, and be consistent with the guiding principles and recommendations of the Central Pine Barrens Comprehensive Land Use Plan and the Peconic Estuary Conservation and Management Plan and area TMDL standard, except as may be waived pursuant to applicable laws and procedures after review and consideration by the agency or board overseeing the review and having authority over consistency and compliance.
- Demonstration of compliance with approved clearing limitation to ensure that not more than 13.09 acres of existing natural vegetation is removed within the Central 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 for overall ROD. Submit mitigation plan, in a form acceptable to the CPBC and the Town to address any excess clearing, which may include:
  - Contribution to a Riverside 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:
    - Purchase 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 pine barrens natural vegetation;
    - Invasive species removal and control to increase pine barrens natural vegetation;
    - ATV control, security and enforcement to ensure that natural vegetation impacts do not occur;

  - Management programs that improve the quality of pine barrens vegetation (e.g., fire management, pine beetle management, etc.); and
  - Other potential programs that benefit natural vegetation in the Central Pine Barrens within five miles of Riverside.
- Ensure that existing quality contiguous natural pine barrens habitat is retained in the Study Area through design.
- Advance wastewater treatment opportunities, nitrogen removal, stormwater management, other technologies that will improve water 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).

- No more than 15 percent site may be planted with fertilizer dependent vegetation such as certain grasses. Covenants and restrictions or the conditions of duly executed filed easements should be used to formalize such agreements and assist in any necessary enforcement actions.
- All future development should connect to the public water supply.
- Submission of a Community Wild, Scenic and Recreational Rivers designation in the Recreational area mapped along the western boundary of the Study Area, or maintain the Recreational designation and comply or seek variances upon any redevelopment of individual parcels.
- New York State Coastal Consistency reviews may be required for future projects proposed north of SR 24 in the future if they require State or Federal Permits.

Land Use & Zoning

- Incentive Bonus Verification: Applications opting into the Incentive Bonuses must demonstrate the application meets the requirements for minimum lot area and street frontage, Sustainability Standards.
- Phase I Environmental Site Assessments (and Phase II ESAs if determined necessary by the Phase I) shall be conducted to identify any existing recognized environmental conditions (RECs) or potential concerns relating to demolition and site preparation prior to demolition and development. An ESA will identify the need for testing to determine if RECs are present which require further testing, remediation, abatement, regulatory oversight or other appropriate action. Any redevelopment or property transfer will be subject to the necessary regulatory steps and agency oversight to properly investigate, and remediate if necessary, recognized environmental conditions warranting such action. Issues that must be considered include the presence of asbestos containing materials (ACM) or soil contamination that contains elevated concentrations of contaminants in excess of regulatory agency standards. Issues of concern shall include identification of potential issues associated with from floor drains, above- and below-ground fuel storage tanks, drywells, stormwater leaching pools, septic systems and cesspools, and past hazardous materials releases from storage, leaks, spills, mishandling of materials, intentional discharges, or other hazardous materials releases that have resulted in or may cause hazardous conditions. If hazardous conditions are identified, a plan to rectify these concerns will be developed and implemented.

Community Character (Visual Resources and Cultural Resources)

- If future development is proposed within identified areas of archaeological sensitivity that have not been previously disturbed, a Phase I archaeological survey/cultural resource evaluation will be required. A cultural resource evaluation should include contact with the SHPO for review. Additional analysis may be required to mitigate any potential impacts based on the findings of the cultural resource evaluation.
- Unless design guidelines are implemented for the ROD by the Town, every application for site plan approval for the construction of a building or structure requiring site plan review shall be referred by the Planning Board to the Board of Architectural Review and be reviewed by the entire Board. Applications reviewed under this subsection shall result in the preparation of an advisory report to assist the Planning Board in its consideration of the site plan. The advisory report shall be limited to the architecture of the proposed buildings, structures and signage and shall include a specific recommendation that the buildings, structures or signs be approved, denied or approved with conditions which relate specifically to the criteria set forth in § 330 and the ROD. If and when the Town adopts design guidelines as part of the ROD then the building official will perform a consistency review during the Site Plan Application process and make a recommendation to the Planning to Planning board specifically noting the Application's level of consistency with those mandatory design guidelines no further Architectural Review will be required under the ROD.
- Every application for a building permit for the construction of a building or structure not requiring site plan review shall be referred by the Building Administrator to the Board of Architectural Review and be designated by the Building Administrator as "substantial" or "nonsubstantial" construction. Applications for nonsubstantial construction may be reviewed by a committee of one member of the Board, but all applications for a sign permit and all applications for substantial construction shall be reviewed by the entire Board. Applications reviewed under this subsection shall be approved, denied or approved with conditions which relate specifically to the criteria set forth in Section 330.

Community Services

- Future development and redevelopment projects envisioned under the Proposed Action and Theoretical Development Scenario will require a source of potable drinking water and must connect to a public water supply. Written confirmation must be obtained from the SCWA, its successors or other public water provider demonstrating that an adequate supply of water is available to satisfy both the "domestic" (drinking water) and "non-domestic"(non-drinking water) needs of the project prior to issuance of a building permit.
- Sewage flow that exceeds SCSC Article 6 standards must connect to sewers and/or use other methods of acceptable mitigation such as the transfer of development rights or sanitary credits in accordance with Town, SCDHS and CPBJPPC standards and requirements.
- The expected substantial increase in taxes generated will help to offset the increased needs for and costs of community services.
- An additional 283 students are anticipated to be generated by the Proposed Action (phased over a ten year period as projects are designed and constructed). The Town and the Master Development will work with the Riverhead CSD to evaluate the demographic needs and expected number of students based on current growth trends and the additional students anticipated from the Proposed Action. Once a greater understanding of future enrollment is

completed, a determination of facility needs to accommodate this growth can be evaluated, including the cost of necessary facility improvements and potential funding mechanisms. A "Fair Share" mitigation program and fund will be established based on the Proposed Action's proportional share of additional school age children to assist in providing revenue for necessary evaluation and implementation of facility upgrades.

- Buildings must be constructed in conformance with New York State Fire and Building Codes and the recommendations of emergency service providers in terms of access and the provision of fire hydrants. In addition, use of sprinklers and fire/smoke alarms will assist in minimizing the potential need for fire protective services.
- The Fire Department/Fire Marshal will have the opportunity to review future proposed site plans to ensure that their needs, including provisions for emergency access, hydrant locations, sprinkler systems, fire alarms, and smoke and carbon monoxide detection, are properly addressed.
- The Fire Department will have the opportunity to provide input on site-specific plans, thereby requiring any site-specific mitigation measures necessary.
- Pursue establishment of third party billing (i.e., pay for service reimbursement program) which would permit the NFVA to bill private insurance companies for services rendered. This would help to mitigate future costs and offset any additional burden on the Town and its taxpayers. Some of the money that is saved by the Town could be allocated toward paying the copayments of residents, while persons who live outside of the community would be responsible for their own copayments. A special contractor could assist in the third party billing and provide greater administrative efficiency and a greater likelihood of payment.
- If Third Party Billing is not pursued or achieved consider hiring two additional paid EMTs and two critical care technicians or create a Town-wide ALS office under the Town's Public Safety Division so that personnel and resources can be pooled. The pooling of services, equipment, and costs would be a more efficient use of resources, while sharing the costs of service delivery throughout the Town. An estimated five Paramedics and one Supervisor would likely be needed in the future if this approach is chosen.
- Attract more ambulance personnel by giving preference to volunteers and any paid ambulance personnel who are residents in securing affordable or workforce housing to become available under the Proposed Action.

<u>Traffic and Transportation</u>

- Increases in traffic from the proposed project can be accommodated at some study intersections without any mitigation. Some locations will require mitigation ranging from adjustments to the signal timings, additional lanes and installation of a traffic signal. Although there will be changes in the LOS at some intersections, they will continue to operate at acceptable levels of service. Fair Share mitigation contribution to allow for the following mitigation implementation:
  - Optimize and adjust the splits at the signalized intersection of Flanders Road (NYS Route 24) and CR 105.
  - Redesign the northbound Old Quogue Road approach at its intersection with Flanders Road (NYS Route 24) to provide one right turn lane and one left turn lane.

- Redesign the northbound Vail Avenue approach at the intersection of Flanders Road (NYS Route 24) at Vail Avenue to provide one right turn lane and one left turn lane. In addition to the redesign of the northbound approach, re-stripe the painted median on Flanders Road just west of Vail Avenue as a center two-way left turn lane consistent with the rest of Flanders Road.
- Install a traffic signal at the intersection of CR 104 at Old Quogue Road and Ludlam Avenue.

Air Quality

- Construction activities must conform to Town Code Chapter 235 "Noise" regulations including conformance to the maximum prescribed sound pressure levels at the property line for activities occurring between the hours of 7:00 AM and 7:00 PM.
- Comply with NYSDEC air permit requirements if applicable, though major sources are not permissible (and minor facilities, such as auto uses, would require registrations through the DEC for minor emission sources).
- Require mitigation for fugitive dust related to construction activities using proper construction management techniques, erosion control measures, wetting of excessively dry soils.

Socioeconomic

- Implement Community Benefit Policies:
  - Demonstrate compliance with the Community Benefit Policies
  - Demonstrate provision for Community Benefit Units

Demolition and Construction Activities

- Truck activity is expected during the day (Monday-Saturday). All soil material removed from the project site will be transported in accordance with Town input. Truck traffic will be temporary and intermittent and utilize major streets and highways such as SR 24, CR 104, CR 63, CR 105, CR 51 to the extent practicable.
- Parking Management Plans and/or a Remediation Plans (where applicable) for development and redevelopment.
- Prior to the initiation of construction activities, remediation of sites where recognized environmental conditions (RECs) will be identified. Remediation activities are required to be completed according to the protocols, procedures, standards and documentation requirements of the appropriate supervising entity, such as SCDHS, NYS Department of Labor, Nassau County Fire Marshal and/or NYSDEC.

1.7 Alternatives Considered

As required by SEQRA, this document analyzes alternatives to the Proposed Project, to enable comparisons of impacts from a range of realistic and feasible development options. Three Action Alternatives were identified and are fully examined in Section 14 of this Draft GEIS:

- Alternative 1: No Action - This alternative assumes that the Proposed Action is not undertaken, that the Study Area remains as is with no further development, redevelopment or capital improvements.
- Alternative 2: Development under Existing Zoning – This alternative considers the Build-out analysis for the Study Area provided in the RRAP which identifies reasonably developable areas for development/redevelopment and projects growth based on the land use and dimensional standards for existing zoning, current Town parking requirements, clearing restrictions, and the SCDHS limitations on total sanitary density load per area. This alternative also considers growth trends over the past decade and lot and building vacancies and what these data suggest about potential growth in the area.
- Alternative 3: Sewage Treatment Plant Options – This alternative provides a preliminary assessment of potential locations for an STP to serve the community including consideration of existing plants and locations where new facilities could be constructed.

1.8 Required Reviews, Permits and Approvals

This Draft GEIS has been prepared in accordance with the requirements of SEQRA and its implementing regulations under 6 NYCRR Part 617. This document is intended to provide the Town Board, as Lead Agency, with the information necessary to make an informed decision as to the potential for adverse environmental impacts from the Proposed Action, describes the methods and techniques proposed by the Master Developer and required by the Lead Agency to eliminate or mitigate potential environmental impacts, and provides the bases from which to issue a "Determination of Significance" as required by 6 NYCRR Part 617, SEQRA.

It is expected that after the SEQRA review process for the currently Proposed Action (Overlay zoning and Code amendments) is completed (and assuming Town Board approval of the Proposed Action), detailed parcel-specific plans will be prepared for site-specific development projects and the necessary capital infrastructure to support the developments. These plans will be submitted to the Town Planning Board and any other involved agencies having responsibility over the review, adoption, issuance of permits or other discretionary approvals for the application. It is also expected that the development described in each plan and project will, with possible minor differences to be subject to Town Planning Board review, reflect the concepts assumed, described, and analyzed in this document, so that identified issues and concerns are properly addressed, and the prescribed mitigation strategies are duly applied to future actions. During the review of future site plan applications, the proposed plans will be compared to the SEQRA documents of record; specifically, the impact avoidance and mitigation requirements to be outlined in the final adopted SEQRA Findings Statement, to ensure consistency and compliance with the spirit and intent of SEQRA.

Table 1-5 presents a list of the required reviews, permits and approvals necessary for the Proposed Project.

Table 1-5
REVIEWS, PERMITS AND APPROVALS REQUIRED
Proposed Action and Future Related Projects

Agency/Office/Entity	Review, Permit/Approval Required
Town Board	Amendment of Official Zoning Map and adoption of proposed Zoning Code amendments
	SEQRA process administration (as lead agency)
Town Planning Board	Currently advisory; Future Site Plan reviews
Town Building Department	Future Building Permits
Town Conservation Board	Currently advisory; possible future Town wetlands permits
Town Department of Municipal Works	Currently advisory (solid waste management, drainage, town roads); Future SPDES General Permit and SWPPP
Suffolk County Water Authority	Currently advisory; Future water supply and connection approvals
Suffolk County Planning Commission	General Municipal Law Section 239m referral
Suffolk County Department of Public Works	Future sewer connection approvals and County work permits, possible future SPDES wastewater discharge permits
Suffolk County Department of Health Services	Future water supply and wastewater design approvals, SPDES wastewater discharge permits
Central Pine Barrens Commission	Consistency review and approval
New York State Department of Environmental Conservation	Future SPDES General Permits and SWPPPs and possible future wetlands permits; Wild, Scenic and Recreational Rivers review and possible future permits
New York State Department of Transportation	Roadwork Access Authorizations
New York State Department of State	Funding/Review & Approval

2.0 DESCRIPTION OF PROPOSED ACTION

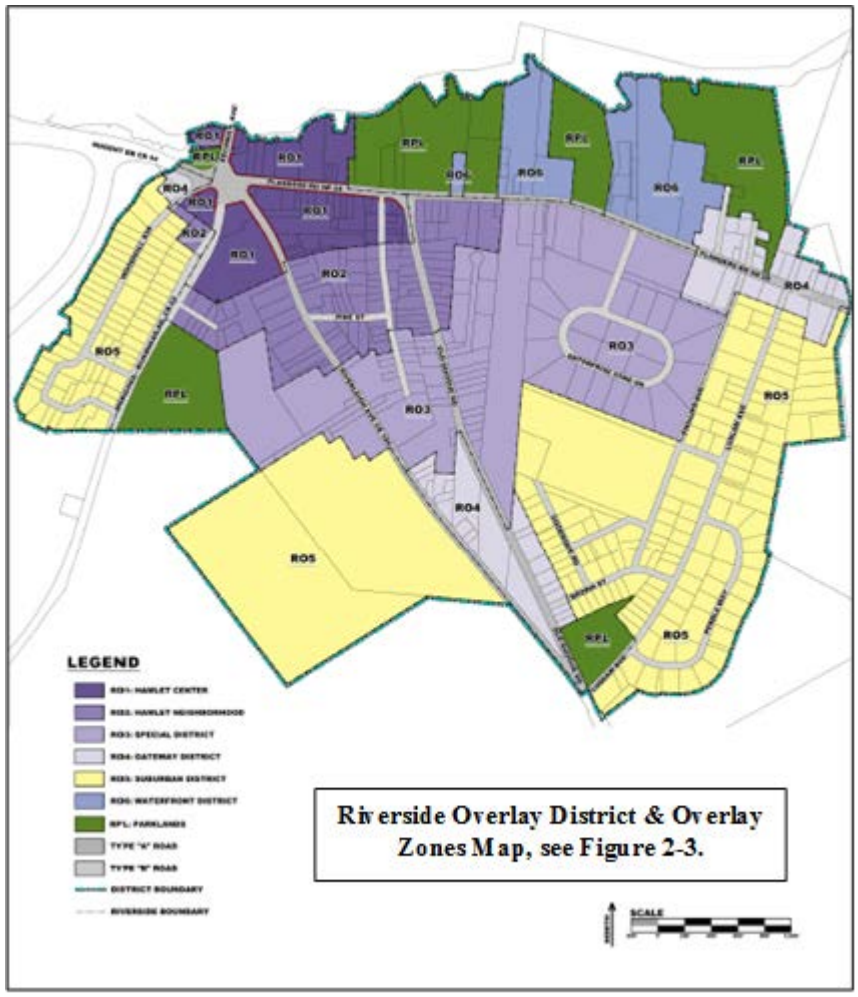
2.1 Introduction

This Draft Generic Environmental Impact Statement (Draft GEIS) has been prepared in accordance with Section 8-0109 of the New York State Environmental Conservation Law (State Environmental Quality Review Act or SEQRA); the implementing standards and procedures of SEQR at 6 NYCRR Part 617; and other applicable regulatory standards and guidelines of environmental review and planning practice. The Town of Southampton (Town) was awarded a grant through the New York State Department of State (NYSDOS) for the preparation of a Brownfield Opportunity Area Step II Nomination Study (BOA or BOA Nomination Study) for the Riverside Revitalization Plan (see **Appendix B**). In conjunction with the BOA Nomination Study and to facilitate implementation of many planning efforts that have been initiated by the Town in the past for the Riverside and nearby Flanders and Northampton communities, the Town entered into a Master Developer Agreement with Renaissance Downtowns (RD), to work with the Town in close partnership to develop plans, test market assumptions, and develop and successfully implement a multi-stage redevelopment program for Riverside. As a result of the long history of study of this area, as well as recent community visioning efforts and planning by the Town of Southampton, the Master Developer and members of the Riverside, Flanders and Northampton community, the recommended master plan and regulatory framework to advance revitalization efforts are detailed in the Riverside Revitalization Action Plan (RRAP, see **Appendix A-1**).

As recommended by the RRAP, amendments to the Town Zoning Code are proposed. The draft Riverside Overlay District Code Amendments (ROD, Overlay Zones or Zoning Amendments) are included in **Appendix A-1.** Together, the BOA, RRAP and the proposed Overlay Zone comprehensively address future development recommendations and strategies for implementation in the Riverside Community. These include the delineation of the geographic areas to contain the Overlay Zones, descriptions of the goals and objectives of each proposed zone, and identification of viable land use and dimensional zoning requirements, street and block specifications, civic space and private open space standards, community layout and design guidelines, and more.

In summary, the Riverside Overlay District proposes seven separate Overlay Zones affecting 468 acres in the Hamlet of Riverside. The proposed area considered under these planning studies and the proposed Overlay Zones is shown in **Figure 2-1**. The highest development density would be permitted in the RO-1 Zone ("Hamlet Center"), which is located around the Riverside traffic circle. Other mixed-use zones, which will allow other mixes of uses, at different densities, and building heights, and which will serve different purposes, include: the RO-2 ("Hamlet Neighborhood"), RO-3 ("Special"), RO-4 ("Gateway"), RO-5 ("Suburban"), RO-6 ("Waterfront"), and RO-7 ("Parkland") Zones. The provisions in the Overlay District regulations would be optional for landowners, who would be permitted to develop and/or redevelop their properties pursuant to the standards and specifications of the existing "underlying" zone if they choose not to develop under the Overlay Zones. The Proposed Action, however, includes incentives for additional density and building height to encourage landowners

to explore redevelopment options under the proposed Overlay Zones which will be more consistent with the past long-term visioning and planning for area revitalization, rather than the underlying zoning which to date has not achieved the Community's goals. The incentives also promote the assembly and consolidation of small or substandard sized lots to form larger development sites that can support greater density and coordinated planned developments. The intent of the Overlay Zones, therefore, is to address the various challenges in the Riverside community identified by past plans and studies and encourage economic land development through the creation of a mixed-use, master planned, form-based Hamlet revitalization district. This is described in greater detail in **Section 2.4** below.



This Draft GEIS has been prepared for the proposed BOA, RRAP and the Town of Southampton Zoning Map and Zoning Code amendments. As set forth in Section 617.10 of the regulations implementing SEQRA, a generic EIS may be broader, and more general than site or project specific EISs. They may include an assessment of specific impacts to the extent that such details are available. A GEIS may discuss in general terms the constraints and consequences of any narrowing of future options. As in this instance, a GEIS may evaluate an entire program or plan having wide application, including new or significant changes to zoning regulations.

The Town Board of the Town of Southampton (Town Board) has primary authority over the adoption of amendments to its official Zoning Map and Zoning Code and will act as "Lead Agency" for the environmental review required by SEQRA in this matter. This Draft GEIS, therefore, seeks to assist the Town Board (and any and all involved agencies) in its investigation potential significant adverse environmental impacts and the identification of necessary impact avoidance and mitigation strategies to prevent or adequately alleviate any significant concerns. The Draft GEIS does this by providing a wealth of graphic, numerical and written information and environmental impact analyses, consistent with the methodologies and standards of

professional planning and environmental practice. The information and analyses contained herein, therefore, provides the bases from which the Town Board, as Lead Agency, can consider the proposed action and render its "Determination of [Environmental] Significance."

After the Town has formally determined that the Draft GEIS is suitable in scope and content and accepts it for public and agency reviews, it must make the document available to the public and involved agencies and decide whether an optional public hearing should be held. After the close of any public hearing or after the public has had the requisite time to consider the Draft GEIS document and provide written comments, a Final GEIS must be prepared to address any and all substantive written and verbal comments received. Once the Generic FEIS is prepared, submitted and accepted by the Town Board, and the public has had the requisite time to consider this document, a SEQRA Findings Statement must be prepared. If positive SEQRA findings are adopted, the Town may proceed to the adoption of the BOA, RRAP and zoning amendments phase.

After the revisions to the Official Zoning Map and Zoning Code are adopted, detailed parcel-specific site plan applications to implement the RRAP in accordance with the zoning amendments may be submitted. The potential impacts of individual site-specific projects that are carried out in conformance with adopted regulations and the thresholds or conditions identified in the generic EIS may require limited additional SEQR review, provided the GEIS and its findings statement sets forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance. This may include thresholds and criteria for supplemental EISs to reflect specific significant impacts, such as site specific impacts, that were not adequately addressed or analyzed in the generic EIS. These site plan applications will be reviewed by the Town Planning Board and will be compared to the standards and policies for future development in the ROD outlined by the SEQRA Findings Statement, Official Town Zoning Map, and Zoning Code. The circumstances under which additional future SEQRA evaluation may be required is set forth in **Section 15.0** of this DGEIS.

2.2 Study Area Location and Description

The 468-acre project Study Area is located in the Hamlet of Riverside, Town of Southampton, Suffolk County, New York. The boundaries of the Study Area are more specifically located:

- North of New York State's 2,700-acre David A. Sarnoff Preserve;
- South of Downtown Riverhead, the Peconic River, and the Southampton/Riverhead municipal boundary;
- East of the Suffolk County office complex (Evan K. Griffing Center), County courthouse (Arthur M. Cromarty Court Complex), County prison facilities (Suffolk County Jail), County Road 51 (Center Drive South), and the Little Peconic River;
- West of White Brook Drive and Black Creek Pond.

Figure 2-1 shows the location and boundaries of the Study Area. **Figure 2-2** is a 2013 aerial photograph showing buildings, development patterns, the local street network and other prominent features.

Riverside is an older, moderately dense suburban community consisting primarily of single-family neighborhoods, three mobile home parks and a scattered mix of mostly small one- to two-story commercial and industrial buildings, several scattered institutional uses (churches, an elementary school, and a head start facility), and parklands and nature preserves. Most of the commercial/business development in the Study Area is located along State Route (SR) 24 or near the Riverside/Riverhead traffic circle where five State and County arterial roads intersect.

The Study Area is also located either partly or entirely within the below listed community service districts or areas, or are served by the community facilities described below.

Community Services Districts

- Riverhead Central School District
- Riverhead Fire District (*administration*)
- Riverhead Fire Department Service Area (*services*)
- Southampton Town Police District Sector A20 (*with headquarters at Jackson Avenue, Hampton Bays*)
- New York State Police Troop L jurisdiction (*with barracks in the Study Area at 234 Riverleigh Avenue in Riverside*)
- Flanders-Northampton Volunteer Ambulance District (*with headquarters at 641 Flanders Road*)
- National Grid Service Area (*natural gas distribution area*)
- Public Service Electric and Gas Company Service Area (PSE&G; *electricity*)
- Suffolk County Bus Routes 90, 92 and 8A
- Suffolk County Water Authority's Riverside Water District (RSWD)
- Suffolk County Water Authority Flanders Distribution Area (Distribution Area 39)
- Town of Southampton solid waste transfer stations (*the closest being 30 Jackson Avenue, Hampton Bays and 66 Old Country Road, Westhampton*).

Planning and Environmental Areas

- Adjacent to the "recreational" section of the Peconic River pursuant to the New York State Wild, Scenic and Recreational Rivers Act and implementing regulations (**Figure 4-1**).
- Town wetlands "critical area" due to the presence of New York State Department of Environmental Conservation (NYSDEC) wetlands (**Figure 4-2**);
- Federal Emergency Management Agency (FEMA) X and X-500 Zones and AE Zone (100-Year Special Flood Hazard Area) (**Figure 4-4**);
- Suffolk County Department of Health Services Groundwater Management Zone III (300 gpd/acre) and Groundwater Management Zone IV (600 gpd/acre) (**Figure 4-7**);
- Town Aquifer Protection Overlay District (APOD) (**Figure 6-1**);
- Town Central Pine Barrens Overlay District (CPBOD) (**Figure 6-2**);

- Central Suffolk Special Groundwater Protection Area (SGPA) (**Figure 6-3**);
- Central Pine Barrens Compatible Growth Area (CGA) (**Figure 6-2**);
- Central Pine Barrens Transfer of Development Rights Receiving Area (**Figure 6-2**); and

The various planning and environmental areas are described in further detail in **Sections 4.0-6.0**.

2.3 Project Background, Public Need, Applicant Objectives and Community Benefits

2.3.1 Project Background and Public Need

The Proposed Action is a development and redevelopment planning initiative designed to assist the Town in achieving numerous long-standing community goals to revitalize the Riverside Hamlet. As described in RRAP (**Appendix A-1**) and **Section 12.0** (Socioeconomics), Riverside is currently the single most economically distressed community on all of Long Island. In comparison with other distressed communities in Suffolk County such as Gordon Heights and Wyandanch, ranked as second and third most distressed respectively, Riverside has significantly higher unemployment (nearly 4% higher than Gordon Heights) and a substantially lower median income (More than $20,000 less than Wyandanch), but receives comparatively less public assistance income. Riverside's median home value is only 19% of that of Suffolk County ($395,200), 12% of the Town of Southampton's ($612,700), 20% of the neighboring Riverhead's ($372,700) and 26% of the next most distressed community.

The currently proposed RRAP and Overlay Zones have been preceded by years of study and extensive community and agency outreach that has recognized a critical need for economic development and the revitalization of the Riverside community with the purpose of creating a vibrant and successful mixed-use hamlet center that enhances community character, protects area environmental resources, and promotes sustainable economic development. The Overlay Zones are intended to provide the flexibility to allow for varying uses, densities, building heights, and design options radiating out from a central core that would eliminate blight and achieve desired redevelopment by encouraging and incentivizing a mix of land uses (e.g., commercial/retail and office uses with upper-level residential uses) on assembled properties or individual parcels. A key goal in the establishment of the proposed Overlay Zones is to provide a distinct walkable hamlet center that will augment the community's sense of place, improve the aesthetic qualities of the built environment, enhance the overall quality of life of its residents, offer incentives for local investment, create new employment opportunities, provide a variety of goods and services to locals and visitors, expand and diversify the local housing stock, and stimulate additional economic activity and fiscal well-being.

2.3.2 Town and Master Developer Objectives

Both the Town and Master Developer seek to create a comprehensive economic development strategy that utilizes the principles of social, economic and environmental responsibility to finally establish the hamlet of Riverside as a center of activity within a mixed-use, transit oriented setting. The primary objectives are summarized below:

- Create an opportunity for a more economically successful and environmentally responsible hamlet center with a more harmonious and pedestrian-oriented public realm than can be achieved under the regulations in the underlying zoning that is currently in effect;
- Expand employment opportunities throughout the hamlet center and surrounding area;
- Encourage green building design, including sustainable technologies such as rooftop gardens and agriculture, appropriate stormwater management including green infrastructure, photovoltaic energy sources and other renewable energy and water and energy conservation technologies;
- Ensure the inclusion of a range of quality public parks and open spaces;
- Promote sustainable and mixed-use development that creates a network of connected streets, parks, walkways and vibrant street-level storefront commerce that will provide for an active environment and a sense of security and safety;
- Transform underutilized and underperforming properties in the ROD to productive uses;
- Reduce automobile dependency by creating a compact, pedestrian oriented, mixed-use environment;
- Provide sufficient building densities and land uses within walking distance from the Hamlet Center;
- Leverage the extraordinary access to existing rail and bus transit by linking land use with alternative transportation opportunities;
- Provide for a diverse mix of residential living choices;
- Create incentives to concentrate development in the downtown core and within ¼ mile of the traffic circle, in walkable distances from the Riverhead train station;
- Promote civic, institutional, commercial, retail, hospitality, entertainment, recreational and residential activity throughout the hamlet core districts;
- Provide public access to the riverfront;
- Encourage participation by private property owners using Riverside Incentive Bonuses (RIBs) within the ROD by:
    - Providing a mechanism for smaller properties, that would otherwise be unable to meet the necessary development thresholds of the proposed zoning, to participate by joining forces through the formation of property owner alliances;
    - Allowing for greater densities and building heights;
    - Expanding the range of uses allowed;
    - Reducing parking requirements;
    - Allowing payments in-lieu of required on-site parking spaces;
    - Providing shared parking opportunities;
    - Allowing payments in-lieu of parks and open space requirements;
    - Providing for shared parks and open space opportunities; and
    - Providing an expedited review and approval process.

2.3.3 Community Benefits

First and foremost, the Proposed Action is intended to address many Town and community goals, needs and desires for revitalization, as expressed in previous planning studies (Town of Southampton 1999 Comprehensive Plan Update (Land Ethics, Inc.); 2004 Flanders/ Riverside/ Northampton Revitalization Study (Ferrandino & Associates, Inc; and Dvirka & Bartilucci, P.C./Greenwood Associates); 2006 Blight Study (Saccardi & Schiff, Inc.); 2008 Riverside Hamlet Plan (Hutton Associates & L.K. McLean Associates, P.C.); 2008 Draft GEIS for the Riverside Hamlet Plan (Cashin Associates, P.C.); 2009 Riverside Urban Renewal Plan (Saccardi & Schiff, Inc.); 2013 Flanders Riverside Corridor Sewer Feasibility Study (CDM Smith, H2M, and Bowne AE&T Group); and a Suffolk County Department of Public Works traffic circle assessment and redesign study). The overall goal of all of these studies has been to revitalize the Study Area with uses that would restore the character and functionality of this commercial corridor, promote economic development, provide housing and employment opportunities, ensure adequate capital infrastructure, in order to create a vibrant, walkable, sustainable, transit-oriented hamlet center. The specific benefits to the Riverside community from the current 2015 RRAP and recommended zone changes and Zoning Code amendments are as follows:

Anticipated Community Benefits

- The fulfillment of long-established Town and community goals developed through extensive community participation, by helping to reestablish an appropriately-scaled, pedestrian-oriented mixed use hamlet center;
- The development and redevelopment of vacant and underutilized properties and providing a set of land uses that are appropriate and compatible with land uses in and around the Study Area;
- The diversification of the community's housing stock by providing both market rate and Community Benefit Units (50 percent of the total units), significantly increasing affordable workforce housing options for persons with diverse housing needs;
- The elimination of blight, cleaning-up of contaminated or brownfield sites, needed infill development, revitalization of the area, and increases in property values;
- The generation of many temporary construction jobs as well as more permanent part-time and full-time employment opportunities at future retail, restaurant, office, personal services, hospitality, industrial, recreational, and cultural facilities and new maintenance positions at multifamily residential buildings;
- The creation of a walkable multimodal (car, bus, train, taxi, bicycle and pedestrian) transit-oriented community and new road improvements that will mitigate traffic impacts to the maximum extent practicable;
- The creation of a new sense of place, with high levels and community interaction through building designs and parcel layouts, an increased level of "eyes on the street" to promote public safety, new pedestrian amenities, attractive architecture and landscaping, and outdoor community spaces, all under a coordinated form-based master plan;
- The construction of new buildings that are more energy efficient and fixtures and plumbing that conserves water for future generations;
- The enhancement of public access to the Peconic River and between the Riverside Hamlet Center and Downtown Riverhead;

- The use and connection to an advanced sewage treatment facility;
- The cleanup of existing environmental conditions during demolition and site preparation for new development;

A detailed analysis of Fiscal and Economic impacts was prepared for the Proposed Project. The analysis indicates that the Proposed Project will result in an increase in property taxes generated by the project parcels, due the increased assessed value of 636,117,077, and the return to the tax rolls of 36 parcels (or blocks) (which had been tax-exempt).

Anticipated Fiscal Impacts/Benefits (see **Section 9.2**):

- The Proposed Project will significantly increase taxes generated by the area, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. At full build-out, the Proposed Project is projected to generate over $12.6 million in annual taxes. This represents a net increase of over $10.3 million per year when compared to existing site conditions.
- Upon full build-out, the Proposed Project will levy over $9.7 million to the Riverhead CSD. This represents 77.4% of the total taxes projected to be generated by the site.
- The Proposed Project will levy over $355,000, or 2.8% of the taxes, to the Riverside & Baiting Hollow Library District.
- Over $550,000, or 4.4% of the total tax revenues are projected to be distributed to Suffolk County, which includes the General Fund, the Police Department and Out of County Tuition.
- Approximately 5.5% of the tax revenue is projected to be levied to the Town of Southampton, which includes the Town/Part Town funds, Highway Tax and the Town-Wide Lighting District. These three line items combine to total over $690,000 in projected tax revenues.
- The Riverhead Fire District is projected to levy $758,000, or 6% of the total tax revenue generated by the Proposed Project.
- The balance of the current property tax revenues are projected to be apportioned to various other local taxing jurisdictions including New York State Real Property Tax Law, New York State MTA Tax, Open Space Bonds, and Northampton Ambulance District.
- The 283 school-aged children are all assumed to be enrolled within public schools in the Riverhead CSD. It is projected that the 283 students will cost the Riverhead CSD approximately $5.2 million in annual expenditures upon full buildout and occupancy of the development.
- It is estimated that the school district will receive over $9.7 million in additional property taxes from the Proposed Project. This could help alleviate an increased burden on other taxpayers throughout the district.

Anticipated Economic Impacts/Benefits: Construction Period (see **Section 12.2**)

- The construction period of 10 years is projected to represent a total of over $636 million in investment. This direct output is projected to generate an indirect impact of over $254 million, and an induced impact of over $242 million, bringing the total economic impact on output to over $1.1 billion during the ten (10)-year construction period of 2016-2025.

- It is projected that the construction period will necessitate 306 full time equivalent (FTE) employees per year, over the course of ten (10) years. Under the Community Benefit Policy, a portion of these jobs go to residents of the town, with priority consideration going to residents of Riverside.

Anticipated Economic Impacts/Benefits: Annual Operations (see **Section 12.2**):

- It is assumed that the Proposed Project will begin the operational phase of development upon the completion of the first year of the ten (10)-year construction period. For the purpose of this analysis, construction will occur at a uniform rate each year until completed in 2025. The stabilized year of operations is assumed to occur in the following year, 2026.
- The Proposed Project is projected to generate over $56.4 million in annual operational revenues, stemming from annual rental income as well as annual sales revenues for each project component.
- The direct operational revenues are projected to generate an indirect impact of over $17 million.
- The induced impact of building operations alone totals $22.6 million. Added to that is the impact of the expenditures of the new residents, which is quantified only in induced impacts. Residential expenditure impacts add another $142.9 million in output. Induced impacts of operations and occupancy total $165.6 million per year. This additional output is generated through round-by-round sales made by households supported by or living in the development at various merchants in other sectors of the regional economy. These include local retailers, service providers, banks, grocers, restaurants, financial institutions, insurance companies, health and legal services providers, and other establishments in the region.
- The sum of the direct, indirect and induced impacts results in a total economic impact on output of over $239.0 million during annual operations once the project reaches full buildout.
- The anticipated Development Scenario is projected to generate 678 jobs each year during annual operations. These 678 direct employment positions are projected to result in an indirect impact of 117 jobs, and an induced impact of almost 1,200 jobs throughout the region, bringing the total economic impact of employment to 1,971 jobs during annual operations.
- The Proposed Project is anticipated to generate 1,971 full-time equivalent (FTE) employees during annual operations. Under the Community Benefit Policy, a portion of these jobs must go to residents of the Town, with priority consideration going to residents of Riverside.
- The 1,971 employees are anticipated to earn a total of approximately $88.9 million in collective labor income. This includes the direct labor income of $26.1 million each year, as well as the income of the indirect and induced employment supported by the operations and occupancy.

2.4 Description of the Proposed Action

The Proposed Action involves the adoption of the BOA Nomination Study, RRAP and the establishment of a new Overlay District consisting of seven separate Overlay Zones affecting 468 acres in the Hamlet of Riverside. The highest development density permitted in the RO-1 Zone ("Hamlet Center") is located around the Riverside traffic circle, and other mixed-use zones with variable uses, densities, functions, and building heights radiate from RO-1, including the RO-2 ("Hamlet Neighborhood"), RO-2 ("Special"), RO-4 ("Gateway"), RO-5 ("Suburban"), RO-6 ("Waterfront"), and RO-7 ("Parkland") Zones. The provisions in the Overlay District regulations would be optional for landowners, who would be permitted to develop and/or redevelop their land under the standards and specifications of the existing zoning if they chose. The Proposed Action, however, includes incentives for increased density and building height to encourage landowners to explore redevelopment options under the proposed Overlay Zones that would be more consistent with the long-term vision and planning for area revitalization, rather than the underlying zoning which to date has not achieved this vision. The intent of the Overlay Zones, therefore, is to address the various challenges in the Riverside community identified by past plans and studies and encourage development through the creation of a mixed-use, master planned, form-based revitalization district.

The proposed Overlay Zones (RO-1, RO-2, RO-3, RO-4, RO-5, RO-6 and RO-7) will encourage a mix of retail stores, restaurants, offices, service-related businesses, hotels, light industries, cultural and recreational facilities, advanced care facilities, and diverse living options, along with improved transportation infrastructure, parking lots/garages/and on-street parking, pedestrian pathways, public green spaces, and access to the Peconic River. The Overlay Zones are intended to provide the flexibility to allow for varying uses, densities, building heights, and design options radiating out from a central core that would achieve coordinated redevelopment by encouraging and incentivizing a mix of land uses (e.g., commercial/retail and office uses with upper-level residential uses) on assembled properties or individual parcels. They would provide a distinct walkable hamlet center that will augment the community's sense of place, improve the aesthetic qualities of the built environment, enhance the overall quality of life of its residents, offer incentives for local investment, create new employment opportunities, provide a variety of goods and services to locals and visitors, expand and diversify the local housing stock, and stimulate additional economic activity and fiscal well-being.

The subject Action, therefore, involves the creation of the new Overlay District and adoption of the corresponding use and dimensional regulations for future land use, development density, and building height as well as the form-based design guidelines for each of the proposed Overlay Zones. When an applicant opts-in to the Overlay Zones by demonstrating compliance with the minimum lot area and minimum lot frontage for each district, applicants will become eligible for participation in the applicable overlay district. Applicants can achieve additional development incentive bonuses, offering greater building height and density, through assembling parcels to establish larger, cohesive development plans. This encourages participation of a greater number of property owners and discourages piecemeal development.

When opting into the Overlay Zones, the applicant must meet a number of requirements which were established in the ROD to ensure that proposed redevelopment meet the vision of social, environmental and economic responsible development. These requirements include:

- Sustainable Development Standards: Applicant opting into the DOZ are required to meet various Sustainable Development Standards which include reductions in water use (both potable and irrigation water), heat island reduction through incorporation of tree canopies and shade, use of green roofs or roofs with high solar reflectance ("cool roofs"), provisions for shared parking and bicycle parking. (See Section 410 of the Zoning Amendments (**Appendix A-1**)).
- Community Benefit Housing: Overlay Zones require that 50 percent of the residential units built are constructed as Community Benefit Units, administered in accordance with Chapter 216 of the Town Code. The workforce housing units may be provided as part of a mixed income project or as stand-alone developments throughout the ROZ. The quality of these developments shall be of the same standards of design, architecture and construction as full market rate units and be designed to be generally indistinguishable from a full market rate development. (See Section 412 of the Zoning Amendments (**Appendix A-1**)).
- Community Benefit Policies: A significant benefit realized under the proposed ROD zoning amendments is the establishment of enforceable Community Benefit Policies. Applicants are also required to comply with Community Benefit Policies, which include provisions for local construction and operation jobs and a local contracting policy to ensure local job creation both during construction and on a permanent basis. (See Section 416 of the Zoning Amendments (**Appendix A-1**)).

The following is an overview of the purposes, goals, and dimensional standards of each of the seven Overlay Zones and how they will shape the future development and redevelopment in the Study Area.

2.4.1 Riverside Overlay Zones: Purpose, Goals, and Dimensional Standards

RO1: Riverside Hamlet Center Overlay Zone:
The intent of this zone, located within ¼-mile of Downtown Riverhead and Riverside traffic circle, is to encourage public activities and the greatest variety and mix of uses, including a range of residential, retail, hospitality, cultural and entertainment uses. The RO-1 zone permits the highest densities and requires compact design with vertically and horizontally integrated residential and non-residential uses. Specific goals for the RO-1 Zone include:

- Creating a walkable mixed-use Hamlet Center with compact development and a vibrant publicly accessible Peconic River Waterfront Promenade;
- Leveraging the area's proximity to natural areas and open spaces to provide a healthy, attractive, and economically viable community;
- Developing lovable spaces with high standards of aesthetic design, walkable streets with active frontages and on-street parking;
- Create greater street enclosure; and

- Leveraging proximity to Riverhead Downtown and Riverhead transit center, and strengthening the connections by creating a pedestrian bridge and boardwalk loop.

Table 2-1
PROPOSED DIMENSIONAL STANDARDS RIVERSIDE OVERLAY DISTRICT
RO-1 "HAMLET CENTER" OVERLAY ZONE

Minimum Site and Building Requirements			
Zoning Standard	***Riverside Overlay District RO-1 Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1***	***Riverside Overlay Development Incentive Bonus 2***
Minimum Frontage	75 feet	150 feet	300 feet
Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
Stories	Minimum 2, Maximum 3	Maximum 3.5	Maximum 4.5
Height	Minimum 30 foot streetwall	---	---

Permitted and Special Exception uses for the RO-1 Overlay Zone are listed in **Table 2-8**.

RO2: Riverside Hamlet Neighborhood Overlay Zone:
The intent of this district, located within ½-mile of Downtown Riverhead and Riverside traffic circle, is to support, similarly to the RO-1 zone, a wide variety and mix of uses, promoting a range of retail choices and commercial uses as well as a variety of residential options. The RO-2 zone also permits the highest densities and promotes compact design with vertically and horizontally integrated residential and non-residential uses. Parking standards and pedestrian amenities required in this district also reflect its immediate access to Hamlet Center and Downtown Riverhead with commuter rail and other transit options. Goals for the RO2 include:

- Provide a range of housing options in walking distance from Hamlet Center;
- Increase permeability of blocks for pedestrian traffic and increased connectivity for car traffic;
- Allow increased density to support commercial vitality and satisfy desire to live in walking distance to Hamlet Center; Regulate frontages to activate streets; and
- Create safer streets by increasing street enclosure, providing on-street parking, visible crosswalks with pulled-in pedestrian refuge islands.

Table 2-2
PROPOSED DIMENSIONAL STANDARDS RIVERSIDE OVERLAY DISTRICT
RO-2 "HAMLET NEIGHBORHOOD" OVERLAY ZONE

Minimum Site and Building Requirements			
Zoning Standard	***Riverside Overlay District RO-2 Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1***	***Riverside Overlay Development Incentive Bonus 2***
Minimum Frontage	75 feet	150 feet	300 feet
Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
Stories	Minimum 2, Maximum 3	Maximum 3.5	Maximum 4

Height	---	---	---

Permitted and Special Exception uses for the RO-2 Overlay Zone are listed in **Table 2-8**.

RO3: Riverside Special District Overlay Zone:
The intent of this zone, located mostly between ½-mile and ¾ mile of Downtown Riverhead and Riverside traffic circle, is to support a variety of uses with employment in focus and high concentration of housing choices. The RO-3 district promotes lower intensity of uses while it continues to promote compact design with vertically and horizontally integrated residential and non-residential uses. Parking standards and pedestrian amenities support proximity Hamlet Center. Goals for the RO3 include:

- Provide diversity of housing options and building typologies;
- Increase permeability of blocks for pedestrian traffic and increased connectivity for car traffic;
- Regulate frontages to activate streets;
- Allow artisan production in mixed use and live-work environments;
- Provide diversity of private and public open spaces;
- Provide access to fresh food, encourage and allow food production.

Table 2-3
PROPOSED DIMENSIONAL STANDARDS RIVERSIDE OVERLAY DISTRICT
RO-3 "SPECIAL" OVERLAY ZONE

Minimum Site and Building Requirements			
Zoning Standard	***Riverside Overlay District RO-3 Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1***	***Riverside Overlay Development Incentive Bonus 2***
Minimum Frontage	75 feet	150 feet	300 feet
Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
Stories	Minimum 2, Maximum 3	Maximum 3.5	Maximum 4
Height	---	---	---

Permitted and Special Exception uses for the RO-3 Overlay Zone are listed in **Table 2-8**.

RO4: Riverside Gateway District Overlay Zone:
The intent of this zone is to create a transition in vehicular approach to Riverside along major routes, with a wider range of uses than the underlying zoning districts permits, and lower densities than the other RO districts. Goals for the RO4 include:

- Create landscaped, architectural or artistic gateway features to announce arrival to Riverside;
- Allow cross-access or new streets; and
- Create safe and walkable connections to natural areas.

Table 2-4
PROPOSED DIMENSIONAL STANDARDS RIVERSIDE OVERLAY DISTRICT
RO-4 "GATEWAY" OVERLAY ZONE

Minimum Site and Building Requirements			
Zoning Standard	***Riverside Overlay District RO-4 Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1***	***Riverside Overlay Development Incentive Bonus 2***
Minimum Frontage	75 feet	150 feet	300 feet
Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
Stories	Minimum 1, Maximum 2	Maximum 2.5 OR maximum 35 feet	Maximum 3.5
Height	---	Maximum 2.5 stories OR Maximum 35 feet	---

Permitted and Special Exception uses for the RO-4 Overlay Zone are listed in **Table 2-8**.

RO5: Riverside Suburban District Overlay Zone:
The intent of this zone is to maintain the suburban character of existing neighborhoods while allowing higher densities than the underlying zoning districts permit. Goals for the RO5 include:

- Create interconnected community to increase walkability;
- Create greenways and pedestrian ways;
- Leverage proximity to educational assets and provide variety of resources;
- Allow granny-flats;
- Minimize potable water use;
- Landscape with native or edible plants;
- Minimize energy use; and
- Downplay and/or screen presence of parking within the private frontage.

Table 2-5
PROPOSED DIMENSIONAL STANDARDS RIVERSIDE OVERLAY DISTRICT
RO-5 "SUBURBAN" OVERLAY ZONE

Minimum Site and Building Requirements			
Zoning Standard	***Riverside Overlay District RO-5 Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1***	***Riverside Overlay Development Incentive Bonus 2***
Minimum Frontage	75 feet	150 feet	No Bonus Available
Minimum Site Area	7,500 SF	15,000 feet	No Bonus Available
Stories	Minimum 1, Maximum 2	Maximum 2.5 OR Maximum 35 feet	No Bonus Available
Height	---	Maximum 2.5 stories OR Maximum 35 feet	No Bonus Available

Permitted and Special Exception uses for the RO-5 Overlay Zone are listed in **Table 2-8**.

RO6: Riverside Waterfront Center Overlay Zone:
The intent of this zone is to accentuate Riverside's maritime character while allowing greater mix of uses and waterfront related businesses than the underlying zoning districts permit. Goals for the RO6 include:

- Leverage maritime resources and proximity to natural areas and Peconic River;
- Create public access to waterfront;
- Connect to boardwalk and trails; Create economic value by leveraging on waterfront assets; and
- Include waterfront and hospitality related uses

Table 2-6
PROPOSED DIMENSIONAL STANDARDS RIVERSIDE OVERLAY DISTRICT
RO-6 "WATERFRONT CENTER" OVERLAY ZONE

Minimum Site and Building Requirements			
Zoning Standard	***Riverside Overlay District RO-6 Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1***	***Riverside Overlay Development Incentive Bonus 2***
Minimum Frontage	75 feet	150 feet	300 feet
Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
Stories	Minimum 1, Maximum 2	Maximum 2.5 OR Maximum 35 feet	Maximum 3.5
Height	---	Maximum 2.5 stories OR Maximum 35 feet	---

Permitted and Special Exception uses for the RO-6 Overlay Zone are listed in **Table 2-8**.

RO7: RPL Riverside Parkland Overlay Zone:
The intent of this zone is to remain as natural open space or parklands. Development would not occur in this zone. Goals for the RO7 include:

- Leverage maritime resources and proximity to natural areas and Peconic River;
- Create a Greenways Plan that connects all waterfront with pedestrian ways, greenways, parks and open spaces;
- Create waterfront promenade and boardwalk;
- Create pedestrian trails and greenways; and
- Provide parking for large parkland areas and share with adjacent Hamlet uses to minimize cost for maintenance and security, and help increase the use of parks.

Table 2-7
PROPOSED DIMENSIONAL STANDARDS RIVERSIDE OVERLAY DISTRICT
RO-7 "PARKLAND" OVERLAY ZONE

Minimum Site and Building Requirements			
Zoning Standard	***Riverside Overlay District RO-seven Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1***	***Riverside Overlay Development Incentive Bonus 2***
Minimum Frontage	No Development	No Bonus Available	No Bonus Available
Minimum Site Area	No Development	No Bonus Available	No Bonus Available
Stories	No Development	No Bonus Available	No Bonus Available
Height	No Development	No Bonus Available	No Bonus Available

2.4.2 Riverside Development Incentive Bonuses

The Riverside Incentive Bonuses (RIB) program for private property owners mentioned in the above tables offers bonuses in the form of additional development density and building height,

thereby providing a mechanism for owners of small properties who are otherwise unable to meet the required development thresholds and participate in the area redevelopment and revitalization by joining forces through the formation of property owner alliances. The RIB also allows for an expansion of the range of uses permitted, parking requirement waivers, payments in-lieu of required on-site parking, shared parking arrangements, payments in-lieu of parks and open space, the sharing of parks and open spaces, and expedited reviews and approvals.

Two types of Riverside Incentive Bonus are available to applicants, RIB-1 and RIB-2. The RIB-2 bonus provides a higher level of yield than the RIB-1 bonus but contains more restrictive requirements. In order to achieve an RIB, a landowner must control the minimum lot size, additional site frontage, and meet Sustainable Development Standards.

2.4.3 Permissible Land Uses

Table 2-8 lists the uses that are Permitted as-of-right or through Special Exception in the RO-1, RO-2, RO-3, RO-4, RO-5 and RO-6 Zones.

Table 2-8
PROPOSED SCHEDULE OF USES FOR RIVERSIDE OVERLAY DISTRICT BY OVERLAY ZONE

Use	RO-1	RO-2	RO-3	RO-4	RO-5	RO-6
Mixed-Use						
Mixed-Use Building	P	P	P	P	X	P
Live-Work Building	P	P	P	X	X	X
Retail						
Retail	P	P	P	X	X	SE
Restaurant	P	P	P	X	X	SE
Office						
Office	P	P	P	P	X	X
Medical Office	P	P	P	P	X	X
Professional Service	P	P	P	P	X	X
Business Incubators	P	P	P	X	X	X
Residential[1]						
Home Occupation/Home Professional Office	P	P	P	P	P	P
Two-family Residence	P	P	P	P	P	P
Multiple Dwelling	P	P	P	P	X	P
Multifamily Residence	P	P	P	P	X	X
Cultural						
Theater	P	P	P	X	X	X
Museum	P	P	P	X	X	SE
Hospitality						
Hotel	P	P	P	X	X	P
Bed and Breakfast	P	P	P	P	P	P
Residential Care Facility	P	P	P	P	X	P
Recreation/Education						

Use	RO-1	RO-2	RO-3	RO-4	RO-5	RO-6
Recreational Business	P	P	P	P	X	P
Educational Use	P	P	P	P	P	P
Religious/Civic						
Houses of Worship	P	P	P	P	X	P
Library	P	P	P	P	X	X
Special Waterfront						
Marina	P	X	X	X	X	P
Light Industry						
Artisan Production Facilities	P	P	P	P	X	P
Research & Development Facility	P	P	P	P	X	X
Data Information Center	P	P	P	P	X	X
Document/Misc. Storage	P	P	P	P	X	X
Renewable Energy Facilities	P	P	P	P	X	P
Agricultural Use	P	P	P	P	P	P
Animal Husbandry	X	X	P	P	X	P
Parking Facilities						
Parking Structure	P	P	P	P	X	P
Parking Lot	P	P	P	P	X	P
Adult Entertainment[2]						
Adult Entertainment Use	X	X	X	X	X	X
Utilities						
Utilities	P	P	P	P	P	P

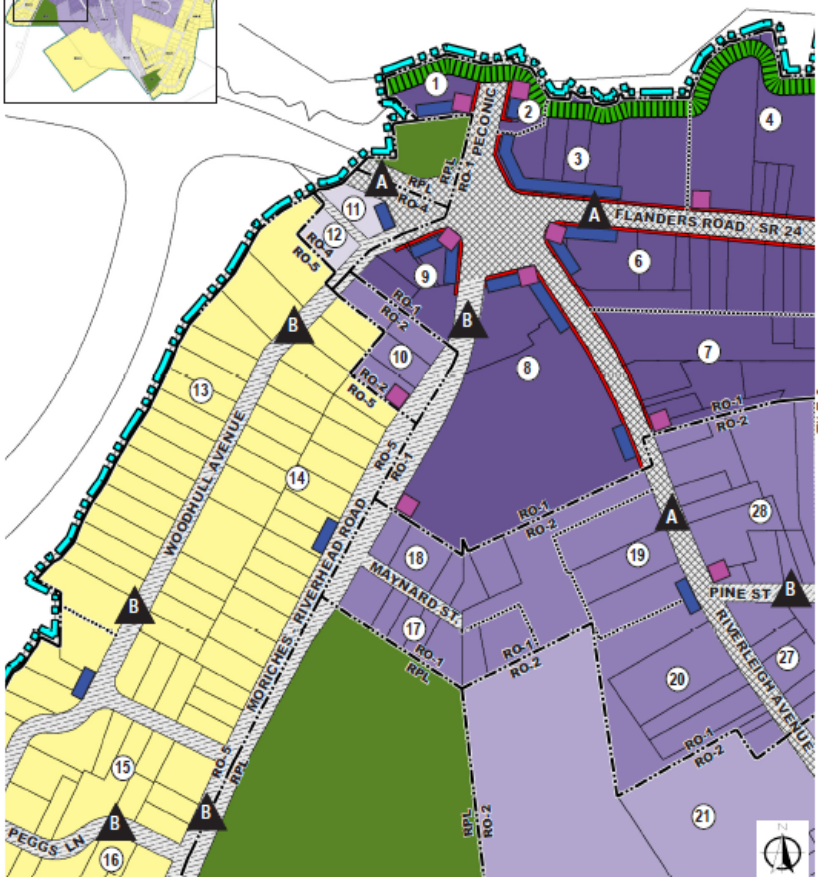
Notes: P = Permitted; SE = Allowed by Special Exception for waterfront related or enhancing use; X = Prohibited
1=Residential use and private dwelling units are prohibited within the Private Frontage area on the first floor of Store frontages
2=As defined in §330-162.17 of the Town of Southampton Zoning Ordinance

2.4.4 Design, Building Form, and Public Space Standards

In addition to the above described land use, dimensional, and incentive bonus standards, the proposed zoning amendments also contain a variety of form-based design standards. The form-based design standards consist of "Building Form Standards" and "Public Space Standards" that correspond to a Zoning Standards Map, which graphically depicts each of the Overlay Zone boundaries, parcel lot lines, block lines, block numbers, street types, and applicable zoning standards for development design which are keyed to various explanatory diagrams and text in the proposed law (see **Appendix A-1**). The Zoning Standards Map highlights where special architectural treatments for significant corners and terminating vistas are required, as well as provides requirements for building setbacks, public frontages, required store fronts, street types, and pedestrian enhancements.

Building Form Standards regulate how far buildings are from sidewalks, the minimum window area or glazing a building must have, how tall the building is in proportion to the width of the street, how accessible and welcoming front entrances will be, where a building's parking will be, etc. The proposed form-based code includes definitions and standards designed to promote and require the placement of buildings along streets, facing sidewalks and within a prescribed Build-To-Zone that is typically five to 10 feet in width. It also defines the Private Frontage for all buildings facing major streets. Specifically, major design objectives include:

Zoning Standards Map, Tile 4 (See Appendix A-1)



- Require buildings to occupy 60 to 80 percent of the street and sidewalk frontage
- Require Terminating Vistas and Significant Corners, such that distinctive architectural features are required in certain locations pursuant to the Zoning Standards Map
- Civic Space Design Standards

The form of buildings and their interaction with the pedestrian environment is at the core of form based zoning. The frontage, or that portion of the building that occupies the development space fronting on the public realm, i.e., sidewalks, are regulated in the zoning. Conditions such as the percentage of the building which must occupy the space along the public realm, the amount of glazing the building should have and the requirements to have active doorways and storefronts are also provided (see **Appendix A-1**).

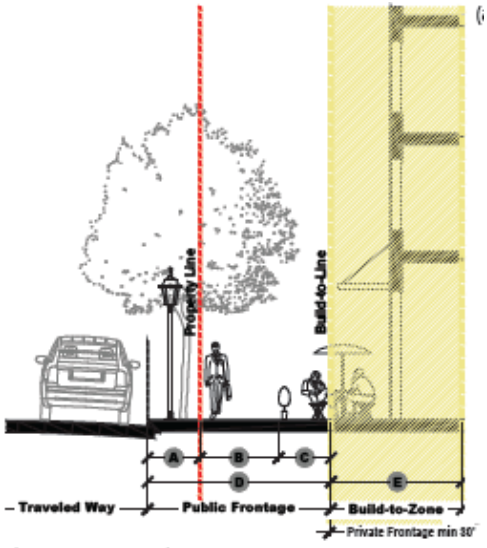
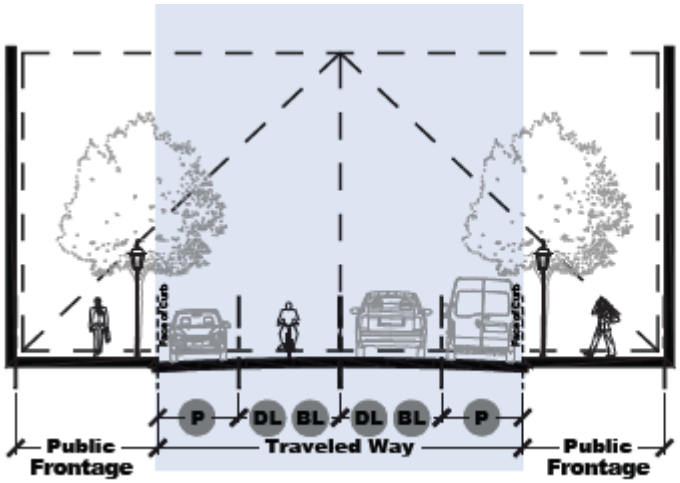


Figure 410-2: Frontage Diagram

The Overlay Zones provide for Street and Traveled Way requirements, specifying street dimensions, on-street

parking provisions, and pedestrian/public frontage requirements. Public Space Standards regulate the form and pattern of streets and squares to provide guidelines that create comfortable and useful spaces for a variety of activities, including walking, bicycling, driving, shopping, access to public transit, and social interaction. These standards help to ensure that public space works for everyone, not just for the movement and storage of vehicles.



Street Sections Legend

ID	Width (FT)	Description
CL	10'	Center Turn Lane
DL	11'	Drive Lane
P	8'	Parallel Parking
AP	18'	Angled Parking
PP	18'	Perpendicular Parking
EA	12'	Emergency Aisle
BL	5'	Bicycle Lane
SL	14'-18'	Shared Lane
W	5' - 8'	Walkway
PR	5' - 8'	Promenade
WL	N/A	Wetlands
M	5' - 8'	Landscape Median
SH	5' - 8'	Shoulder (Paved)
LS	6' - 12'	Landscaped Shoulder

A key finding of the public outreach efforts documented in the RRAP is the desire for increased accessibility to the Peconic River waterfront. Increasing opportunities for public access and visibility of the waterfront would significantly change the character of the waterfront, which is largely hidden from view in Riverside under current conditions. Construction of a promenade and/or viewing platforms at certain locations along the Peconic River to enhance physical and visual access to these natural aesthetic resources is therefore envisioned. The Zoning Amendments anticipate the construction of a waterfront trail or boardwalk which would be visually consistent with what already exists in Riverhead. Such a boardwalk/potential trail with viewing platforms along the river would also provide public access and visibility to natural resources, as well as public viewing locations for WaterFire™ events. WaterFire™ is a public art installation and community arts event that began in downtown Providence, Rhode Island, and has been expanded to several cities throughout the country and world (see RRAP, **Appendix A-1**). Joint efforts by the Towns of Riverhead and Southampton to bring WaterFire™ to the Peconic River are currently being pursued as part of revitalization efforts.

Example images of a river boardwalk and WaterFire™ event (RRAP, Appendix 3)

2.5. Theoretical Development Scenario

The Proposed Action involves the adoption of the BOA, RRAP and Zoning Code/Zoning Map Amendments to create the Overlay Zones necessary to implement the redevelopment sought in the RRAP. At present, there are no specific development proposals. Thus, this DGEIS considers the potential for redevelopment and the associated environmental implications, in order to identify and mitigate any adverse environmental impacts at the earliest planning stages of a project. This DGEIS includes an assessment of a Theoretical Development Scenario, which relates to the anticipated development that could occur within a period of ten years within the Study Area. As the proposed code amendments are optional, any property owner within the Overlay Zones has the option to pursue redevelopment if desired. Therefore, the exact property owners that may choose to implement redevelopment under the Overlay Zones is unknown. However, to ensure that the review of the Proposed Action and its anticipated impacts is not segmented, a theoretical scenario of additional development that could be reasonably expected in the Study Area if the proposed zoning amendments are put into place is evaluated. This provides the ability to establish guidelines as to what level of further SEQRA review is appropriate, based on conditions and thresholds to be established in the Statement of Findings. It should be noted that some of this potential development would replace existing development and therefore is not fully additive to the existing development stock.

Table 2-9
REASONABLY EXPECTED NEW DEVELOPMENT
RIVERSIDE OVERLAY ZONES
(Zones RO-1 through RO-6)

Land Use	Additional Square Feet, Rooms, and Dwelling Units
Retail	133,517 Square Feet
Professional Office	37,000 Square Feet
Medical Office	25,000 Square Feet
Hotel	97 Hotel Rooms
Residential Units	2,267 Dwelling Units
Adult Care/Nursing Home	63,910 Square Feet
Artisan Lofts/Production	30,900 Square Feet
Cultural	11,032 Square Feet
Indoor Ice Skating/Hockey Rink	100,000 SF, plus parking
Parking Garage	550 Spaces
Surface Parking Lots	1,602 Spaces
On-Street Parking Spaces	1,107 Spaces

Appendix A-2 provides a detailed summary of the Theoretical Development Scenario, including estimated development square footages and uses on various Blocks identified throughout the Study Area. An illustration of the estimated development analyzed under the Theoretical Development Scenario is shown in **Figure 2-4**. While this specific development is not proposed at this time, it represents a potential buildout of various parcels, both Town owned and privately owned.

In regard to the residential dwelling units outline in **Table 2-9**, excluding assisted living units, the Zoning Amendments require that 50 percent of the residential units be reserved as Community Benefit Units in perpetuity and administered pursuant to Chapter 216 of the Town Code. For analysis purposes, the Theoretical Development Scenario evaluates ten percent of the residential units (226 units) as studio apartments, 50 percent of the residential units (1,134) as one bedroom units, and 40 percent of the units (907) as two bedroom units, including 157 two bedroom townhomes. Ten percent of the units are evaluated as age restricted, 70 percent of the units are evaluated as renter-occupied, and 30 percent are evaluated as owner-occupied units.

Table 2-10
SITE & DEVELOPMENT CHARACTERISTICS & IMPACTS
Theoretical Development Scenario

Parameter	Theoretical Development Scenario
Coverages	**Acres**
Impervious	164.53±
Landscaped	164.01±
Unvegetated/bare ground	9.97±
Wooded	109.45±
Wetlands	19.60±
Total Study Area	**467.56**±
Water Resources:	
Domestic Use (gpd) [1]	538,065±
Irrigation Demand (gpd) [2]	29,282±
Total Water Use (gpd)	567,347±
Trip Generation (vph)**:** [3]	
Weekday AM Peak Hour	1,610±
Weekday PM Peak Hour	2,299±
Saturday Midday Peak Hour	2,209±
Miscellaneous:	
Parking Provided (spaces)	3,259±
Residents [4]	3,899±
School-Age Children (5-17 years) [5]	283
Total Taxes Generated ($/year) [4]	12,599,629
School Taxes ($/year) [4]	$9,753,728
Employees (FTE) [4]	678
Solid Waste Generation (lbs/day) [5]	7.06 tons/day

1 Assuming SCDHS design flow rates for wastewater systems: 100 gpd/room for hotel, 0.10 gpd/SF for medical office, 0.03 gpd/SF for retail or dry commercial space, 30 gpd/seat for restaurant, 150 gpd/unit for apartments, 0.04 gpd/SF for artist production space, and 0.06 gpd/SF for office space.
2 Assuming 15% of landscaped area is fertilizer dependent and irrigated. 16 inches of irrigation/season, annualized.
3 See Traffic Impact Study, **Appendix K**.
4 Assuming 1.64 residents/multifamily residential unit, 2.30 residents/two-bedroom townhome, 0.4 residents/age restricted unit, see **Section 9.2**.
5 Assuming 0.10 school-age children/studio or one bedroom apartment, 0.16 school-age children/two-bedroom apartment, 0.51 school-age children/two-bedroom townhome, see **Section 9.2**.

5 See **Section 12.2** and **Appendix L**.

7 Assuming 0.13 lbs/day/SF of retail space, 0.09 lbs/day/SF for restaurant space, 0.01 lbs/day/SF for office space, 0.01 lbs/day/SF for medical office space, 1.5 lbs/room/day for hotel rooms, 0.09 lbs/day/SF for catering/conference space, 4 lbs/day/resident for apartments, 0.012 lbs/day/SF for industrial space, and 0.0012 lbs/day/Sf for artists production space (Salvato, 2009).

As explained in further detail in **Section 15.0**, future site-specific development applications will undergo SEQRA evaluation to determine the appropriate level of environmental review in conformance with 6 NYCRR Part 617.10(d). If potential significant adverse environmental impacts are identified that were not previously or adequately analyzed as part of this SEQRA review, additional site-specific review including technical studies and/or a Supplemental GEIS may be required. The information submitted with the application for each such future project will be used by the entity having jurisdiction as the basis for this determination.

While there are currently no specific development proposals, this DGEIS considers the potential for redevelopment in accordance with the Proposed Action, in order to address potential adverse environmental impacts at the earliest planning stages of this effort. The presumed uses and yields are necessary to establish the potential impacts of the Proposed Action as required by SEQRA. Ultimately, it is anticipated that the uses and nonresidential intensity/residential density of development that will be proposed on specific sites in the Study Area will be determined by a combination of factors, such as market conditions, property owner preferences and objectives, and economic factors. This change in land use character will be directed by the zoning amendments outlined throughout this document. These are considered to be generally beneficial and consistent with that which was envisioned in the various planning documents promulgated by the Town.

2.6 Required Reviews, Permits and Approvals

This Draft GEIS has been prepared in accordance with the requirements of SEQRA and its implementing regulations under 6 NYCRR Part 617. This document is intended to provide the Town Board, as Lead Agency, with the information necessary to make an informed decision as to the potential for adverse environmental impacts from the Proposed Action, describes the methods and techniques proposed by the Master Developer and required by the Lead Agency to eliminate or mitigate potential environmental impacts, and provides the bases from which to issue a "Determination of Significance" as required by 6 NYCRR Part 617, SEQRA.

It is expected that after the SEQRA review process for the currently Proposed Action (Overlay zoning and Code amendments) is completed (and assuming Town Board approval of the Proposed Action), detailed parcel-specific plans will be prepared for site-specific development projects and the necessary capital infrastructure to support the developments. These plans will be submitted to the Town Planning Board and any other involved agencies having responsibility over the review, adoption, issuance of permits or other discretionary approvals for the application. It is also expected that the development described in each plan and project will, with possible minor differences to be subject to Town Planning Board review, reflect the concepts assumed, described, and analyzed in this document, so that identified issues and concerns are

properly addressed, and the prescribed mitigation strategies are duly applied to future actions. During the review of future site plan applications, the proposed plans will be compared to the SEQRA documents of record; specifically, the impact avoidance and mitigation requirements to be outlined in the final adopted SEQRA Findings Statement, to ensure consistency and compliance with eh spirit and intent of SEQRA.

Table 2-11 presents a list of the required reviews, permits and approvals necessary for the Proposed Project.

Table 2-11
REVIEWS, PERMITS AND APPROVALS REQUIRED
Proposed Action and Future Related Projects

Agency/Office/Entity	Review, Permit/Approval Required
Town Board	Amendment of Official Zoning Map and adoption of proposed Zoning Code amendments
	SEQRA process administration (as lead agency)
Town Planning Board	Currently advisory; Future Site Plan reviews
Town Architectural Review Board	Currently advisory; possible future referral for architectural review of site plans
Town Building Department	Future Building Permits
Town Conservation Board	Currently advisory; possible future Town wetlands permits
Town Department of Municipal Works	Currently advisory (solid waste management, drainage, town roads); Future SPDES General Permit and SWPPP
Suffolk County Water Authority	Currently advisory; Future water supply and connection approvals
Suffolk County Planning Commission	General Municipal Law Section 239m referral
Suffolk County Department of Public Works	Future sewer connection approvals and County work permits, future SPDES wastewater discharge permits
Suffolk County Department of Health Services	Future water supply and wastewater design approvals, SPDES wastewater discharge permits
Central Pine Barrens Commission	Consistency review and approval
New York State Department of Environmental Conservation	Future SPDES General Permits and SWPPPs and possible future wetlands permits; Wild, Scenic and Recreational Rivers review and possible future permits
New York State Department of Transportation	Roadwork Access Authorizations
New York State Department of State	Funding/Review & Approval

3.0 GEOLOGY, SOILS AND TOPOGRAPHY

3.1 Existing Conditions

3.1.1 Geology

Long Island is located within the Atlantic Coastal Plain physiographic province of eastern North America. The Atlantic Coastal Plain extends from Cape Cod to Florida and includes coastal barriers, inlets, embayments, drowned river valleys, and extensive wetlands and marshes formed by coastal and riverine processes. On Long Island, these coastal and riverine processes have eroded, weathered, reworked and redeposited Wisconsin-stage[1] glacial deposits which comprise the surficial geology and geomorphology of the area. Within the community of Riverside, these materials consist of glacial outwash[2] that were deposited by sediment laden meltwater from retreating glaciers between the Harbor Hill Moraine to the north and Ronkonkoma Moraine to the south. Physical, chemical and biological processes at and near the surface further modified the deposits to create the area's current soil conditions.

The generally coarse-grained well-drained sand and gravel that were deposited by past glaciations have contributed to the formation of the Central Pine Barrens which is characterized by assemblages of relatively drought tolerant vegetation that is capable of thriving in comparatively unfertile and well- to excessively-well drained soils. These deep, primarily unconsolidated, moderate and coarse-grained materials also provide significant groundwater storage to accommodate abundant volumes of potable drinking water that is readily extractable and serve as the potable drinking water supply for eastern and central Long Island.

The Riverside community is located along the shore of the Peconic Estuary at the westerly split between the North and South Forks and occupies the south bank of the tidal portion of the Peconic River. As a result of the community's presence along the Peconic River and drainage system, it is characterized by tidal and freshwater wetlands, a few small isolated groundwater-fed ponds, small freshwater tributary streams, floodplains, wetland soils and dredge spoil fill deposits. The terrain within the Study Area is generally flat-to-gently sloping and this limited relief and generally subdued topography is related in part to the above described geology and natural processes, as well as past human activities including filling and grading to provide suitable conditions for development.

Krulikas (1986) discusses the geologic profile beneath the Central Pine Barrens. The profile includes metamorphic basement rock and several distinct geologic formations that have been deposited over metamorphosed bedrock, far beneath the surface. The sequence of geologic formations is described below in descending order from the surface:

[1] The Wisconsin-stage is the fourth and last glacial stage of the Pleistocene Epoch.
[2] Outwash typically refers to unconsolidated sand and gravel deposited (and often stratified) by meltwater streams flowing in front of the end moraine or the margin of an active glacier. An outwash plain is landform that consists of a broad gently-sloping sheet of outwash.

Pleistocene Deposits

The surficial geology in the area of the subject action consists of unconsolidated Pleistocene-aged glacial, periglacial, and interglacial deposits which comprise Long Island's Upper Glacial Aquifer system. The deposits are composed primarily of sand and gravel which exhibit high hydraulic conductivity (i.e., relatively rapid percolation and groundwater flow), as well as substantial water storage and water bearing characteristics making the water easily accessible and easily withdrawn. The Upper Glacial aquifer is a major source of groundwater on Long Island and is part of the Island's "sole source aquifer." Groundwater in the Upper Glacial Aquifer is, however, "younger" and less protected from past, present, and future anthropogenic activities (i.e., sources of human induced contamination) on or near the ground surface than the deeper/underlying Magothy Aquifer which is discussed later. The surface expression or geomorphology of the Pleistocene deposits was formed by glacial activities which include the creation of the Harbor Hill Moraine and Ronkonkoma Terminal Moraines, as well as extensive areas of containing glacial outwash plains that blanket the subject Study Area and the Peconic Estuary basin.

Matawan Group and Magothy Formation (undifferentiated)

The contact between the Upper Glacial/Pleistocene deposits and the underlying Matawan Group/Magothy Formation is estimated to be roughly 140-190 feet beneath the Study Area (Krulikas, 1986). The Matawan Group and Magothy Formation undifferentiated are generally composed of fine to course sand that exhibit intermediate permeability and hydraulic conductivities.[3] The formation is also a significant source of stored groundwater (i.e., Magothy Aquifer). With a depth or surface altitude of approximately -140 feet below mean sea level (msl), the aquifer is more protected than the Upper Glacial Aquifer from potential contaminants that originate at or near the land surface. The Group and Formation have a combined thickness of approximately 100 feet along the north shore and 900 feet near the south shore (Krulikas, 1986) but has been estimated to be roughly 700 feet thick beneath the study area thus extending to depths of between approximately 140 feet and 890 feet (Soren and Simmons, 1985). The Matawan Group and Magothy Formation also contain layers of silt and clay and some clay lenses which may locally restrict groundwater conductivity, yield, and storage capacity.

Raritan Formation

The Raritan Formation consists of two separate and distinct geologic units including the upper clay member (Raritan Clay) and lower Lloyd Sand Member. The Raritan Clay member is approximately 160 feet thick beneath the Study Area and is composed primarily of clay with some silt and fine sand (Krulikas, 1986 and Soren and Simmons, 1985). The clay has a low enough hydraulic conductivity for it to be considered a water confining unit. The Lloyd Sand/Aquifer underlies the clay member and overlies the basement rock making the Lloyd a confined aquifer. It is approximately 325 feet thick near the Study Area. The Lloyd Sand Member (Lloyd Aquifer) is a major source of water in Queens and Nassau Counties (Doriski,

[3] Hydraulic conductivity is the rate of flow under a unit hydraulic gradient through a unit cross-sectional area of an aquifer.

1983); however, beneath certain areas of eastern Long Island the aquifer is very deep and may be compromised by salt water intrusion. Because the Lloyd Aquifer is so deep, is or may be prone to saltwater intrusion, and since there is a significant quantity of potable water in the Upper Glacial and Magothy aquifers, installing a well and withdrawing water from any fresh portions of the Lloyd is generally not economically practical or recommended.

Bedrock

Precambrian-aged bedrock or the underlying basement complex lies far below the Study Area. The depth to bedrock ranges from roughly 900 feet below msl along the north shore of Suffolk County to approximately 1,500 feet below msl along the south shore of Suffolk County. The bedrock beneath the subject site exists at approximately -1,360 feet below msl (Soren and Simmons, 1985). The metamorphosed basement rock consists of gneiss and schist. The surface of the bedrock is weathered indicating a period of erosion with the Raritan Formation lying unconformably over the bedrock.

3.1.2 Soils

Soils in the Study Area consist of a mix of native upland soils, urban fill, dredge spoil (along the river in the northeast corner of the Study Area), and wetlands and floodplain deposits. The most common soil types in the area, from a land area perspective, are "Cut and fill land, gently sloping" (CuB) and "Urban land" (Ur). These soil types are commonly associated with past soil disturbance and development activities involving the placement of fill, the mixing of native and non-native soils, and site grading for development and drainage. The characteristics of these soils are generally variable depending on their source and are therefore undefined by the Soil Survey.

Native soils in the area are identified by the Suffolk County Soil Survey as components of the "Plymouth-Carver Association" and consist of are deep, coarse textured sand and gravel, and are excessively drained. While the Plymouth-Carver Association tends to be associated with glacial moraines, it is clear based on area terrain and a more geographically focused analysis of individual soil types by the Soil Survey, that the soils in the Study Area are actually glacial outwash deposits near the side slopes of glacial moraines that lead to the Peconic Estuary basin. Native upland soils within the Study Area are identified as "Carver and Plymouth sands, 0 to 3 percent slopes" (CpA), "Plymouth loamy sand, 0 to 3 percent slopes" (PlA), "Plymouth loamy sand, 8 to 15 percent slopes" (PlB), and "Deerfield sand" (De). The specific characteristics of these soils are discussed later.

Also found within the Study Area are several hydric soils, including Wareham loamy sand (We), Atsion sand (At), Tidal marsh (Tm), and Berryland mucky sand (Bd). These soil types exist primarily on the north side of SR 24 and are associated with the Peconic River, its floodplain, and its fresh and tidal wetlands and marshes; however, a few small areas containing hydric soils do exist south of SR 24. These include a narrow floodplain or freshwater wetland paralleling the

Little Peconic River tributary, and a few very small and isolated ponds, wetlands, and/or shallow poorly drained topographic depressions.

The last grouping of soils identified in the area is "Filled land dredged material" (Fd) (in this case, dredge spoil deposits from the river) which is found in the northeast corner of the study area along the south bank of the Peconic River.

Figure 3-1 shows the locations, distribution, and areal extent of the soils in the Study Area. **Table 3-1** lists the types of soils in the Study Area by acreage and percentage of Study Area.

Table 3-1
SOIL TYPE BY ACREAGE AND PERCENT OF STUDY AREA

Symbol	Soil type	Area (acres)	%
At	Atsion sand	11.31	2.4
Bd	Berryland mucky sand	6.10	1.3
CpA	Carver and Plymouth sands, 0 to 3 percent slopes	99.96	21.4
CpC	Carver and Plymouth sand, 3 to 15 percent slopes	17.90	3.8
CuB	Cut and fill land, gently sloping	211.30	45.2
De	Deerfield sand	22.86	4.9
Fd	Fill land, dredged material	21.07	4.5
PlA	Plymouth loamy sand, 0 to 3 percent slopes	35.77	7.6
PlB	Plymouth loamy sand, 3 to 8 percent slopes	4.60	1.0
Tm	Tidal marsh	7.15	1.5
Ur	Urban land	21.71	4.6
W	Water	7.84	1.7
	TOTAL	**467.56**	**100.0**

Source: Warner, et al., 1975

Specific soil types that have been mapped by the Suffolk County Soil Survey within the Study Area and described are as follows:

Urban Soils

Cut and fill land, gently sloping (CuB): This series is comprised of areas that have been cut and filled for nonfarm uses (in this case streets and land development). These areas are generally large, but some areas may be about five (5) acres in size. This soil type is comprised of moderately sloping areas that have been graded for building sites and slopes tend to range from 1 to 8 percent. These soils tend to have only slight limitations when it comes to their use as sewage disposal fields, house lots, and streets and parking lots and have few, if any, limitations for building construction. The sandy surface layer of this soil, however, restricts the ability to establish lawns and landscaping when the vegetation is not adapted to dry well drained soil conditions.

Urban land (Ur): This soil type consists of areas that are more than 80 percent covered by buildings and pavement. Examples include business districts in larger villages, parking lots, and densely-developed industrial parks. Examination and characterization of soils and identification of potential development constraints in these areas must be performed on-site through soil sampling.

Native Soils

Plymouth loamy sand, 0 to 3 percent slopes (PlA): This soil type consists of deep, excessively drained, coarse-textured soils that form a mantle of loamy sand or sand over thick layers of stratified coarse sand and gravel. The areas are generally level, but undulate in some areas. PlA soils present only slight limitations in terms of sewage disposal fields due primarily to high permeability and slight constraints to home construction and streets and parking lots. The hazard of erosion is slight; however, there are severe constraints to the establishment of lawns and landscaping due to a sandy surface layer.

Plymouth loamy sand, 3-8 percent slopes (PlB): Consists of deep, excessively drained, coarse-textured soils formed in a mantle of loamy sand over thick layers of stratified coarse sand and gravel. This soil is found on both moraines and outwash plains. PlB presents only slight limitations in terms of sewage disposal fields due primarily to high soil permeability, slight constraints to home construction, and moderate limitations to streets and parking areas. The erosion hazard is slight and soil tends to be droughty and therefore can affect the establishment and survival of lawns and landscaping due to a sandy surface layer.

Carver and Plymouth sands, 0 to 3 percent slopes (CpA): The Carver series consists of deep, excessively drained coarse-textured soils. This soil type is found mainly on outwash plains; however, they are also found on some flatter hilltops and intervening draws on moraines. The hazard for erosion is slight.

Carver and Plymouth sands are identified as the primary native soil type in the Study Area based on total area covered. Portions of the Study Area that contain these soils include most of the areas that currently support undisturbed/undeveloped native pine barrens. Carver and Plymouth sands, 0 to 3 percent slopes are described by the Suffolk Soil Survey as forming on outwash plains. The soil profile of this soil typically consists of fine-to-course sand to a depth of approximately 2 feet and course sand to gravelly sand in the substratum to a depth of about 5 feet. The soils tend to have only slight limitations when it comes to their use for sewage disposal fields, house lots, streets and parking lots. The sandy surface layer, however, often limits the establishment of lawns or landscaping that is not specifically adapted to dry (xeric) conditions.

Deerfield Sands (De): The Deerfield series consists of deep, moderately well drained, coarse-textured soils that formed in sand or loamy sand over deep layers of sand or sand and gravel. This soil is found between areas of somewhat poorly drained soils and well drained or excessively well drained soils at slightly higher elevations. Slopes are 3 percent or less and are slightly concave in places. The hazard of erosion is slight.

Deerfield sands pose moderate constraints to development including construction of buildings, streets and parking lots and the installation of sewage disposal systems due to seasonally-high water tables that are typically 1.5 to 2 feet below the surface. The soils present severe limitations to lawns and landscaping that are not adapted to sandy soils and dry conditions.

Hydric Soils

Wareham loamy sand (We): This soil type is found between marshy areas along marshes, creeks and ponds between poorly drained soils and well drained upland soils. Slopes are generally 3 percent or less. This soil can be found in small areas that are usually long and narrow. These soils present severe challenges to development due to seasonally high water table. Fertility is low and ponding may occur during wet periods.

Atsion sand (At): This soil map unit consists of nearly level, somewhat poorly drained to poorly drained soil near ponds and creeks and along the bottom of deeply cut meltwater channels. This soil has a high water table, and drained areas have very low available moisture capacity. Most areas that have been cleared have been allowed to revert to brush or woodland. Some areas have been filled to provide homesites. Atsion soils tend to have severe constraints to development due to a seasonally high water table with the exception of the construction of streets and parking areas which present moderate challenges. This soil type is better suited to woodland or habitat than to other uses.

Tidal marsh (Tm): This soil consists of wet areas around the borders of calmer embayments and tidal creeks. These level areas are not inundated by daily tide flow, but they are subject to flooding. This soil is very poorly drained and is unsuited for development due to wetness.

Berryland mucky sand (Bd): The Berryland series consists of deep, very poorly drained coarse-textured soils. These nearly level soils formed in deep sandy outwash deposits on low lying wet areas adjacent to ponds, tidal creeks and low gradient streams or between areas of tidal marsh and better drained uplands. This (Bd) is the only Berryland soil mapped in the county. The hazard for erosion is slight. This soil experiences prolonged high water levels and is very poorly drained and therefore is unsuited for development due to its wetness.

Dredge Spoil

Fill land, dredged material (Fd): These areas were filled with material that was removed mainly to widen or deepen waterways or to create new channels. The fill material generally consists of organic materials, sand, gravel and sea shells. Areas may be dry, have low fertility and have a high salt content which limits plant growth.

(Warner, et al., 1975)

A review of the approved subdivision "Map of Southampton Enterprise Zone" (i.e., the former drive-in site and current industrial subdivision on the south side of SR 24) provides additional information about soil conditions and depth to groundwater in a portion of the Study Area based on data retrieved from five separate soil test holes at the site. These data reveal the presence of a topsoil layer ranging between one and two feet and sand and gravel in the substratum in test holes 2 through 4 which were excavated in January of 2002. Groundwater was not encountered in three of the four holes that were dug to depths of between 10 and 14 feet, but was identified at a depth of 12 feet in test hole 5 which was located near the center of the subdivision property. Test hole 1 was dug to a depth of 9.5 feet. This test hole was excavated in August of 2001 and was located on the west side of the subdivision on a lot owned by the Town. The data from this

test hole reveals topsoil to a depth of 0.5 feet, sandy loam from 0.5 feet to 3.5 feet and loose tan sand for the rest of its depth. The water table during August of 2001 was identified at 9.5 feet from the surface. Specific conditions in other areas would be made on a site-by-site basis, as each Block undergoes Town engineering and development reviews.

3.1.3 Topography

Topography in the Study Area is generally flat to gently-sloping with a gradual decrease in elevation from south to north across the Study Area toward the Peconic River. Land surface elevations range from a high of approximately 50 feet above mean sea level (msl) at the southwest corner of the Study Area at the south end of the Riverwoods Community to anywhere between approximately three or four feet to near sea level along the Peconic River. The steepest slopes are also found in the Riverwoods community, near its south end, where the rolling hills and moderately-steep side slopes of the Ronkonkoma Moraine descend, grading into the more gently sloping outwash plain that underlies the Study Area. Small topographic depressions are found at several locations in the Study Area, some of which contain small freshwater wetlands or groundwater fed surface waters bodies. **Figure 3-2** shows topography, elevations, and surface landforms in and around the Study Area.

3.2 Potential Impacts

Adoption of the BOA Study and zoning amendments will not directly impact geology, soils, or topography. However, future development in accordance with same will result in land disturbances and site-specific impacts will be mitigated as described below.

3.2.1 Geology

The Study Area is located on a glacial outwash plain near the mouth of the Peconic River and depth to bedrock is roughly 1,000 feet below surface. Topography is flat-to-gently sloping throughout the entire Study Area except the very southwest corner near the south end of the Riverwoods/MacLeod mobile home park where a small area containing moderately steep slopes exist. No significant geologic or geomorphic features or / landforms exist in the area with the possible exception of the 100-year floodplain of the Peconic River which provides flood storage during severe storms and provides separation between floodwaters and adjacent upland development (**Figure 4-4**). Blasting is not required, as bedrock is not in close proximity to the land surface. Several large parcels along the river are publicly owned and these properties are located within the proposed RO-7 Parkland Overlay Zone which recommends no future development, thereby perpetuating the benefits of the river's floodplain and the protections it affords. Based on a review of the RRAP and associated conceptual development plans, it appears that most privately owned lots in close proximity to the 100-year floodplain have already been developed and the associated structures are located away from the river and 100-year floodplain. A portion of this area near the west end of the river corridor is currently bulkheaded and the 100-year flood zone has been backfilled to create more suitable development sites and to protect adjacent inland development from flooding. Since the Peconic River floodplain is more

commonly associated with water resources than surficial geology, potential impacts to and from the floodplain feature is discussed in **Section 4.0** of this Draft GEIS.

3.2.2 Soils

Cut and Fill and Urban Soils

As previously discussed, the most prevalent soil types in the Study Area are CuB ("cut and fill") and Ur ("urban") soils and the preponderance of future development and redevelopment will take place on these soils (**Figure 3-1**). The native soils that had previously occupied areas now containing the CuB and Ur soils were largely disturbed and mixed with and/or replaced by fill (CuB and Ur) to prepare the land and make it more suitable for development. The reasons for importing soil would have likely been for the purposes of providing materials with fewer drainage and engineering issues and/or to raise sites to provide greater separation between the groundwater table or alleviate the likelihood for surface flooding under severe flood conditions. The specific characteristics of CuB and Ur soils are not provided by the Soil Survey and must therefore be assessed on a site-by-site, project-by-project basis to confirm that the soils present are suitable for development and identify any additional mitigation or engineering that is necessary. This assessment would on-site soil investigations (soil borings and cross section profiles) for each development site and the preparation of detailed engineering plans to address drainage issues and any development constraints.

Plymouth Loamy Sands and Carver and Plymouth Sands

Native upland soils in the Study Area that could be affected by future development include Plymouth loamy sands (PlA and PlB) and Carver and Plymouth sands (CpA). These soils are mostly found near the center of the Study Area at and around the Southampton Enterprise Zone industrial subdivision. PlA, PlB and CpA soils have only slight limitations when it comes to development, due to limited slopes and their sandy texture which provides good drainage but may make the establishment of landscaping difficult. The droughtiness of these soils can be easily overcome by maintaining native vegetation that is adapted to dry (xeric) conditions in areas to remain undeveloped and natural, supplementing natural areas or areas to be disturbed with native or noninvasive species that are well-adapted to site conditions, and/or augmenting the topsoil with loam and/or mulch.

Deerfield Sands

Another upland native soil (i.e., Deerfield sands (De)) poses moderate limitations or constraints to development, including the construction of buildings, streets, and parking lots and installation of sewage disposal systems due to seasonally-high water tables that are typically 1.5 to 2 feet below the surface. A review of the conceptual plan for the project shows very little if any development where these soils exist and it is expected that any potential constraints can be easily overcome by proper grading and possibly minor filling to increase groundwater separation, and/or use of building slabs, if necessary. Since the proposed development will rely on a sewage treatment plant (STP) with advanced treatment capabilities (which are not proposed on De soils),

and the fact that streets or other impervious surfaces that would require stormwater infrastructure are also not proposed in these areas, there is no significant concern of groundwater contamination from on-site sanitary systems or drainage systems.

A very small Town-regulated freshwater wetland exists in a portion of the De soils located south of SR 24 and wetlands are also present adjacent to De soils on the north side of SR 24 at Blocks 45 and 46 in the of the RO-4 Gateway Zone. Town and State wetlands setback and buffer requirements will therefore help to limit development in areas containing where depth to seasonally high groundwater is very shallow/in the root zone.

Deerfield soils also present severe limitations to lawns and landscaping that are not well adapted to sandy soils. This issue can be easily overcome by maintaining native vegetation in areas to remain vegetated, supplementing natural areas with native or well-adapted noninvasive species and/or augmenting the topsoil with mulch or soil that can hold moisture for plant uptake.

Hydric Soils

There are several areas that contain hydric soils. These soils include Wareham loam sands (We), Atsion sand (At), Tidal marsh (TM) and Berryland mucky sand (Bd). Hydric soils are permanently or seasonally saturated by water, resulting in anaerobic conditions, and may be found in or near marshes, freshwater wetlands, periodically inundated floodplains (where fill has not been placed), or areas having a water table near the surface. These soils tend to be poorly drained and pose numerous constraints that complicate or in the case of standing water, essentially preclude development. Due to their presence near or within wetlands and surface waterbodies, these soils are often restricted from development, are undesirable for development or are subject to State and Town wetlands setback and buffer requirements to provide suitable separation between these features. Block 53 is one area proposed for development/redevelopment that contains hydric soils; however, the conceptual development plan appears to show the proposed hotel building on the portion of the site that contains fill or dredge material. Soil borings and profiles identifying soil type, texture, and depth to groundwater, as well as thoughtful design of projects on this block is necessary to mitigate potential impacts associated with poorly drained soils or soils that contain a high water table. This may include but not be limited to proper siting of buildings and structures at the highest elevations on the site where fill has been deposited, use of proper grading and drainage techniques, connection to a STP located off-site, possible addition of fill where depth to groundwater is shallow, limitations on impervious ground cover, and maintaining adequate wetlands setbacks, non-disturbance buffers, and natural vegetation.

Dredge Spoil

“Fill land, dredged material” (Fd) must be assessed on site-by-site and project-by-project bases. Areas containing these soils include land along the Peconic River that is already developed, land that is preserved, and a portion of Overlay Zone RO-6, Block 53. The specific characteristics of Fd soils must also be assessed on a site-by-site and project-by-project basis, including site soil

sampling, analyses of materials, identification of groundwater depth, and the drawing of profiles and to identify any potential constraints to development.

Erosion, sedimentation, and increased stormwater runoff are impacts of future development due to required ground disturbance and increased impervious groundcover from buildings, streets, parking lots and sidewalks. Erosion, sedimentation, and drainage control plans must be prepared for each project as part of site plan review and SPDES General Permits for stormwater and Stormwater Pollution Prevention Plans (SWPPPs) will be required to ensure that future development is properly engineered to prevent or properly mitigate these impacts.

Topsoil that is disturbed for demolition and construction activities will be stockpiled and re-used in the Study Area. Native vegetation will be retained on-site to the maximum extent possible to address Aquifer Protection Overlay District (APOD) and Central Pine Barrens clearing concerns but some clean soil amendment may be brought in to supplement existing clean topsoil as needed for landscaped areas around buildings and improvements. Grading, paving and construction of buildings and topsoil with groundcovers will stabilize the surface soils on-site. The design of the proposed buildings will be based on the structural characteristics of the soils on-site to ensure they have suitable load bearing characteristics for support of building subgrades and foundation elements. Native soils encountered during evaluations may be considered suitable for reuse as load-bearing fill material, as long as proper compaction is undertaken, as specified by the supervising engineer during construction. Materials encountered that are unsuitable for reuse as fill would be removed from the site for proper disposal at an appropriate landfill. The development areas would be stabilized, as determined by a geotechnical engineer, prior to construction of structural elements.

Specific subsurface conditions will be determined in detail as part of the site plan review of that application. The drainage system and sanitary system connection designs will be reviewed in detail by the Town during the site plan review process. The final site plan will not be approved unless it is demonstrated that the sanitary and drainage systems, as well as structural designs, will operate properly and safely. Thus, the final site plan review and approval process will establish that subsurface conditions would not cause a significant adverse environmental impact. Short-term soil impacts will be mitigated through erosion control measures described in **Section 3.3**.

In conformance with Town requirements, all stormwater runoff generated on the developed portion of each property will be retained and recharged in an on-site drainage system utilize subsurface leaching pools to concentrate and recharge stormwater runoff or existing and/or proposed communal recharge basin designed to accommodate in excess of the minimum required by the Town (expressed in inches of storage). A grading and drainage plan will be prepared as part of the site plan submission for each parcel, when developed, which will be subject to review and approval of the Town. This will ensure that the project's drainage system will operate properly and minimize potential stormwater impacts to the maximum extent practicable.

Sites of Environmental Concern

Given the age and historic development in the area and the findings of the inventory of Sites of Environmental Concern conducted by NP&V for the BOA and this Draft GEIS (**Section 7.1.1**), some soil contamination may be present. In order to ensure safe redevelopment sites and to remediate any significant environmental issues or risks during demolition, some soil may have to be removed. This will require Phase I Environmental Site Assessments (ESAs) (and Phase II ESAs as necessary) to fully identify and rectify hazardous conditions including soil contamination from floor drains, fuel storage tanks, past outdoor leak, storage, or spill locations, drywells and other drainage structures, and septic systems and cesspools. Assessments of the potential for asbestos containing materials (ACM) may also be necessary at some sites. The potential impacts from sites of environmental concern as well as normal demolition activities have mainly to do with the management of potentially hazardous materials and demolition debris so that they are properly handled and disposed and not released to the environment. Future demolition, excavation, grading, equipment staging and truck traffic related are discussed in greater detail in **Section 13.0**.

3.2.3 Topography

Minor excavation, cutting, filling and grading will occur in the Study Area in the future to ensure suitable conditions for construction of buildings and foundations, roads, driveways and parking lots and the installation of drainage improvements and utilities. No moderately- or steeply-dipping slopes exist in the area with the exception of a small area of moderately steep slopes at the south end of the Riverwoods/MacLeod mobile home community, or where bulkheads along the river exist, and as such, there is little if any chance for slope failure, no apparent significant need for retention walls, or in light of commonly used mitigation strategies, little significant threat of erosion and sedimentation or need for major grading, cutting, and filling. Although erosion and sedimentation are not considered a major threat based on existing topography, some potential always exists and the presence of wetlands and surface waters in proximity to proposed land disturbance areas raises concerns over potential impacts. Thus, clearing, excavation for foundations and drainage structures, possible bulkheading and backfilling, etc. and construction near these features could result in impacts if adequate mitigation controls such as providing suitable wetland setbacks, non-disturbance buffers, the retention of existing vegetation, and use of common erosion and sedimentation techniques such as seeding, silt fencing, etc. are not instituted. If future development is proposed in proximity to any of these features, the development or disturbance will have to comply with all Army Corps, State, and/or Town wetlands permit standards and conditions.

Stormwater management is also an important issue that affects or is affected in part by topography and topographic disturbances. These concerns are associated with significant increases in impervious surfaces (e.g., buildings, roads, parking lots, etc.) that will be constructed on project sites, the presence of wetlands, and the need for adequate drainage to ensure the general health, safety, and welfare of the community.

Section 3.3, "Mitigation," provides a number of mitigation strategies that can help to reduce the level and degree of impacts to and from site topography. These strategies address erosion and sedimentation control, drainage, and protection of wetlands. Other than excavations for the building foundations and subsurface utility connections, it is not expected that the depths of cutting and filling would be extensive, so that planned re-use of excavated material elsewhere on-site will not require significant import or export of fill.

Site topography and detailed grading and drainage plans must be submitted as part of each site plan application. This information will provide additional details of overall site grading, and will require Town planning and engineering reviews and Planning Board approval prior to project implementation. All grading and the drainage systems must conform to applicable Town regulations including any requirements for stormwater permits and SWPPPs.

Construction management techniques are outlined in **Section 13.5**.

3.3 Mitigation Measures

- Soil test borings will be completed on development sites to identify subsurface conditions, determine their suitability for development, and to identify viable means for mitigation as warranted.
- If unsuitable subsoils are found, techniques including deep compaction or over-excavation and replacement of unsuitable fill materials may be utilized. Development areas would be stabilized, in accordance with the recommendations of a licensed civil engineer, prior to construction of structural elements.
- Erosion control and construction phasing plans will be prepared for future site developments and will be reviewed by the Town Engineer and Planning Board as part of site plan review. The project team, Town Engineer, and Planning Board will determine the most appropriate methods to be utilized during construction to stabilize slopes and soils and the erosion and transport of sediment by stormwater runoff during construction activities.
- Prior to the initiation of demolition and construction activities, brownfields or other sites having "recognized environmental conditions" (RECs) will have to be remediated. Remediation activities are required to be completed according to the protocols, procedures, standards and documentation requirements of the appropriate supervising entity, such as SCDHS, NYS Department of Labor, and/or NYSDEC. Specific issues to be considered include:
    - The current status of past hazardous materials leaks and spills that may pose threats to the environment and the plans to remediate any significant outstanding concerns.
    - The presence of fuel storage tanks on properties to be redeveloped and testing, cleaning and removing them. This involves contacting the appropriate agency at the time of removal, so that the tank grave can be inspected and the abandonment process documented. Tanks may be tested in place prior to removal through a vacuum test or installation of probes around that tank. If a release occurs either during in-place testing or removal, the spill will be documented with the NYSDEC. Remediation would then be directed by NYSDEC or the appropriate agency under a cooperative

arrangement with the NYSDEC. Soil that is contaminated will be removed and disposed at an appropriate facility licensed to accept such waste. If tanks and any resultant contamination are successfully removed, a "sign-off" may be issued by the agency. If existing/residual contamination is discovered on-site, treatment and monitoring may be required. A spill file closure is the end result of either a successful tank removal with remediation or longer term treatment/monitoring as directed by the agency.

  - The removal or abandonment of existing sanitary systems and cesspools in accordance with SCDHS requirements and the backfilling of these spaces with clean sand under the supervision of SCDHS.
  - The abandonment or removal of drywells, leaching systems and floor drains as part of demolition and redevelopment projects. These features will be located, a work plan will be prepared and submitted to SCDHS for approval. The contents of these structures will be sampled (according to established SCDHS protocols), tested per required methodologies and, if and when documented to be appropriate, these features will be remediated (if necessary) and backfilled with clean fill[4]. Contact with the SCDHS will be maintained throughout this process, and will conclude only with written confirmation ("sign-off") from SCDHS.
  - An assessment will be conducted to determine the potential presence of asbestos containing materials (ACM) in buildings to be removed. If such materials are identified, they will be removed in accordance with applicable standards and procedures and the materials disposed at a facility that is licensed to receive them.

- Any proposed demolition, development or other regulated site disturbances within Federal, State or Town wetlands jurisdiction will comply with the conditions of the applicable wetlands permits.
- A water truck, stabilized construction accesses, project limiting fences, suitable on-site staging areas and establishment of buffer areas from surrounding uses are mitigation measures designed to reduce disturbance during construction. Equipment involved in grading will be routed and parked within each parcel in proximity to the grading area, to minimize the amount of truck movements, thereby minimizing the potential for dust.
- Buildings and other impervious structures should be located upland of the 100-year flood zone where possible, be properly constructed or on land that has already been filled to avoid flooding and/or any significant loss of flood storage capacity. Stormwater best management practices (BMPs) such as green infrastructure (landscaped buffers, rain gardens, green roofs, vegetated swales, etc.) should be considered on future development sites that are adjacent to 100-year flood zones. Landscaping vegetative stabilization practices should include native or well adapted noninvasive vegetative species that do not require fertilization or excessive watering. Additional bulkheading and use of pervious surfaces are other strategies that may be employed where practicable to address flooding concerns in accordance with any required Town, NYSDEC or US Army Corp of Engineers permits.
- Surfaces will be temporarily stabilized prior to construction to minimize the potential for erosion.

[4] SCDHS typically involves the USEPA under the Class V Underground Injection Control Program; USEPA will review work plans, oversee remediation, and provide "sign-off" as appropriate at the completion of remediation.

- Maintaining native vegetation that is adapted to dry (xeric) conditions in sandy areas that will remain undeveloped and natural, supplementing natural areas or revegetating areas to be disturbed with native or noninvasive species that are well-adapted to site conditions, and/or augmenting the topsoil with loam and/or mulch.
- Excess soil removed during the construction of foundations, installation of subsurface utilities, etc., will be re-used on-site for landscape areas or transferred to other sites in the Study Area. Any contaminated soils and construction and demolition debris will be taken to an approved C&D landfill. If soil is needed to backfill subsurface improvements, the materials relied upon will be clean sand of a suitable texture.
- The following is a list of some of the erosion, dust and sedimentation control techniques that should be used during future construction.
    - Avoidance of soil disturbance where possible, including the installation of project limiting fences to avoid unnecessary encroachment into areas to remain natural;
    - Installation of silt fencing backed with staked hay bales;
    - Limits on clearing to only what is necessary to implement the plan;
    - Limits on the time spans and areas that are cleared and exposed to the elements at any particular time;
    - Construction of stabilized entrances and rumble strips to remove soil from construction vehicle tires and prevent tracking soil on to streets;
    - Reseeding, construction or paving of disturbed areas as soon as possible after disturbance to ensure soil stabilization;
    - Replacement of silt and sediment accumulated behind silt fences;
    - Use of stormwater control systems that meet the Town Code's minimum engineering specifications, as well as the approval of the Town Engineer and Planning Board of all drainage systems. Drainage designs should be sufficient to accommodate the required precipitation event as per State and Town guidelines;
    - Utilize natural areas where possible to slow the velocity of urban runoff and recharge collected roof and surface runoff into the ground via catch basins and leaching pools or leaching catch basins, and drywells or via an approved advanced stormwater collection and treatment device;
    - Installation of inlet protection;
    - Full compliance with all requirements of NYSDEC SPDES permits for site soil disturbance and implementation of an approved SWPPP; and
    - Full compliance with all Town wetlands permit standards and conditions.

4.0 WATER RESOURCES

4.1 Existing Conditions

This section includes an inventory and assessment of the nature, condition, and quality of water resources in and around the Study Area. It focuses on the identification of existing physical and environmental conditions as it relates to surface waters (i.e., lakes, ponds, creeks, streams, and rivers), as well as tidal and freshwater wetlands, and Federal Emergency Management Agency (FEMA) floodplains, including "Special Flood Hazard Areas" that have an association with some of these features. This section also provides essential information relating to groundwater resources including depth to groundwater, general direction of groundwater flow, and groundwater quality based on water quality monitoring data from Suffolk County Water Authority's (SCWA) Riverside Water District (Flanders Distribution Area 39) so that ambient conditions can be ascertained and potential impacts to critical groundwater resources can be evaluated. The availability and suitability of the water supply and district infrastructure and facilities are discussed separately in **Section 9.0** of this Draft GEIS.

Water resources are important for many reasons including environmental, ecological, recreational, economic, and aesthetic purposes, as well as public health and community sustainability. Unfortunately, the quality of these resources can be easily degraded so as to limit or degrade desired and essential uses and chemical and biological characteristics. Once the integrity of a water resource has become degraded, its restoration to pre-contamination conditions is often difficult and the costs of remediation can be quite high. For these reasons, it is of critical importance that the presence, condition, and general value of all water resources be identified and assessed and any potential adverse impacts to these essential resources stemming from the proposed action are fully evaluated so that they may be avoided or mitigated to the maximum extent practicable.

4.1.1 Surface Waters, Wetlands and Drainage

<u>Surface Waters</u>

There are several surface waterbodies in the area; the most significant is the Peconic River which is located along the northern boundary of the Study Area and separates the Towns of Southampton and Riverhead. The Study Area is located within the Peconic River/Flanders Bay watershed/drainage basin.

The Peconic River headwaters are in the Town of Brookhaven, just west of Brookhaven National Laboratory (BNL), for a distance of approximately 16 miles from the Study Area. The Peconic River meanders in a generally eastern direction from its intermittent/seasonal headwaters location until discharging into Flanders Bay and the Peconic Estuary, in the communities of Riverside (Town of Southampton) and downtown Riverhead (Town of Riverhead) at the junction of Long Island's North and South Forks. The Peconic River is considered a shallow, slow-flowing, warm-water, naturally acidic, and nutrient-poor freshwater stream and ecosystem throughout most of its length. The river becomes tidally influenced and brackish east of

Grangebel Park and Peconic Avenue which are north of the "Riverside" traffic circle, and the ecological communities the river supports changes from a freshwater system to a brackish tidally influenced system. Over its length, the riverbed descends from an elevation of approximately 52 feet above msl at BNL to sea level at the Peconic Estuary. The average daily flow at the Riverhead USGS gaging station located on the east bank of the river, south of Upper Mills Pond, was 24 million gallons per day (gpd) during the 50-year period between 1942 and 1992 with a low daily flow of 10.4 million gpd occurring during 1966 and a high of 43.9 million gpd in 1984 **(Spinello et al., 1993)** making it a major drainage and riverine system. The tidally-influenced portion of the Peconic River (lower/tidal Peconic, its tributaries and western Flanders Bay) which borders the north part of the Study Area, has a New York State saline surface water classification of "SC" indicating its best usage is for fishing. These areas must be maintained as suitable for fish propagation and survival and primary and secondary contact recreation, although other factors may limit their use for these purposes. Currently, the NYSDEC classifies the lower/tidal Peconic, its tributaries and western Flanders Bay as "impaired" due to the presence of pathogens, nutrients and low dissolved oxygen **(NYSDEC, 2014)**. The impacts to water quality may be related to the presence of numerous septic systems and cesspools on small lots where groundwater levels are high, stormwater runoff (especially any point discharges, particularly from downtown Riverhead), the Riverhead sewage treatment plant (STP) that discharges directly to the Estuary, farming activities within the watershed (there are no farming activities in the Study Area), wildlife contributions, atmospheric deposition, and possibly domestic fertilization on both sides of the river.

The river is noteworthy in many respects and has the following important distinctions:

A. It is designated as a State Wild, Scenic and Recreational River and a candidate for a Federal Wild, Scenic, and Recreational River (WSRR) designation. The State "Recreation" designation extends along a section of the freshwater portion of the river, east to the Grangebel Park dam, south to SR 24, east to the traffic circle, south along Lake Avenue (CR 63), east along Maynard Street and south to encompass the property containing a small undisturbed forest and pond to the south of the Maynard Street within the Study Area (see **Figure 4-1)**. Therefore, a small portion of the WSRR in the Study Area includes the developed residential neighborhood west of Lake Avenue, County owned land and adjacent woodland, a small portion of which is on the east side of this site in the proposed RO-3 zone.
B. The Peconic River is a major tributary of the Peconic Estuary which is considered by the NYSDEC to be a "Significant Coastal Fish and Wildlife Habitat" ("SCFWH"). Portions of the Study Area identified as SCFWH include the freshwater portion of the river corridor, west of the Grangebel Park dam which is upstream and outside of the Study Area and another SCFWH in the estuary that east of and far removed from the Study Area. Based on this description, there are no designated SCFWH areas within or adjacent to the Study Area.
C. The U.S. Fish and Wildlife Service considers the Peconic River to be a "priority" wetland under the Federal Emergency Wetlands Resources Act.
D. The Nature Conservancy and the NYSDEC Natural Heritage Program have identified several locations in the Peconic River/Central Pine Barrens Complex as "Sites for

Diversity" (Actual ecological conditions within the Study Area based on field inventories and agency outreach are assessed separately under **Section 5.0** of this Draft GEIS).

E. The larger Peconic system is considered by the Nature Conservancy to be one of the "Last Great Places."
F. It is the longest river on Long Island and has the distinction of being the longest, groundwater-fed river in the State of New York **(Cashin Associates, 2004)**.

There are a several small freshwater ponds in the Study Area which have a total combined area of 6.5 acres. One is located east of Lake Avenue and south of Maynard Street within a publicly owned property. Two additional very small surface water features (likely used for drainage recharge or as a wet/detention pond) are located near the Riverwoods/MacLeod mobile home park in the southwest corner of the Study Area, and one is located just east of the Riverwoods community on the west side of Riverleigh Avenue. These features, along with the Peconic River and several other surface waterbodies in the surrounding area, provide insight into the drainage patterns, surface hydrology, and relationship between groundwater and surface water in the area.

Several small ponds and groundwater-fed topographic depressions, as well as a large perennial 66-acre surface water body known as Wildwood Lake (which is located approximately 0.83 miles to the southwest and upstream of the Study Area), are nearby waterbodies that also define the area's drainage patterns and hydrology. Wildwood Lake serves as the headwaters of the northeasterly-flowing Little Peconic River which flows through Cranberry Bog Preserve located outside but along the outer edge of the western boundary of the Study Area to its confluence at the Peconic River at Grangebel Park, just west of the Study Area. Also, outside and to the east of the Study Area are 90 acres of land containing two ponds collectively referred to as "Flanders Ponds" by the Central Pine Barrens Joint Planning and Policy Commission (CPBJPPC). These two ponds are considered by the CPBJPPC to be within a Central Pine Barrens Critical Resource Area and drain into a tidal creek that discharges into the tidal portion of the Peconic River just west of Cross River Drive (CR 105). These natural features are located several hundred feet east of Ludlam Avenue, over 1,000 feet east of any potential development identified by the RRAP, and are within a large tract of protected land.

The tidal portion of the lower Peconic River, along the edge of the northerly boundary of the Study Area, discharges into Flanders Bay which is the westernmost reach of the greater Peconic Estuary. The Peconic Estuary is identified as one of 28 estuaries within U.S. territory that are included in the National Estuary Program (Section 320 of the Clean Water Act). In 2001, the United States Environmental Protection Agency (EPA) sponsored the Suffolk County Department of Health Services (SCDHS) Peconic Estuary Comprehensive Conservation and Management Plan (CCMP) in order to establish a master planning strategy to protect and manage the Estuary and its many resources **(Peconic Estuary Program, 2001)**. The CCMP includes substantial information on the Estuary's water quality and identifies agreed upon goals, objectives, and strategies for preserving and protecting this critical natural resource. The 2001 CCMP indicates that the western portion of the Peconic Estuary, including the tidally influenced segment of the Peconic River, have degraded water quality due to anthropogenic land uses and activities. Of particular concern in this area are high nitrogen concentrations, low levels of dissolved oxygen (hypoxia), and the presence of pathogenic organisms at levels that forced the closure of the Peconic River and Flanders Bay to shellfishing.

In order to address the eutrophication and dissolved oxygen issues caused by nutrient enrichment in the lower Peconic River and western Flanders Bay, the NYSDEC established a total maximum daily load (TMDL) standard for nitrogen pursuant to Section 303(d) of the Clean Water Act. The analyses, conclusions and recommendations that preceded the TMDL are available in a multiagency report entitled "Total Maximum Daily Load for Nitrogen in the Peconic Estuary Program Study Area, Including Waterbodies Currently Impaired Due to Low Dissolved Oxygen: the Lower Peconic River and Tidal Tributaries; Western Flanders Bay and Lower Sawmill Creek; and Meetinghouse Creek, Terrys Creek and Tributaries" **(Tetra Tech, Inc. *et al*, 2007)**. A summary of nutrient loading and impact reduction strategies for the Peconic/Flanders Bay nitrogen TMDL is as follows:

- Better regional controls of atmospheric deposition (lower emission standards for NO_x and CO_2, adoption of regional greenhouse gas initiatives, establishing a collaborative renewable energy strategy);
- Preserve open space;
- Enhance agricultural fertilizer management;
- Maintain (periodically pump) existing septic systems;
- Provide centralized sewers with enhanced treatment capabilities;
- Upgrade treatment capabilities at the Riverhead, Sag Harbor and BNL STPs;
- Cluster development to limit the establishment of lawns;
- Control development density;
- Reduce vehicle miles driven by allowing mixed use developments;
- Proper turf management including limiting fertilizer use and/or loss to groundwater;
- Ensure proper stormwater erosion and sedimentation controls; and
- Eliminate illegal or illicit discharges.

Wetlands

Topography along the south bank of the Peconic River can be characterized as flat-to-gently sloping with limited topographic relief. Due to the Study Area's proximity to the river and ground surface elevations, land adjacent to the south bank contains an assemblage of high marsh, intertidal marsh, and freshwater wetlands that are regulated by the NYSDEC. Some areas of freshwater wetlands extend south toward SR 24 along the west side of a small residential community and south from the river a short distance along the northeasterly boundary of the Study Area. The above described wetlands comprise the river's southern floodplain. Wetlands that once existed along the south side of the river in the northeast corner of the Study Area were apparently filled by dredge spoil removed during a long past river dredging project. Much of the shoreline along the river at the west end of the Study Area, closest to the traffic circle is bulkheaded. (**Figure 4-2** provides an illustration of the NYSDEC designated wetlands.)

Other NYSDEC and National Wetlands Inventory (NWI) freshwater wetlands in the Study Area include (**Figure 4-3** depicts the locations of NWI Wetlands):

- A narrow fringing forested and shrub freshwater wetlands along the banks of the Little Peconic River adjacent to but outside of the western boundary of the Study Area;
- A small pond and associated pond shore and forested freshwater wetlands on a wooded lot south of Maynard Street and east of Lake Avenue (CR 63);
- Two very small ponds and fringing freshwater wetlands southeast of Pond Drive and west of Riverleigh Avenue (CR 104); and
- An area of forested and emergent freshwater wetlands adjacent to but outside the eastern boundary of the Study Area along White Brook Drive.

The Town also regulates freshwater and tidal wetlands within its jurisdictions that are not mapped by the NYSDEC or NWI. Two very small freshwater wetlands that are not mapped by the NYSDEC or NWI were identified in the Study Area during area field investigations conducted by NP&V's ecological staff. These features are regulated by the Town of Southampton as freshwater wetlands. One of these wetlands includes a very small red maple swamp located in the southwest corner of the Suffolk Federal Credit Union property and the other is a small wetland in a shallow topographic depression or swale located at the north end of Suffolk County Tax Map (SCTM) number: 900-139-3-10.2. These wetlands are generally located south of SR 24 around the center of the Study Area.

Study Area Drainage

Natural drainage, including overland runoff and underflow from natural infiltration or by direct recharge of water through dry wells and leaching pools is expected to flow in a north to north-northeasterly direction toward the Peconic River. Existing development, including streets, highways and parking lots, utilize stormwater catch basins, leaching pools, drywells or natural infiltration processes on pervious surfaces to handle drainage. The State also owns and operates a stormwater recharge basin on the north side of SR 24 across from Suffolk Community Credit Union which serves this highway. Other designated recharge areas in the Study Area include Town-owned land identified as SCTM # 900-141-1-9.25 located within the Southampton Enterprise Zone industrial subdivision, where currently, no recharge basin exists, and land located along the west side of Pebble Way identified as SCTM # 900-142-1-1.41, as well as a lot owned by the school district which is located between Phillips Avenue and Ludlam Avenue which is identified as SCTM # 900-141-2-36.1. The Study Area contains a number of stormwater catch basins, drainage leaching pools, outfalls, and piping that serve the area streets and highways and mitigate existing stormwater impacts.

Watersheds and Pollutant Loading

As previously described, it is recognized that the Peconic River is currently impaired due to high levels of nitrogen and pathogens within the river which ultimately cause eutrophication and harmful algal blooms. Stormwater runoff from surrounding land uses is a key cause of the impairment of the Peconic River. In order to evaluate the pollution contribution of the Riverside hamlet to the river and to further define areas of stormwater runoff, sub watersheds were delineated utilizing the Suffolk County Light Detecting and Ranging (LiDAR) data collected in 2006. A total of 23 subwatershed areas were defined that intersect the Study Area (**Figure 4-10**).

The watersheds were then clipped to the Study Area so that the contribution of runoff from the Study Area only could be further defined.

Pollutant contribution of the Study Area was modeled utilizing the Center for Watershed Protection's Watershed Treatment Model (WTM). The model considers land use, septic input, livestock (if any), soil type, rainfall and current management practices, and utilizes referenced values for pollutant runoff for nitrogen, phosphorus, sediment and coliforms. Utilizing land use values for 2015, the model was run for each subwatershed, a copy of the results of which are summarized in **Appendix E**. As illustrated in the model results, subwatershed 3 is the largest contributor of pollutants to the river (701 lbs/year of nitrogen and 20,698 billion/year of fecal coliforms). This watershed represents the core area of commercial development in proximity to the CR 94 Roundabout. Subwatershed 21 provides the smallest pollutant contribution to the river (4 lbs/year of nitrogen and 21 billion/year of fecal coliform), however, this watershed is located directly along the shoreline and is comprised of natural areas. In total, based on surface water modeling using the TWM, the Study Area currently contributes 5,975 lbs/year of nitrogen, and 158,387 billion/year fecal coliforms. **Section 4.2.1** provides a comparison of stormwater inputs under the Theoretical Development Scenario to stormwater inputs from existing land uses.

4.1.2 FEMA Flood Zones

Based on a review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), approximately 44 acres located along the south bank of the Peconic River, north of SR 24, are within a FEMA-designated AE (100-year) Special Flood Hazard Area (SFHA).[1] A narrow band of X500[2] ("500-year" flood zone) is also present adjacent and to the south and inland of the AE zone, especially near the traffic circle, around the Suffolk Federal Credit Union and in the area containing old dredge spoil deposits (FEMA flood zones are depicted in **Figure 4-4**). The X500 zones comprise areas that are at minimal risk due to flooding from a principal water body in the area (i.e., the Peconic River). Nevertheless, land and structures at these locations can be affected by extremely severe storms, particularly if the area is poorly drained and stormwater controls, building siting, and other factors are inadequate. All other land within the Study Area is within FEMA's X (upland or non-flood zones) and is therefore very unlikely to ever be affected by flooding. A narrow "A" Flood Zone exists along the Little Peconic River. This zone generally follows the western boundary of the Study Area and affects only a very small portion of the Study Area within the rear setback of a few of the existing developed single-family lots and poses no significant issues or concerns. **Figure 4-4** depicts FEMA AE SFHA, X500, and X flood zones in the area.

[1] A 100-year storm is defined as a storm with a magnitude having a one percent chance of occurring during the course of any given year.
[2] The X500 zone is defined as the area located between the 100-year flood zone and the 500-year flood zone. The DGEIS FEMA map identifies this as the X-0.2% annual chance of flood hazard.

4.1.3 Groundwater

Groundwater on Long Island is entirely derived from precipitation. Precipitation entering the soils in the form of recharge passes through the unsaturated zone to a level below which all strata are saturated, known as the water table. The groundwater table is equal to sea level on the north and south shores of Long Island and is at or near sea level along the banks of the tidal Peconic River and Estuary, and rises in elevation toward the center of the Island. The high point of the parabola is referred to as the groundwater divide. Near the Peconic River, groundwater flow is generally north toward the river; therefore, on the south side of the river within the Study Area, flow is generally to the north or north-northeast and the time of travel of groundwater to the Peconic River ranges between days in areas immediately proximate to the river to as much as 10 to 25 years at the south end of the Study Area near the intersection of Ludlam Avenue and Pebble Way (**Figure 4-5**). Depth to groundwater from the ground surface is variable within the Study Area depending on surface elevations (topography as depicted in **Figure 3-2**) and how near or far from the river depth to water is measured due to increasing water elevations to the south with distance from the river. Based on available water table data compiled by the County, presented graphically by the Town in **Figure 4-6**, depth to groundwater in the Study Area ranges from near zero at few locations near the river to approximately 35 feet at the south end of the Study Area between Oak Court and Elm Court in the Riverwoods Community. General depth to groundwater zones are shown in **Figure 4-7**.

Groundwater beneath the Central Pine Barrens of Suffolk County is contained in three water bearing geologic units called aquifers. These units include, in descending order, the Upper Glacial Aquifer formed during the Pleistocene Epoch of the Quaternary Period, and the Magothy and Lloyd Aquifers of the Cretaceous Period all of which overlie Precambrian-aged metamorphosed bedrock (gneiss and schist) **(Nemickas and Koszalka, 1982)**.

The Lloyd aquifer is very deep and contains primarily saline water in areas below the east end of Long Island; this aquifer is not used for water supply on the east end. Otherwise, groundwater in the two shallower aquifers is considered to be easily extractable and of generally good quality; although localized areas of degradation do exist, especially in the Upper Glacial Aquifer which is closer to the surface. Sources of known or suspected contamination in the Peconic River and Peconic Estuary Watersheds include but are not limited to agricultural fields (agricultural activities) and lawn and garden maintenance (i.e., fertilizers and pesticides), leaking underground fuel storage tanks (e.g., gasoline from filling stations), certain industrial operations (industrial chemicals, solvents, fuels, metals, etc.), hazardous materials spills, and septic systems and cesspools (pathogens and nutrients). Stormwater is also noted as a major source of surface water and groundwater contamination; however, runoff is more of a pollutant conveyance and delivery mechanism than an actual source of contamination. That is, stormwater runoff does not inherently contain significant concentrations of contaminants but is very effective at detaching and “washing” them from streets, parking lots, outdoor materials storage areas, lawns, gardens, and other surfaces, mobilizing both soluble and non-soluble materials, and transporting them to areas of deposition via point or nonpoint discharges where they accumulate in groundwater and surface waters.

The quantity of groundwater available for use (assuming the supply is of good and potable quality) is largely a function of the thickness and areal extent of an aquifer and the texture, sorting and degree of consolidation or compaction of the geologic materials comprising the source media. Long Island's freshwater aquifers (primarily the Upper and Magothy Aquifers) are generally considered to contain a significant volume of potable water, especially within its deep recharge areas in the Central Pine Barrens, the Town's Aquifer Protection Overlay District (APOD) and the region's Special Groundwater Protection Area (SGPA), where the underlying groundwater reservoirs are very thick and contain considerable uncompacted coarse grained sand and gravel with significant storage capacity.

All of Nassau and Suffolk Counties' businesses and residents rely on groundwater for potable water. Since groundwater is the only source of potable water on Long Island, the EPA has designated the Island's groundwater supply as a "sole source aquifer" pursuant to the Federal Safe Drinking Water Act (SDWA). This designation, along with burgeoning population growth, increasing water demands, and threats of groundwater contamination from urbanization and suburbanization, all point to the obvious need to protect this vital resource for current and future generations. For these reasons, various State, regional, and County agencies have expended considerable effort in identifying the best ways to protect groundwater resources, and in so doing have commissioned numerous studies that have culminated in a variety of plans, policies, laws and standards for regulating activities that may jeopardize groundwater quality (including those promulgated by the CPBJPPC), 1995; Long Island Regional Planning Board (LIRPB), 1992; Nassau-Suffolk Regional Planning Board (NSRPB), 1978; and SCDHS, 2008, 2004 and 1987.). Substantial planning and regulatory efforts have also been undertaken by the Town of Southampton to ensure the protection of its groundwater resources.

Land located south of the SR 24 (with the exception of a small area of land located north of SR 24 and west of Peconic Avenue) in the Study Area is within several groundwater management areas:

- Central Pine Barrens Compatible Growth Area (CPBJPPC, 1996);
- Town of Southampton Aquifer Protection Overlay District (APOD);
- Town of Southampton Central Pine Barrens Overlay District (CPBOD) (which serves to implement the regional Central Pine Barrens Plan in the Town of Southampton);
- Central Suffolk Special Groundwater Protection Area (South) (LIRPB, 1992); and
- Suffolk County Groundwater Management Zone III (SCDHS, 2004).

Land located north of SR 24 is within Groundwater Management Zone IV and is not within any special groundwater protection areas (**Figure 4-8**).

Based on a review of the Riverhead Quadrangle topographic map and more recent LiDAR topography, the ground surface elevation within the Study Area ranges between nearly sea level at the land/river interface to 50 feet above msl in an existing residential neighborhood at the southwest end of the Study Area. Areas that are targeted for development and redevelopment tend to have more intermediate surface elevations and exhibit a topographic profile that is relatively flat to gently sloping. A review of a depth to groundwater map for the Study Area prepared by the Town's Geographic Information Systems (GIS) Division (**Figure 4-7**), available

water table contour information published by the SCDHS (**Figure 4-6**) and the USGS, and topographic data prepared by the USGS (**Figure 3-2**), depth to groundwater in areas to be developed or redeveloped range from approximately three to five (3-5) feet on the north side of SR 24 near the traffic circle, four to nine (4-9) feet on and near the south side of SR 24 west of Suffolk Federal Credit Union, nine to thirteen (9-13) feet in the west central portion of the Study Area along Riverleigh Avenue and Vail Avenue, and greater than thirteen (>13) feet along most of Old Quogue Road, around much of the industrial subdivision site, and within the large vacant wooded lot that is adjacent to the west of the subdivision.

Water Balance and Groundwater Quality

The area is served with potable water by the SCWA Riverside Water District (RSWD) which is part of the SCWA Flanders Distribution District (Distribution Area 39). Generally, water quality data from a wellfield drawing from the Upper Glacial Aquifer (Long Island's shallowest aquifer), would tend to reflect land use practices and recharge conditions in areas that are nearby and upgradient of those wellfields.

SCWA does not have any well fields within a 1,500 foot radius of the Study Area. The nearest SCWA facility is the Oak Avenue well field located approximately 1.6 miles southeast of the Study Area. This wellfield contains one active well completed to a depth of 118 feet below grade and the screened portion of the well is between elevations -1.23 to -31.23 feet below msl. The Study Area is also outside of any of SCWA public water supply capture zones. The Riverside Revitalization Area is located roughly 4,300 feet from the nearest Riverhead municipal water district supply well, which is located near the southwest corner of the intersection of Pulaski Street and Raynor Avenue on the opposite side of the Peconic River from the Study Area.

Currently, threats to groundwater in Riverside include sanitary wastewater discharge from septic systems and cesspools; stormwater runoff recharged to groundwater from recharge basins, drywells, and leaching pools; the use, generation, handling, storage, and/or disposal of hazardous materials at junkyards, auto repair shops, filling stations, industries, etc.); and to a lesser extent, the possible application of fertilizers and/or pesticides on some properties. Common groundwater contaminants include nutrients (mainly nitrogen), pathogens, volatile organic compounds (VOCs) including gasoline, solvents, some industrial chemicals, etc.; and synthetic organic compounds (SOCs) such as pesticides, some industrial chemicals, etc.

Public supply wells are routinely monitored by SCWA in accordance with federal, state and local standards and requirements. The 2015 SCWA Water Quality Report (for calendar year 2014) was reviewed for the most recent available summary of monitoring results for water quality in Distribution Area No. 39. A total of 96 separate water quality parameters were tested for in 2014, including a variety of inorganic constituents (e.g., metals), VOCs, SOCs, and water disinfectants and disinfectant byproducts (chlorination). In total, 1,471 individual tests were performed in the district in 2014. Not one of the test results for this distribution area exceeded established maximum contaminant levels (MCLs) **(SCWA, 2015)**.

Nitrate is an inorganic compound of local concern as it can cause health problems in infants.[3] Nitrate was not detected in any of the ten samples taken in 2014. Sources of nitrate primarily include fertilizers, sanitary system discharge, animal wastes and atmospheric deposition. A lack of any nitrate in concentrations above the minimum detection limit is quite unusual and suggests a relatively pristine and well protected groundwater resource in the well field contributing areas.

Of the 21 types of SOCs and 23 types of VOCs that were monitored for in Distribution Area 39 throughout 2014, not one was detected. The absence of even a trace of SOCs and VOCs is further evidence that the water supply serving the Riverside community is of a very high quality.

Disinfection and disinfection/chlorination by products were also well below the applicable standards for the eight parameters tested for (one of the parameters, chlorate, does not have an MCL).

The full set of 2014 groundwater quality data for SCWA Distribution Area No. 39 is provided in **Appendix D-1**. Based on a review of these data, the groundwater quality within the groundwater contributing area of Distribution Area No. 39's wells during 2014 was excellent.

The groundwater budget for an area is expressed in the hydrologic budget equation, which states that recharge equals precipitation minus evapotranspiration plus overland runoff. This indicates that not all rain falling on the land is recharged. Loss in recharge is represented by the sum of evapotranspiration and overland runoff. The equation for this concept is expressed as follows:

$$\mathbf{R = P - (E + Q)}$$

where: **R** = recharge
P = precipitation
E = evapotranspiration
Q = overland runoff

Nelson, Pope & Voorhis, LLC (NP&V) has utilized a microcomputer model developed for its exclusive use in predicting both the water budget of a site and the concentration of nitrogen in recharge. The model, referred to as "**SONIR**" (**S**imulation **O**f **N**itrogen **I**n **R**echarge), utilizes a mass-balance approach to determine the nitrogen concentration in groundwater recharge. Critical in the determination of nitrogen concentration is a detailed analysis of the various components of the hydrologic water budget, including recharge, precipitation, evapotranspiration and overland runoff. The basis for this method of nitrogen budget analysis is well established, and similar techniques have been used to simulate nitrogen in recharge as published by the New York State Water Resources Institute, Center for Environmental Research at Cornell University, Ithaca, New York (BURBS - A Simulation of the Nitrogen Impact of Residential Development on Groundwater). The SONIR model includes four sheets of computations: 1) Data Input Field; 2) Site Recharge Computations; 3) Site Nitrogen Budget; and 4) Final Computations. There are a number of variables, values and assumptions concerning hydrologic principles, which are

[3] High concentrations of nitrogen can also cause water quality and environmental issues in coastal waters including increases in algae production and reductions in dissolved oxygen concentrations in tidal waters that may lead to hypoxia (low oxygen) or anoxia (no oxygen) causing fish kills.

discussed in detail in the user manual developed for the SONIR Model and provided in **Appendix D-2**.

The model was run to obtain the existing water budget and nitrogen concentration in recharge. The run was based on current site conditions and land use coverages (see **Table 2-10**). Based on SONIR, the Study Area currently has a recharge of 474.07 million gallons per year (MGY). The portion of the Study Area within the Central Pine Barrens currently has a recharge of 399.48 MGY. The results of these analyses are presented in **Appendix D-3**.

A detailed assessment of the existing concentration of nitrogen in site-generated recharge can be made by calculating the total nitrogen input to groundwater, diluted by the total volume of recharge water. The basis for this simulation was established in the Long Island Regional Planning Board's ("LIRPB") "208 Study" and further developed by the Cornell University, Water Resources Program. SONIR uses these basic methodologies to establish a mass-balance analysis of the concentration of nitrogen in recharge. As was discussed above, SONIR was utilized to determine the present nitrogen concentration in recharge; the results are presented in **Table 2-10** and in **Appendix D-3**. The estimated nitrogen concentration in recharge generated within the existing Study Area is 4.58 milligrams per liter ("mg/l"). The estimated nitrogen concentration for the portion of the Study Area within the Central Pine Barrens is 4.83 mg/l.

The concentration of nitrogen emanating from the existing Study Area is relatively high for an aquifer that discharges to a sensitive surface water body such as the Peconic River. In addition, the portion of the site within the Central Pine Barrens was analyzed separately in order to compare the concentration of nitrate-nitrogen in recharge for comparison to the Pine Barrens guideline of 2.5 mg/l (Guideline 5.3.3.1.3) for a Development of Regional Significance (DRS). As will be discussed and referenced in the Critical Environmental Area section **(Section 6.2.1)** of this DGEIS, the Proposed Action is being considered as a DRS in order to comprehensively address the Theoretical Development Scenario against applicable standards and guidelines of the Central Pine Barrens CLUP as though the TDS was constructed. It should be noted that new development promoted by this revitalization effort first requires the Town to adopt the proposed overlay zoning to facilitate redevelopment, after which it is not known when or if the TDS will be achieved due to land ownership, owner preferences, market conditions and other factors. Nevertheless, a comprehensive approach to review of applicable land use regulations is important to ensure that SEQRA is complied with, issues and impacts are identified, mitigation can be examined, and conditions and thresholds established as a result of this DGEIS and the subsequent Final GEIS and Statement of Findings. As noted, the Study Area within the Central Pine Barrens currently has a concentration of nitrogen in recharge of 4.83 which exceeds the nitrate-nitrogen goal of 2.5 mg/l. As a result, the goal of redevelopment within the Central Pine Barrens portion of the Study Area is to not cause an increase in the concentration of nitrate-nitrogen as compared with existing conditions.

4.2 Potential Impacts

4.2.1 Surface Water, Wetlands and Drainage

In general, impacts to surface waters, wetlands and drainage conditions may occur as a result of increased development including increased land development, potential increased use of fertilizers and pesticides, increased wastewater discharge, greater stormwater runoff that may contain various pollutants and potential erosion and sedimentation during construction.

In regard to increased density and human activities, while density may increase, the types of land uses permitted by the proposed optional overlay zoning are expected to be more compact and sustainable, particularly as regards stormwater, wastewater, water use, landscape management and use, storage or handling of toxic or hazardous materials. Stormwater management will be consistent with current Town requirements and will recharged/managed using leaching pools, detention areas and biofiltration. Wastewater from new development will be treated using most current technologies. Water use will be managed to maximize conservation. The use of fertilizers and pesticides will be greatly reduced or eliminated due to the standards, guidelines and requirements set forth by the APOD, CPBOD, and Peconic Estuary Conservation and Management Plan including but not limited to clearing restrictions, standards for the use of native vegetation in landscaping, limitations on the percentage of land that is dedicated to fertilizer dependent landscaping, nitrate loading limitations, and many others. Future development will likely utilize natural gas for heating and cooking rather than fuel oil, kerosene or similar petroleum products that can be harmful to water resources if released. In addition, no uses will store large quantities of toxic or hazardous materials.

As previously noted, septic systems and cesspools on redevelopment sites will be inspected, cleaned and removed or abandoned in accordance with state and local requirements and sewage from future development will be conveyed to an approved, monitored, and maintained STP where it will receive advanced treatment before being recharged into the ground. STPs are required to be operated by trained professionals, are routinely maintained and monitored, and must comply with all required standards and requirements of a State Pollution Discharge Elimination System (SPDES) discharge permit or perform the necessary upgrades to ensure continual compliance. Sewering the area would provide many benefits to area wetlands and surface waters such as the Peconic River and Peconic Estuary, and further the purposes and intents of the Central Pine Barrens Comprehensive Land Use Plan, the Long Island Special Groundwater Protection Area Plan, and the Town's APOD and CPBOD. Moreover, sites that have a history of contamination or are found to have contamination above regulatory thresholds will be cleaned up prior to redevelopment thereby improving the quality of the environment.

Any work that is performed within Federal, State, or Town wetlands jurisdictions. Such as clearing, digging, dredging, cutting, filling, planting, seeding, bulkheading, demolition, construction, etc. will require wetlands review and compliance with the conditions of the wetlands permit. Conditions may include but are not limited to compliance to wetlands setbacks, non-disturbance buffers, limitations on clearing and other activities, ensuring the use of appropriate landscaping, soil stabilization and erosion and sedimentation controls, construction

staging requirements, the filing of restrictive covenants and easements, and more, depending on the work to be performed, its location, and various other factors.

There is currently considerable publicly owned and dedicated open space along the Peconic River within the Study Area, as well as thousands of acres of natural open space surrounding the Riverside/Northampton/Flanders Area. The proposed RO-7 Zone promotes the continuance of natural open space along the river and along with the thousands of acres of nearby open space, helps to offset total development density and potential impacts to surface water and wetland resources.

During the construction period, precautions described in **Sections 3.3** and **13.5** will be taken to ensure that sediment will not be transported off-site by stormwater runoff and, as a result, there would be no impact to local conditions. In addition, an erosion control plan will be prepared that incorporates the NYSDEC Guidelines for Urban Erosion and Sediment Control and all future development will be performed consistent with the conditions and specifications of any required SPDES stormwater permits and SWPPPs. Typical construction impact control measures to be utilized for future development include:

- Flagged clearing limits followed by installation of the erosion control measures.
- Silt fencing with staked hay bales, storm drain inlet protection, and good housekeeping procedures.
- Stabilized construction entrances to prevent soil on truck tires from being tracked onto the public road system.
- Proper management and disposal of demolition materials.
- Installation of permanent stormwater controls once construction is completed.

Subsequent to this period, permanent occupancy and operation of the project sites would not be expected to impact water resources in consideration of the following:

- The Site Grading and Drainage Plan (to be prepared as part of the site plan application) will be subject to thorough review and approval of the Town Engineering Division prior to approval. This plan will be designed to prevent runoff from developed surfaces from causing erosion, sedimentation or impacts to land or water resources.
- The Proposed Project will be provided with a drainage system that will retain all runoff generated within the developed area and direct it into on-site recharge facilities, so that no such runoff may impact off-site properties.

The proposed structures will be constructed in conformance with all applicable Town and State Building Codes and will not encroach into low-lying areas or alter drainage characteristics of adjacent or nearby properties. Finally, the project will be subject to detailed review by the Town Engineering Division as part of the site plan review process, ensuring that no impact to or from floodwaters will occur.

Watersheds and Pollutant Loading

In order to compare input of pollutants under the Theoretical Development Scenario, the Watershed Treatment Model was run for future land use conditions within each subwatershed. It

was assumed that all new development would require, at a minimum, two inches of storage of stormwater runoff in infiltration practices. It is noted that green infrastructure options may be utilized to enhance treatment of stormwater for any given project; however, for analysis purposes, the conservative estimate of utilizing infiltration structures alone was utilized. In this scenario, watershed six which encompasses the majority of the Enterprise Park provides the greatest contribution of pollution inputs to the river, when not accounting for drainage improvements; however, when accounting for required drainage, watershed 10 provides the greatest contribution of pollutants to the river. Watershed 21 continues to provide the smallest contribution to the river as the use and natural state within the watershed will not change.

Under the Theoretical Development Scenario, the overall loads of nitrogen and coliforms increase to the river when not considering drainage improvements. The loads from the new land uses for nitrogen increases to 6,607 lbs/year (existing 5,976 lbs/year) while coliforms increase to 195,423 billion/year (existing 158,387 billion/year). When drainage practices of storing a minimum of 2 inches of runoff in infiltration structures are applied to the Theoretical Development Scenario, the nitrogen input decrease to 4,460.3 lbs/year, which is below existing conditions. When considering drainage practices for fecal coliform inputs, a decrease to 95,038 billion/year is realized as compared to the base load under the Theoretical Development Scenario; this represents a decrease in that over existing conditions. As a result, development under the Theoretical Development Scenario is anticipated to result in a net reduction of pollution contributions to the river due to the drainage practices that would be required to be installed.

4.2.2 FEMA Flood Zones

There is the potential for some minor encroachment into FEMA's 100-year SFHA. This however, will be addressed as needed by siting development and site disturbance as far away from areas that may flood during the 100-year storm as possible, bulkheading, backfilling, and stabilizing the riverbank, filling and or grading of upland areas to raise elevation slightly and ensuring proper building construction in accordance with any and all existing regulations, permits, and approvals as appropriate. Any construction within designated FEMA flood zones will be constructed in conformance with applicable building elevation requirements of that zone, as applicable. The Town of Southampton will review any encroachments in accordance with Chapter 169, Flood Damage Prevention, of the Town Code.

4.2.3 Groundwater

Hydrogeology

As discussed below, the volume of stormwater recharged on the site is expected to be increased by the Proposed Project, due to the increase in the acreage of paved surfaces and installation of drainage recharge systems. All stormwater will be contained in conformance with applicable Town requirements for stormwater detention, and where applicable, sites with disturbance of greater than 1-acre will conform to SWPPP requirements for drainage detention. At present, stormwater is not managed consistent with current Town requirements as many areas within the

Study Area were constructed prior to the current, more stringent containment/detention requirements. Wastewater treatment will be required for any areas that exceed Article 6 density limitations. It is not currently known where wastewater treatment facilities will be located. Any STP siting will require adequate depth to groundwater for leaching facilities, and conformance with applicable setbacks that will ensure a site that can accommodate an STP. The permeability of soils is excellent based on soil characteristics, and horizontal permeability is typically greater than vertical permeability, therefore, leaching facilities are not expected to cause mounding of groundwater or change in direction of groundwater flow. In regard to groundwater levels due well pumping, the source of the potable water is approximately 1.6 miles from the Study Area and therefore would not be affected by activities within the Study Area. For new development, recharge will be distributed throughout the sites in subsurface drainage structures and, as a result, the relatively high permeability of the Upper Glacial deposits will allow groundwater to rapidly flow horizontally and thereby maintain a relatively stable water table configuration. Consequently, the direction of horizontal flow of groundwater would not be affected by the expected recharge increase, as the shape of the water table controls this characteristic. Thus, the Proposed Project is not anticipated to impact hydrogeologic conditions.

Water Balance and Groundwater Quality

The Study Area is located over a portion of Long Island's Sole Source Aquifer and part of a Central Pine Barrens Compatible Growth Area and Town CPBOD, the Town's APOD, the Central Suffolk SGPA, and portions of SCDHS Groundwater Management Zones III and IV. These resource area designations indicate the presence of important and potentially sensitive groundwater resources in respective delineated areas. It is therefore, imperative that the local groundwater reservoir be protected and that appropriate measures are taken to prevent resource degradation.

Common threats to groundwater quality from development include:

- increased wastewater that is discharged to the subsurface;
- increased stormwater that is discharged to the subsurface;
- application of fertilizers and pesticides;
- improper brownfield cleanup prior to redevelopment;
- poor or careless construction processes;
- improper use, storage and mishandling of hazardous materials by future land uses; and
- lack of public education and requirements for addressing pet wastes.

Increased sewer discharges – The increase in development density, particularly residential development will result in an overall increase in the volume of wastewater discharge in the area and will necessitate connection to an approved, monitored and maintained STP. The Proposed Action will necessitate the installation of sewer mains and connection to an approved STP that provides advanced/tertiary treatment to address nitrogen. Replacement of existing unsewered uses, with new form-based use that will connect to wastewater treatment has the potential to reduce the concentration of nitrogen in recharge within the Study Area and within the Central Pine Barrens. This reduction of nitrogen is considered an overall benefit as it will protect groundwater by dramatically reducing nitrogen discharge concentrations and will help to address concerns and recommendations of the Central Pine Barrens CLUP and Peconic Estuary

Comprehensive Management Plan. Wastewater discharges are subject to routine monitoring under the standards and requirements of a SPDES permit.

Increased stormwater that is discharged to the subsurface - The overall proportion of impervious surface in the Study Area will increase as part of the Theoretical Development Scenario under the proposed zoning amendments. The majority of existing uses within the Study Area were constructed prior to current stormwater management requirements. Stormwater management will require appropriately sized drainage storage/detention facilities and innovative measures using biofiltration will be employed where possible. Based on the NURP study, stormwater contaminants are attenuated in soil through leaching and detention facilities. Future development must be carried out in conformance with Town approved erosion and sedimentation control plans, SPDES permits, SWPPPs, wetlands permits, and other applicable standards, requirements, and professional recommendations during the site plan review process.

Application of fertilizers and pesticides – The Central Pine Barrens CLUP and Town APOD and CPBOD restrict the planting of fertilizer dependent landscaping and promote the retention of naturally vegetated areas. Not more than 15% of a site may be established in fertilizer dependent vegetation under the current CLUP and CPBOD standards. The purpose of this restriction is to prevent the need for excess site fertilization, pesticide/herbicide use and irrigation in areas that are revegetated, in order to prevent or reduce fertilization that can adversely affect groundwater nitrogen concentrations and impact on the surface waters. All proposed site use will conform with the 15% restriction, and landscaping will use native species which do not require fertilization, chemicals and irrigation to the maximum extent practicable.

Improper brownfield cleanup prior to redevelopment – A preliminary "Sites of Environmental Concern" inventory has been prepared and is part of the BOA Step II Nomination Study. Phase I Environmental Site Assessments (ESAs) should be conducted at locations slated for redevelopment to further identify any potential recognized environmental conditions (RECs) with Phase II ESAs performed as necessary. All floor drains, drywells, drainage catch basins and leaching pools, sanitary systems, sanitary leaching pools, cesspools and above and below ground fuel tanks must be identified, inspected, pumped/cleaned (as necessary) and removed or abandoned in accordance with applicable State and County regulations. Known areas of soil or localized groundwater contamination that exceed regulatory standards must be cleaned up prior to construction. The Proposed Action will promote the redevelopment of existing sites which will in turn facilitate Phase I ESAs, identification of RECs through Phase II ESAs, and ultimately will lead to improved conditions through cleanup of any identified issues prior to redevelopment.

Poor or careless construction processes - Groundwater quality impacts that may occur during construction activities could potentially result from leaching of contaminants entrained in rain falling on stockpiled demolition debris and building materials and equipment stored outdoors on development/redevelopment sites. Proper handling and prompt disposal of demolition debris at a licensed C&D facility is essential for these materials, while new building materials are anticipated to be relatively inert and therefore are not expected to have an adverse impact on the site. In addition, building materials would be present in such a condition for only a limited time before being used in construction, and would be stored under cover. Equipment stored on-site

which will be utilized during clearing and construction activities must be properly maintained to eliminate leakage of fluids and reputable contractors must be used for all site work.

Improper use, storage and mishandling of hazardous materials by future land uses – Based on the types of land uses that would be permitted by the proposed zoning, it is not expected that significant volumes of toxic or hazardous materials will be stored, nor will uses be promoted which would involve industrial processes or other forms of use that could cause contamination incidents. The Proposed Action will facilitate the cleanup of existing sites within redevelopment areas with reestablishment of residential and mixed use that conform to all applicable SCSC requirements under Articles 6, 7 and 12.

Lack of education and regulation of pet wastes – An estimated 2,267 residential units could be created under the Theoretical Development Scenario if the proposed zoning is adopted. If residents are permitted to have pets, a substantial amount of pet waste could be generated. If not picked up and properly disposed, pet waste could make its way into groundwater (not to mention surface waters and wetlands) and degrade water quality. Pet waste management practices will be promoted in connection with residential use and pick-up-after-your-pet courtesy bag stations will be provided in public space areas.

Public Water Supply - The 2015 SCWA data for the RSWD provided in **Appendix D-1** indicates that no significant impacts with respect to groundwater quality presently exist in the public water supply. The subject properties will be utilized primarily for residential and mixed-use development (office, retail and restaurant), institutional uses, and some limited light industrial use (Enterprise Zone Drive area); therefore, large scale toxic or hazardous chemicals are not expected to be used, handled, stored or disposed of in the Study Area. The nearest SCWA well field is 1.6 miles from the Study Area, and SCWA has an existing water supply distribution system in the area. New uses in conformance with the proposed zoning will require connection to an STP if density of use exceeds Article 6 allowable flow. Sewering of redevelopment areas will be necessary, thus providing advanced wastewater treatment. As such, the Proposed Action is not expected to result in any impacts to the public water supply through the use, generation or disposal of toxic substances or the uses that will occur based on the planned redevelopment.

Overall, in terms of water quality, the Proposed Action is expected to provide improved water resource management based on current technologies and existing land use requirements. All sanitary waste from new development in conformance with the Overlay Zones will be conveyed to an STP and therefore will not be recharged on-individual sites. The locations of any new or expanded STPs will have to be assessed to ensure that these facilities will not impact public or private water supplies. Fertilizer dependent vegetation will be restricted and natural areas will be retained to the maximum extent possible. Contamination exceeding Federal, State or County guidelines at existing brownfield sites will be remediated in accordance with State and local requirements prior to redevelopment. Construction activities and future drainage features will be constructed in accordance with State and local requirements. Moreover, the Study Area is not within 1,500 feet of a public supply well or within the groundwater contributing area of such wells and is therefore not expected to adversely affect existing public water supplies.

NP&V also has exclusive use of a groundwater nitrogen budget model that has been used extensively to determine the concentration of nitrogen in recharge as required by the CPBJPPC to determine conformance with the Nitrate-Nitrogen goal of 2.5 mg/l for projects that meet the definition of a DRS. This model was used to assess the concentration of nitrogen in recharge throughout the entire Study Area, as well as just within the Central Pine Barrens Nitrate-nitrogen goal of 2.5 mg/l (Guideline 5.3.3.1.3). As noted in Section 4.1.3, the existing concentration of nitrogen in recharge in the Study Area is estimated to be 4.58 mg/l, and the concentration within the Central Pine Barrens portion of the Study Area is 4.83 mg/l. The same methodologies outlined in the SONIR User Guide and use of the SONIR model was used to run the concentration of nitrogen in recharge based on the TDS and found that the project concentration is 4.12 mg/l for the overall Study Area, and 4.55 mg/l for the Central Pine Barrens area. In comparison, the concentration of nitrogen in recharge both the overall Study Area and the Central Pine Barrens was reduced from 4.58 to 4.12 mg/l and 4.83 to 4.55 mg/l, respectively. This indicates that the Proposed Action will reduce the concentration of nitrogen in recharge as compared to existing conditions. The applicable guidance value in the Central Pine Barrens CLUP is 2.5 mg/l; however, the proposed project will decrease the level of non-conformity by 0.28 mg/l. This provides greater compliance with Guideline 5.3.3.1.3 than the current condition. With respect to recharge, it is estimated that the recharge will increase from 474.07 MGY to 677.10 MGY within the overall Study Area, and 399.48 to 578.58 MGY within the Central Pine Barrens area. The SONIR User Guide is included as **Appendix D-2**, and the results are presented in **Appendices D-3**.

4.3 Mitigation Measures

- Compliance of future projects with the requirements of the Town's APOD and CPBOD and consistency with the Central Pine Barrens Comprehensive Land Use Plan, Long Island Comprehensive Special Groundwater Protection Area Plan, and Peconic Estuary Comprehensive Conservation and Management Plan.
- Future development exceeding SCDHS groundwater management density loading requirements under Article 6 of the SCSC must connect to an approved STP that provides advanced nitrogen treatment reduction capabilities;
- The siting of a new STP must be assessed further to ensure that the facility conforms with SCDHS and SCDPW requirements and that groundwater and surface waters are properly protected; SCDHS has prepared a study that will be considered as part of future wastewater planning and solutions (CDM Smith; H2M; and Bowne AE&T Group, 2013);
- Wastewater flow and water supply permitting is subject to SCDHS approval;
- Strict compliance with all SPDES effluent permit requirements for community wastewater treatment and disposal systems (STPs);
- Limiting landscaped areas that will require irrigation, fertilization and pesticide applications by retaining natural vegetation to the maximum extent possible and revegetating areas that have been disturbed during the construction process but will remain undeveloped with native or well-adapted non-invasive species;
- Limiting the number and extent of areas with nonnative, poorly adapted vegetative landscaping to reduce the need for fertilizers and pesticides. No more than 15 percent site may be planted with fertilizer dependent vegetation such as certain grasses;

- Water conservation fixtures for both indoor plumbing and any outdoor irrigation to help reduce water consumption and wastewater generation and adherence to the proposed Sustainable Development Standards for reducing impacts to water outlined under Section 410 J. of the Proposed Code Amendments;
- Strictly observing all SPDES permit requirements for soil disturbance as well as the approved NYSDEC SWPPP; and
- Using stormwater collection and treatment devices that comply with minimum State and Town engineering standards and practices and which meet the approval of the Town Engineer and Planning Board; stormwater controls must also be consistent with Town/NYSDEC approved SPDES stormwater permits, SWPPPs, and Federal, State, and/or Town wetlands permits as applicable.
- Incorporation of vegetated swales, filter strips, rain gardens, other green infrastructure, and state-of-the-art treatment technologies and best management practices (BMPs); examples of BMPs are provided in the New York State Stormwater Management Design Manual.
- Green infrastructure practices that reduce coliform loads to the river will be incorporated into site design, particularly for those uses in closest proximity to the river which will have the greatest chance of direct input.
- Covenants and restrictions should be required for all multifamily residential developments to ensure the pickup and proper disposal of pet waste by tenants. Dedicated waste receptacles should be installed by the developer and public spaces should provide pick-up-after-your-pet dispensers.
- Future developments within the Central Pine Barrens Compatible Growth Area must be found to conformance to Articles 7 and 12 of the SCSC;
- Precautions will be taken to ensure sediment will not be transported off-site by stormwater runoff and as a result there is no expected impact to local wetlands or surface waters as a result of erosion and sedimentation control measures and permit compliance that will be implemented during construction activities.
- A SWPPP(s) will be prepared as required to ensure compliance with water quality and quantity requirements pursuant to Technical Guidance and GP 0-10-001 and Town of Southampton requirements. In addition, an erosion control plan will be prepared incorporating the NYSDEC Guidelines for Urban Erosion and Sediment Control.

5.0 ECOLOGICAL RESOURCES

5.1 Existing Conditions

Vegetation, Wildlife & Habitats

The Riverside Study Area is mostly comprised of suburban and commercial development; some vacant and undisturbed lands remain. Lands that are vacant fall into one of the following four categories: freshwater wetlands, tidal wetlands, preserved lands, or vacant lands surrounded by development. Preserved lands and other areas of vacant woodland are provided in **Figure 3-1**. NYS regulated freshwater and tidal wetlands are depicted on **Figure 4-2** while wetlands included in the National Wetlands Inventory are depicted in **Figure 4-3**. A general map of natural habitats located within the Study Area is provided in **Figure 5-1**.

Upland communities found within the study area are generally comprised of Pitch Pine-Oak forest, Successional Southern Hardwood forest, Maritime Oak Forest, Successional Shrubland, Maritime Heathland and Successional Old Field (**Edinger et al, 2014**). Pitch Pine-Oak forests are defined by **Edinger et al** (2014) as mixed forests that occur on well-drained sandy soils, where pitch pine and one or more of the following oaks are dominant: scarlet oak, white oak, red oak or black oak. This community is found in areas south of Flanders Road where recent disturbance has not occurred. Successional habitats (areas that have revegetated following disturbance) represent areas that have been disturbed within the last 50 years, and are interspersed throughout the Study Area. The Sarnoff Preserve, located in the southwest portion of the study area, is comprised of Pitch Pine-Oak forest, Successional Old Field, and freshwater wetlands habitats. The preserve adjoins a vacant parcel of land that is comprised of Pitch Pine-Oak forest. Two other large parcels of Pitch Pine-Oak forest remain which consist of a narrow parcel of vacant woodland located in the central portion of the study area and portions of the industrial subdivision that remain undeveloped.

Deciduous forest is the primary community located in the upland portion of the area north of Flanders Road. It is surmised that this forested area is a remnant of a Maritime Oak forest. Maritime Oak forests are defined as "*an oak-dominated forest that borders salt marshes or occurs on exposed bluffs and sand spits within about 200 meters of the seacoast*" (**Edinger, et al., 2014**). Limited inspections of this area revealed highly disturbed woodland. The woodland was primarily comprised of invasive species (Norway maple, tree of heaven), however, remnant oaks were visible within the forested area. Due to access limitations, the area depicted as Maritime Heathland is surmised from aerial photography. All other upland habitats within the study area are either successional in nature or are landscaped and impervious areas associated with suburban development.

Freshwater wetlands are important ecological communities. These habitats are generally more productive than upland habitats, and are typically high in both plant and animal diversity. Wetlands are also vital in controlling floodwaters and filtering pollutants, and are valuable as recreation areas and as refugia for rare species. As the intrinsic value of wetlands has become recognized, they have received increasing protection from Federal, State, and local regulations and are often prioritized for public acquisition and preservation. Wetland boundaries are

generally defined by the presence of significant numbers of indicator plant species which are typical of flooded or waterlogged soils.

The NYSDEC has identified five freshwater wetland complexes within or partially within the Riverside Study Area. These areas comprise approximately 2,413 acres of wetland systems, 15.60 acres of which are located within the Study Area (**Table 5-1**). These freshwater wetlands are all catalogued by the NYSDEC on the Riverhead United States Geological Survey (USGS) 7.5-minute quadrangle and are illustrated in **Figure 4-2**. NYSDEC classifies freshwater wetlands into four categories, which are described in Section 664.5 of the NYSDEC regulations. Class I wetlands are considered the most pristine and therefore the most valuable, while Class IV wetlands lack characteristics which would give the wetland a high value. Only Class I and Class II wetlands are located within the Study Area, the definitions of which, as provided by the NYSDEC, are listed below.

Table 5-1
NYSDEC FRESHWATER WETLANDS WITHIN THE STUDY AREA

NYSDEC Freshwater Wetland ID	**Wetland Class**	**Wetland Area** (Acres)	**Wetland Area within Study Area** (Acres)
R-5	1	2,331.5	5.6
R-11	1	52.3	0.3
R-71	2	4.4	2.7
R-72	1	21.1	4.5
R-81	1	3.4	2.5
Totals		**2,412.7**	**15.6**

Class I wetlands:
A wetland shall be a Class I wetland if it has any of the following seven enumerated characteristics:
Ecological associations
(1) it is a classic kettlehole bog
Special features
(2) it is resident habitat of an endangered or threatened animal species
(3) it contains an endangered or threatened plant species
(4) it supports an animal species in abundance or diversity unusual for the state or for the major region of the state in which it is found
Hydrological and pollution control features
(5) it is tributary to a body of water which could subject a substantially developed area to significant damage from flooding or from additional flooding should the wetland be modified, filled, or drained
(6) it is adjacent or contiguous to a reservoir or other body of water that is used primarily for public water supply, or it is hydraulically connected to an aquifer which is used for public water supply or
Other

(7) it contains four or more of the enumerated Class II characteristics. The department may, however, determine that some of the characteristics are duplicative of each other, therefore do not indicate enhanced benefits, and so do not warrant Class I classification.

Class II wetlands:
A wetland shall be a Class II wetland if it has any of the following seventeen enumerated characteristics:
Covertype
(1) it is an emergent marsh in which purple loosestrife and/or reed (*Phragmites*) constitutes less than two-thirds of the covertype
Ecological association
(2) it contains two or more wetland structural groups
(3) it is contiguous to a tidal wetland
(4) it is associated with permanent open water outside the wetland
(5) it is adjacent or contiguous to streams classified C(t) or higher under article 15 of the environmental conservation law
Special features
(6) it is traditional migration habitat of an endangered or threatened animal species
(7) it is resident habitat of an animal species vulnerable in the state
(8) it contains a plant species vulnerable in the state
(9) it supports an animal species in abundance or diversity unusual for the county in which it is found
(10) it has demonstrable archaeological or paleontological significance as a wetland
(11) it contains, is part of, owes its existence to, or is ecologically associated with, an unusual geological feature which is an excellent representation of its type
Hydrological and pollution control features
(12) it is tributary to a body of water which could subject a lightly developed area, an area used for growing crops for harvest, or an area planned for development by a local planning authority, to significant damage from flooding or from additional flooding should the wetland be modified, filled, or drained
(13) it is hydraulically connected to an aquifer which has been identified by a government agency as a potentially useful water supply
(14) it acts in a tertiary treatment capacity for a sewage disposal system
Distribution and location
(15) it is within an urbanized area
(16) it is one of the three largest wetlands within a city, town, or New York City borough or
(17) it is within a publicly owned recreation area.

As indicated in **Table 5-1** above, the majority of the freshwater wetlands within the Study Area are Class I, indicating generally good habitat quality of these wetlands. While only one wetland within the Study Area is Class II, this wetlands still provide important habitat for local wildlife. It is also noted that additional wetland areas regulated by the Town may be present within the Study Area; however, these areas are not mapped and site specific investigations would be required. In general, the Town regulated freshwater wetland areas are defined in Section 325-3 of Town Code, which includes areas that contain a predominance of hydrophytic vegetation (i.e., plants that rely on saturation for growth and propagation).

NYSDEC tidal wetlands located along the shoreline of the Study Area east of the Peconic Avenue bridge, include High Marsh (HM), Intertidal Marsh (IM), Dredge Spoil (DS) and Littoral

Zone (LZ). The tidal wetlands within the Study Area are located where the shoreline intersects and interfaces with tidal waters. These wetlands contain saline waters, which originate from the ocean-fed surface waters associated with Peconic Bay. These features are formed by coastal processes and, with the exception of formerly connected tidal wetlands, are subject to tidal influence. These areas are not only vital to the ecological systems to which they serve, but also function to control storm surges during flood and major storm events which may impact sensitive watershed areas. The NYSDEC maintains a series of tidal wetlands maps which document the location and type of tidal wetlands within New York State and includes a complete inventory for the Study Area. Tidal wetlands within the Study Area are illustrated in **Figure 4-2**. The NYSDEC classifies tidal wetlands into fourteen distinct categories. Definitions for those categories present within the Study Area are provided below.

> **LZ - Littoral Zone:** The tidal wetland zone that includes all lands under tidal waters which are not included in any other category. There shall be no LZ under waters deeper than six feet at mean low water.
>
> **IM - Intertidal Marsh:** The vegetated tidal wetland zone lying generally between average high and low tidal elevation in saline waters. The predominant vegetation in this zone is low marsh cord grass, *Spartina alterniflora*.
>
> **HM - High Marsh:** The normal upper most tidal wetland zone usually dominated by salt meadow grass, *Spartina patens*; and spike grass, *Distichlis spicata*. This zone is periodically flooded by spring and storm tides and is often vegetated by low vigor, *Spartina alterniflora* and Seaside lavender, *Limonium carolinianum*. Upper limits of this zone often include black grass, *Juncus gerardi*; chairmaker's rush, *Scirpus sp.*; marsh elder, *Iva frutescens*; and groundsel bush, *Baccharis halimifolia*.
>
> **DS - Dredged Spoil** All areas of fill material.

The majority of the tidal wetlands within the study area are comprised of Littoral Zone and High Marsh. A significant area of Dredged Spoil is located in the northeastern portion of the Study Area, north of Donald Avenue. Limited areas of intertidal marsh are found between areas of High Marsh and the Littoral Zone. It is noted that the Town also regulates tidal wetlands. As defined in Section 325-3 of the Town Code, the vegetated definition of tidal wetlands is the same as that of the NYSDEC; therefore, the tidal wetland boundary is the same for each regulatory agency.

That National Wetlands Inventory categorizes wetlands regardless of their size and regulatory status. As illustrated on **Figure 4-3**, the wetlands with the Study Area are characterized as "Estuarine" north of C.R. 24, indicating that these wetlands are tidally influenced, while wetlands south of C.R. 24 are characterized as "Palustrine," indicating these wetlands are freshwater in nature. Vegetation within Estuarine wetlands would consist of that adapted to tidal wetland environments, while freshwater wetland vegetation would generally be comprised of plants that have a lower salt tolerance.

Table 5-2 below provides an estimation of the habitats found within the study area. It should be noted that the habitat delineations depicted are general in nature and should be utilized as a

general guide only. Site specific investigations would be necessary to determine the habitats present at a particular site.

Table 5-2
ESTIMATED EXISTING HABITAT COVERAGES

Habitat Type	Area (Acres)	Percent of Study Area (±467.5 Acres)
Pitch Pine-Oak Forest	±101.5	~22%
Maritime Oak Forest/ Successional Southern Hardwood Forest	±32.4	~7%
Successional Shrubland	±0.7	~0.1%
Maritime Heathland	±3.7	~0.8%
Successional Old Field	±5.9	~1%
Freshwater Wetlands	±12.6	~3%
Tidal Wetlands	±7.0	~1%
Subtotal	**163.8**	**~34.9%**
Suburban	303.7	~65.1%
TOTAL	**467.5**	**100.0%**

Wildlife within the majority of the Study Area is anticipated to consist of species that are adapted to suburban habitats, such as raccoons, squirrels, deer, rabbits, robins, mocking birds, grackles and starlings. The exception to this assumption is areas of forested upland, vegetated tidal wetlands, and freshwater wetlands, where a greater diversity of wildlife may inhabit, including interior forest birds, salamanders, shore birds, turtles, bivalves, and reptiles adapted for living in wetland habitats.

The New York Natural Heritage Program (NYNHP) contacted to determine the presence/absence of rare, threatened endangered species or significant natural communities within the Study Area. As indicated in the response from the NYNHP included in **Appendix F-1**, six significant natural communities are located within or adjacent to the study area. The communities identified include:

- Red Maple-Blackgum Swamp
- Coastal Plain Atlantic White Cedar Swamp
- Coastal Plain Poor Fen
- Coastal Plain Pond Shore
- Pitch Pine-Oak-Heath Woodland
- Pitch Pine-Oak Forest

As illustrated in **Figure 5-1**, only Pitch Pine-Oak forest is located within the study area; the remaining communities are located adjacent to the study area. Pitch Pine-Oak forest is characterized by **Edinger, et. Al.** (**2014**) as *"a mixed forest that typically occurs on well-drained, sandy soils of glacial outwash plains or moraines; it also occurs on thin, rocky soils of ridgetops. The dominant trees are pitch pine (Pinus rigida) mixed with one or more of the following oaks: scarlet oak (Quercus coccinea), white oak (Q. alba), red oak (Q. rubra), or black oak (Q.*

velutina). The relative proportions of pines and oaks are quite variable within this community type." The Pitch Pine-Oak forest identified within the Study Area, known as the Riverhead Pine Barrens, is described by the NYNHP as being a High-quality occurrence of this community type due to its size, low presence of invasive species and its successful recovery from past disturbances. It is noted that this community type is located in areas that are either preserved or precluded from further development due to CPBJPCC clearing restrictions.

The NYNHP has also identified a number of rare, threatened or endangered plants and wildlife within or in the vicinity of the Study Area. Species identified include one endangered amphibian, one endangered butterfly, one threatened damselfly, one threatened fish, two special concern damselflies, two special concern moths, two unlisted damselflies six unlisted moths, fifteen endangered plants, and fifteen threatened plants. The following table indicates the species identified, its legal status, its identification status (i.e., is it a current identification or a historical identification) and the habitat the species is typically found in.

Table 5-3
RARE, THREATENED OR ENDANGERED SPECIES IDENTIFIED BY THE NYNHP

General Habitat Type		Species Type	NYS Legal Status (Endangered, Threatened, Rare, Special Concern)	Current or Historic
GRASSLAND/HEATH/OPEN AREAS			--	--
Species Common Name	**Species Scientific Name**		--	--
Stargrass	*Aletris farinose*	Plant	Threatened	Historic
Great Plains Flatsedge	*Cyperus lupulinus ssp. lupulinus*	Plant	Threatened	Historic
American ipecac	*Euphorbia ipecacuanhae*	Plant	Endangered	Historic
Virginia False Gromwell	*Onosmodium virginianum*	Plant	Endangered	Historic
Few-flowered Nutrush	*Scleria pauciflora var. caroliniana*	Plant	Endangered	Historic
Southern Arrowwood	*Viburnum dentatum var. venosum*	Plant	Threatened	Historic
Northern Blazing-star	*Liatris scariosa var. novae-angliae*	Plant	Threatened	Historic
FRESHWATER WETLAND			--	--
Species Common Name	**Species Scientific Name**		--	--
Doll's Merolonche	*Acronicta dolli*	Moth	Unlisted	Historic
Pitcher Plan Borer Moth	*Papaipema appassionata*	Moth	Unlisted	Current
Dragon's Mouth Orchid	*Arethusa bulbosa*	Plant	Threatened	Historic
Atlantic White Cedar	*Chamaecyparis thyoides*	Plant	Threatened	Current
Weak Rush	*Juncus debilis*	Plant	Endangered	Historic

Swamp Oats	*Sphenopholis pensylvanica*	Plant	Endangered	Historic
Possum-haw	*Viburnum nudum var. nudum*	Plant	Endangered	Historic
Large Yellow-eyed-grass	*Xyris smalliana*	Plant	Threatened	Current
FRESHWATER WETLAND SHORELINE/OPEN AREAS		--	--	--
Species Common Name	**Species Scientific Name**	--	--	--
Hessel's Hairstreak	*Callophrys hesseli*	Butterfly	Endangered	Current
Short-fruit Rush	*Juncus brachycarpus*	Plant	Endangered	Historic
Swamp Smartweed	*Persicaria setacea*	Plant	Endangered	Historic
Drowned Beakrush	*Rhynchospora inundata*	Plant	Threatened	Current
Heart Sorrel	*Rumex hastatulus*	Plant	Endangered	Historic
Coastal Goldenrod	*Solidago latissimifolia*	Plant	Endangered	Historic
Rush Bladderwort	*Utricularia juncea*	Plant	Endangered	Current
Fibrous Bladderwort	*Utricularia striata*	Plant	Threatened	Current
FRESHWATER WATERBODY		--	--	--
Species Common Name	**Species Scientific Name**	--	--	--
New England Bluet	*Enallagma laterale*	Damselfly	Unlisted	Current
Scarlet Bluet	*Enallagma pictum*	Damselfly	Threatened	Current
Blackwater Bluet	*Enallagma weewa*	Damselfly	Unlisted	Current
Banded Sunfish	*Enneacanthus obesus*	Fish	Threatened	Current
Southern Sprite	*Nehalennia integricolli*	Damselfly	Special Concern	Current
Knotted Spikerush	*Eleocharis equisetoides*	Plant	Threatened	Current
Northern Dwarf Huckleberry	*Gaylussacia bigeloviana*	Plant	Endangered	Historic
Pale Duckweed	*Lemna valdiviana*	Plant	Endangered	Historic
Spotted Pondweed	*Potamogeton pulcher*	Plant	Threatened	Historic
FRESHWATER WATERBODY/DRY WOODLANDS		--	--	--
Species Common Name	**Species Scientific Name**	--	--	--
Eastern Tiger Salamander	*Ambystoma tigrinum*	Amphibian	Endangered	Current
DRY WOODLANDS		--	--	--
Species Common Name	**Species Scientific Name**	--	--	--
Packard's Lichen Moth	*Cisthene packardii*	Moth	Unlisted	Current
Small White Snakeroot	*Ageratina aromatica var. aromatica*	Plant	Endangered	Historic
PINE OAK FOREST/ACIDIC SOIL FOREST		--	--	--
Species Common Name	**Species Scientific Name**	--	--	--
Herodias or Pine Barrens Underwing	*Catocala Herodias gerhardi*	Moth	Special Concern	Current
Eastern Pinebarrens	*Cicindela abdominalis*	Beetle	Unlisted	Historic

Tiger Beetle				
New Jersey Pine Barrens tiger Beetle	*Cicindela patruela consentanea*	Beetle	Unlisted	Historic
Coastal Barrens Buckmoth	*Hemileuca maia ssp. 5*	Moth	Special Concern	Current
Richard's Fungus Moth	*Metalectra richardsi*	Moth	Unlisted	Current
Pink Sallow	*Psectraglaea carnosa*	Moth	Unlisted	Current
Golden Aster Flower Moth	*Schinia tuberculum*	Moth	Unlisted	Historic
TIDAL SHORELINE/OPEN AREAS		--	--	--
Species Common Name	**Species Scientific Name**	--	--	--
Swamp Sunflower	*Helianthus angustifolius*	Plant	Threatened	Historic
TIDAL WETLANDS		--		
Species Common Name	**Species Scientific Name**	--	--	--
Screw-stem	*Bartonia paniculata ssp. Paniculata*	Plant	Endangered	Historic
Marsh Straw Sedge	*Carex hormathodes*	Plant	Threatened	Historic
Marsh Fimbry	*Fimbristylis castanea*	Plant	Threatened	Historic
Sea-pink	*Sabatia stellaris*	Plant	Threatened	Historic

It is noted that the eastern tiger salamander has been identified as occurring within a half mile of the study area. The tiger salamander is a mole salamander and spends much of its adult life underground, but requires vernal pools or shallow ponds without fish populations to breed and lay their eggs, as well as expansive moist upland woodlands for the emerged adults. Breeding season occurs in late winter and early spring, when migrations to the breeding pond are prompted by the first warm rains. Adults remain in the ponds for only a few weeks before returning underground (**Cryan, 1984**). The eggs hatch after three to four weeks, and the larvae remain in the pond until early summer before metamorphosis to the adult stage. Although most adults remain in close proximity to the breeding pond, some individuals may migrate a significant distance following metamorphosis from the larval stage. Adults typically stay within a 500-foot radius of their breeding ponds and therefore, the fate of this endangered species rests on the preservation of their breeding ponds and adjacent woodland habitat. Correspondence with the NYSDEC indicates that there are no documented breeding ponds within 1,000 feet of the Study Area; however, there are ponds in proximity to the Study Area that represent suitable habitat that have not been surveyed. The NYSDEC has recommended surveys of these ponds prior to work being conducted within 1,000 feet of the ponds to determine presence/absence of the species.

Figure 5-2 also depicts NYS Significant Coastal Fish & Wildlife Habitats (SCF&WH) located in the vicinity of the Study Area. The Peconic River and Cranberry Bog County Park SCF&WH are the only ones located along the Study Area shoreline. NYS prepares a Coastal Habitat Assessment analysis to determine as to whether or not a habitat complex should be included as a SCF&WH, a copy of which is provided in **Appendix F-2**. A summary of why these habitats were designated as significant by NYS is as follows:

Peconic River

- Ecosystem Rarity: The longest river on Long Island; the Peconic is a relatively large, slow moving, acidic river with a very undeveloped watershed. Unique on Long Island.
- Species Vulnerability: SV assessment: Tiger salamander (Endangered), banded sunfish (Threatened), eastern spadefoot toad (Special Concern), eastern hognose snake (Special Concern), spotted turtle (Special Concern), southern sprite damselfly (Threatened), coastal barrens buckmoth (Special Concern), painted bluet (Threatened), and pine barrens bluet (Threatened) present.
- Human Use: Recreational fishing for warm water species attracts anglers from throughout Long Island.
- Population Level: One of only 2 locations in the state supporting banded sunfish. One of only 4 major documented alewife spawning areas in Peconics region.
- Replacaebility: The habitat in Peconic River is irreplaceable.

Cranberry Bog County Park

- Ecosystem Rarity: The largest remaining coastal plain Atlantic white cedar swamp plant community in New York.
- Species Vulnerability: Spotted turtle (Special Concern), swamp darter (Threatened), and banded sunfish (Threatened) utilize the area.
- Human Use: No significant fish or wildlife related human uses of the area.
- Population Level: Banded sunfish (Enneacanthus obesus) population unusual in New York State.
- Replacaebility: The habitat in Peconic River is irreplaceable.

Regulatory Conditions

As previously indicated, both freshwater and tidal wetlands exist within the boundaries of the village. Future improvements subsequent to the adoption of the proposed Overlay District may fall under the jurisdiction of the State (Articles 24 and 25 as described below), and Federal wetlands and coastal regulations. The NYSDEC regulates activities within freshwater wetlands through Article 24 and tidal wetland areas through Article 25. NYSDEC freshwater wetland jurisdiction extends 100 feet from the vegetated wetland boundary, while tidal wetland jurisdiction extends 300 feet from the wetlands boundary unless the intervening area is less than elevation 10 or there is a road or other barrier (**NYSDEC 1992**). Existing bulkheads are located along the seaward perimeters of several properties northeast of the CR 24 traffic circle and along a property east of the Town owned parcel on the north side of Flanders Road and west of the Parkview mobile home community. NYSDEC does not have tidal wetlands jurisdiction on properties with functional bulkheads built and maintained since prior to the adoption of Article 25 (1977). A map depicting the approximate locations of both NYSDEC Article 24 and Article 25 wetland limits and approximate regulated adjacent areas is provided as **Figure 5-3**.

Both the Army Corp of Engineers (ACOE) and the NYSDOS regulate coastal areas. "Section 10 of the Rivers and Harbors Act of 1899 requires approval prior to the accomplishment of any work in or over navigable waters of the United States, or which affects the course, location, condition or capacity of such waters (**ACOE**)." Permits obtained from the ACOE include either

Nationwide Permits, which provide a permit for common activities, or an individual permit, which is for activities which are not listed under a Nationwide Permit.

In conjunction with the ACOE review, the NYSDOS reviews a proposed project to determine if the project is compatible with the NYSDOS' Coastal Management Program (CMP). "The federal Coastal Zone Management Act (CZMA) requires that each Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs (**NYSDOS**)." Concurrence regarding the consistency of any regulated projects with Coastal Management Policies would need to be obtained from the NYSDOS.

The Town regulates both freshwater and tidal wetlands through Section 325 of Town Code. Town jurisdictional limits for areas in proximity to wetlands varies depending on the shoreline type present, the previous disturbance on the property, and the type of project present. Generally, if a functional bulkhead or revetment is located on a property that has been in existence since prior to August 1993, the Town's jurisdictional limit extends 50 feet from the shoreline structure. Activities in proximity to natural shorelines are regulated within a minimum of 75 feet of the wetland boundary, and may extend to 175 feet, depending on the project type, existing site conditions and project location.

The NYSDEC also regulates rare, threatened and endangered wildlife through Article 11 of the ECL. 6 NYCRR Part 182.8(a) indicates "No person shall take or engage in any activity that is likely to result in a take of any species listed as endangered or threatened in this Part, except as authorized by an incidental take permit issued by the department pursuant to this Part or as otherwise authorized as an exempt activity in section 182.13 of this Part." As indicated by the NYNHP, several threatened and endangered wildlife species are located in the vicinity of the Study Area. As a result, disturbance to sites that contain or may affect habitat of the endangered or threatened wildlife species would be subject to regulation under Article 11 of the ECL.

5.2 Potential Impacts

It is important to note that adoption of the proposed Overlay District will not result in any immediate impacts to vegetation and wildlife. However, future development under the proposed Overlay District could potentially impact vegetation and wildlife. For analysis purposes, the potential impacts of the Theoretical Development Scenario are evaluated herein. **Table 5-4** below provides a comparison of habitats within the Study Area between the existing conditions and under the Theoretical Development Scenario.

Table 5-4
STUDY AREA HABITATS – EXISTING CONDITIONS VS. THEORETICAL DEVELOPMENT SCENARIO

Habitat Type	Existing Conditions		Theoretical Development Scenario		Change (Acres)
	Area (Acres)	Percent of Study Area (±468 Acres)	Area (Acres)	Percent of Study Area (±468 Acres)	
Pitch Pine-Oak Forest	±101.5	~22%	±80.5	~17%	-21.0
Maritime Oak Forest/ Successional Southern Hardwood Forest	±32.4	~7%	±25.9	~6%	-6.5
Successional Shrubland	±0.7	~0.1%	0	0	-0.7
Maritime Heathland	±3.7	~0.8%	±3.7	~0.8%	0
Successional Old Field	±5.9	~1%	±1.7	~0.4%	-4.2
Freshwater Wetlands	±12.6	~3%	±12.6	~3%	0
Tidal Wetlands	±7.0	~1%	±7.0	~1%	0
Subtotal	**163.8**	**~34.9%**	**±131.4**	**~28.1%**	**-32.4**
Suburban	303.7	~65.1%	±336.1	~71.9%	+32.4
TOTAL	**467.5**	**100.0%**	**467.5**	**100.0%**	**---**

As illustrated above, a total of approximately 32.4 acres of existing natural habitats will be removed under the Theoretical Development Scenario. The majority of this area is located within the central portion of the Study Area, and is comprised of Pitch Pine-Oak forest. A portion of existing woodland north of Flanders Road is anticipated to be removed under the Theoretical Development Scenario for the creation of a mixed use development with associated parking and a waterfront hotel (±6.5 acres).

In general, impacts on wetlands associated with the Proposed Action, including adoption of the RRAP and the Overlay Districts are anticipated to be minimal as current SCDHS, State and Federal regulations prohibit development within vegetated wetlands. Additionally, the RRAP establishes goals for wetland restoration and public education programs aimed at educating the public on the beneficial qualities of wetlands. The mixed use development on the waterfront parcels north of SR 24 under the Theoretical Development Program contemplates the creation of boardwalks along and in proximity to the shoreline to provide public pedestrian access to the waterfront. In some areas, these boardwalks will be located along the shoreline, while in other areas walkways perpendicular to the shoreline will be installed with viewing platforms located at the end of the walkway (see illustration, **Figure 2-4**). The latter option is anticipated to occur in the areas where existing natural shoreline exists, while the former will be located in areas of existing bulkhead and hardened shoreline in order to minimize impacts to existing vegetated wetlands.

Development within the regulated adjacent area of each wetland will be governed through appropriate regulatory review at which time appropriate protective measures for the wetlands will be determined. Delineation of the flagged wetland boundary within the vicinity of each

wetland area will be necessary to determine the exact location of the wetland boundary, and the quality of habitat within the wetland adjacent area.

Under the Theoretical Development Scenario, it is likely that a variance will be required from the NYSDEC for development with the regulated adjacent area for the waterfront parcels north of SR 24. **Section 5.1** details the applicable State, Federal and Town regulations that would impact development abilities within or adjacent to wetlands. Development of any parcel within the State regulated adjacent area for freshwater or tidal wetlands would require a permit from the NYSDEC. Generally, development within 100 feet of freshwater wetlands is prohibited by the NYSDEC, except where previous development exits. Development within tidal wetland adjacent areas require a 75 foot setback from the tidal wetlands boundary for all structures, while drainage structures and sanitary systems require a 100 foot setback. NYSDEC tidal wetlands regulations also permit a maximum of 20 percent impervious surfaces within the adjacent area. Any discharges to surface waters are required to have upland detention for a five year storm event prior to overflow. If these parameters cannot be met during development, a variance from the NYSDEC will be required, and mitigation for the development components that exceed DEC standards may need to be incorporated into project design. Mitigation for any proposed variance from NYSDEC setback or coverage requirements may involve activities such as shoreline restoration, invasive species control, wetland restoration within dredge spoil impacted areas within and immediately adjacent to the Study Area, stormwater improvements, etc.

Improvements below spring high water or within non-state regulated wetland areas would also require a permit from the ACOE and NYSDOS. As wetland areas will not be developed (with the exception of boardwalks for pedestrian access/viewing) it is anticipated that coverage under a Nationwide Permit will be required from the ACOE and an individual permit will not be required. Additionally, a Coastal Consistency determination may be required from the NYSDOS depending upon the project and Nationwide Permit that applies to the particular project.

Finally, a wetlands permit will be required from the Town for proposed activities within 50 feet of a hardened shoreline and activities located within 75 feet of the wetland boundary, and up to within 175 feet of the wetland boundary, depending on the project scope and site specific conditions. Should a project design not meet the Town's requirements for development with the regulated area, a variance from Town Code may be required. Such a determination will need to be made on a project specific basis.

The remainder of the area that may be developed under the Theoretical Development Scenario is located south of Flanders Road (SR 24). Habitat to be removed associated with this development includes Pitch Pine-Oak forest (±21 acres), Successional Shrubland (±0.7 acres) and Successional Old Field (±4.2 acres). The habitats within the development area are generally compromised due to disturbance associated with human activities and the presence and prevalence of invasive species. The undeveloped areas within the Enterprise Park and the parcel owned by Country Limousine Service, Inc. are the exceptions to the area in terms of habitat quality, as these areas have been largely undisturbed and represent higher quality forest than that of the remainder of the Study Area. As a result, impacts associated with development of the lower quality areas of vegetation are anticipated to be minimal due to the lack of habitat value provided by these areas. It is acknowledged that impacts to habitats of higher quality may occur

as a result of the proposed development. **Sections 6.2, 6.3 and Appendix G** address compliance with clearing restrictions associated with the Central Pine Barrens Area (see **Figure 6-3**) and the suggested measures to limit clearing of areas of higher quality habitat, as well as suggested forms of mitigation.

It is noted that addressing clearing limitations for the overall ROD, rather than a parcel by parcel basis, provides increased opportunity to preserve contiguous areas of open space in a comprehensive manor. Development under the existing zoning would regulate a clearing on individual lots, many of which are small lots with fragments of remaining vegetation. Establishing an approach for clearing limits within the overall ROD provides opportunities to preserve vegetation and habitats adjacent to the large preserved lands surrounding the Study Area, as well as establish more meaningful wildlife corridors between parcels.

Impacts on local wildlife may occur due to clearing of parcels, resulting in the temporary or permanent displacement of wildlife in that area. As indicated in **Section 5.1**, as the Study Area is largely developed, wildlife anticipated to utilize the area would be adapted to suburban environments. As such, wildlife utilizing the vacant wooded areas within the Study Area would be anticipated to be able to adapt to the suburban environment or relocate to natural areas outside of the Study Area. It is noted that the Study Area is surrounded to the south and southeast by thousands of acres of high quality habitat in the form of woodlands, ponds, streams, creeks, and wetlands which have already been acquired by the Town, County, State, and private land preservation groups and been dedicated for open space preservation. These off-site areas are provide significant opportunity for wildlife relocations. As a result, impacts to wildlife as a result of the proposed Theoretical Development Scenario are anticipated to be minimal.

As described in **Section 5.1**, six significant natural communities and 47 rare, threatened or endangered plants or animals are located within or in proximity to the Study Area. While site specific surveys have not been conducted for each species for the purpose of the Draft GEIS, it is assumed that the Theoretical Development Scenario may have the potential for impact on the species identified by the NYNHP. As indicated in **Section 5.3** below, mitigation may be required if species are identified on a particular development parcel to avoid, minimize or mitigate the impact from development within or in proximity to rare, threatened or endangered species. It is further noted that if it is determined that impacts to threatened or endangered wildlife may occur, an Article 11 permit from the NYSDEC may be required, which is discussed in further detail below.

Regulatory implications for development of a site that contains or is within proximity to a threatened or endangered wildlife species may require an Article 11 permit from the NYSDEC. Species potentially located in proximity to the Development Area include the Eastern tiger salamander, Hessel's hairstreak, Scarlet Bluet and Banded Sunfish. As all of the above species require freshwater wetland habitat at some point during their life cycle, development within proximity to freshwater wetlands would be required to further evaluate project impacts on each species. If species are present within a particular site, avoidance through project redesign or species specific mitigation measures may be required.

In particular, while positive identification of the species has not been recorded, potentially suitable habitat for tiger salamander may exist in the form of the existing ponds exist within 1,000 feet of the Study Area. **Figure 5-3** illustrates the approximate 1,000 foot radius from wetlands in the vicinity of the Study Area. Development the radii identified on the map would require further investigation into the presence/absence of the species. If the species is present, mitigation measures may be required and are identified in **Section 5.3** below.

5.3 Mitigation

- Delineation of the flagged wetland boundary within the vicinity of each wetland area will be necessary to determine the exact location of the wetland boundary, and the quality of habitat within the wetland adjacent area. Development within the regulated adjacent area of each wetland will be governed through appropriate regulatory review at which time appropriate protective measures for the wetlands will be determined.
- Should a project require a variance from NYSDEC Article 24 or Article 25 wetland regulations or Town wetland regulations, mitigation for project impacts will be required. Mitigation measures that may be offered in support of a variance application include:
    - Wetland creation
    - Wetland restoration
    - Invasive species removal
    - Improvements to existing drainage systems which currently contribute to poor water quality
    - Improvements to existing sanitary systems which currently contribute to poor water quality.
- Revegetation and restoration of currently degraded and unutilized land may be required for the loss of quality natural habitat to be developed under the Theoretical Development Scenario.
- If threatened or endangered wildlife are encountered on a project site, site specific mitigation measures will need to be developed and an Article 11 Incidental Take Permit or Letter of Non-Jurisdiction will be necessary from the NYSDEC.
- Development within proximity to a potential tiger salamander breeding pond would require pond and/or upland habitat surveys to determine the presence/absence of the species. Should the presence of the species be confirmed, the appropriate mitigation measures would need to be considered during site design, which would include preservation of habitat, installation of barrier curbing or flashing to prevent salamanders from entering into a developed area, provisions to address lighting, stormwater runoff and management plans for both the pond and preserved upland habitat.

6.0 CRITICAL ENVIRONMENTAL AREAS AND OTHER REGULATED ENVIRONMENTAL DISTRICTS AND ENVIRONMENTAL PLANS

6.1 Existing Conditions

6.1.1 Critical Environmental Areas

The portion of the Study Area located south of SR 24 is situated within a Central Pine Barrens Compatible Growth Area (CGA) and the Proposed Action, including development under the subject zoning amendments will be assessed as a "Development of Regional Significance" in order to provide a comprehensive review of the project in consideration of the Central Pine Barrens CLUP. Parts of the Study Area are also located within the Town's APOD and/or contain freshwater wetlands and associated upland adjacent areas[1] that are currently subject to regulatory review by the Town pursuant to Chapter 157 of the Town Code as well as the NYSDEC per Article 24 of the Environmental Conservation Law of the State of New York. The Central Pine Barrens CGA, APOD, and NYSDEC designated freshwater wetlands and adjacent areas are considered "critical areas" under Section 157-10, "Critical areas," of the Southampton Town Code. Designation as a critical area by the Town, as authorized by SEQRA Section 617.14 (g), carries with it the requirement that all actions occurring within the boundaries of the critical area that are subject to SEQRA be classified as a Type I action and thereby are more likely to have one or more potential environmental impacts and thus would be more likely to require an EIS to sufficiently evaluate potential impacts. CEAs also require involved agencies to consider the potential for impacts to these areas when making their Determinations of Significance.

The area located south of SR 24 is also located within the Long Island Regional Planning Board's Central Suffolk Special Groundwater Protection Area (SGPA) (South), and borders the County's "Peconic Bay and Environs" CEA which includes the lower Peconic River, Flanders Bay and the greater Peconic Estuary, which are County designated "Critical Environmental Areas." Like the Town, the County also considers the Long Island Central Pine Barrens to be a CEA.

6.1.2 Other Regulated Environmental Districts

Sections of the Peconic River are classified as New York State Wild, Scenic and Recreational River (WSRR) areas and a small portion of the Study Area is in a WSRR "Recreational" area. The State's WSRRs are not classified as CEAs, *per se*, but are nevertheless, identified as environmental resources of great value with attributes that must be protected.

The aforementioned CEAs and WSRR areas focus primarily on the protection of critical or highly valued water resources; however, ecological considerations are also paramount within

[1] "Adjacent area" means those areas of land or water that are outside a wetland and within 100 feet (approximately 30 meters), measured horizontally, of the boundary of the wetland. The Department may establish an adjacent area broader than 100 feet (approximately 30 meters) where necessary to protect and preserve a wetland, as set forth in subdivision 24-0701.2 of the Act and pursuant to Part 664.

these resource areas. As previously noted, despite its location along a tidal section of the Peconic River, the Study Area is not currently located within a Local Waterfront Revitalization Program (LWRP) Area (although the Town Board is considering an effort to prepare an LWRP) or Coastal Erosion Hazard Area (CEHA) and does not contain New York State Significant Coastal Fish and Wildlife Habitat. Land north of SR 24, is however, within a Landward Coastal Boundary and may require additional review for coastal consistency in the future.

6.2 Potential Impacts

6.2.1 Critical Environmental Areas

The potential impact of the proposed optional Overlay Zones and Theoretical Development Scenario with respect to the previously listed CEAs (APOD, CPBOD/Central Pine Barrens Compatible Growth Area, NYSDEC freshwater wetlands and adjacent areas, Central Suffolk SGPA and Peconic Estuary and environs) involves assessment of the requirements and resource protection goals of those districts in consideration of the Proposed Action. Resource protection goals seek to avoid impacts related to the removal of native vegetation, loss or degradation of wildlife habitat, land disturbance, pre- and post-development activities, and other possible means of introducing pollutants which could degrade the quality of surface waters, wetlands, and groundwater, if potential impacts are not avoided or properly managed. Potential impacts related to development may include clearing, filling, excavation, grading, stormwater and wastewater discharges, land maintenance activities (e.g., fertilization), disturbance to pre-contaminated sites, and construction activities, which can all be properly managed through judicious planning and engineering and consistency and compliance to the numerous existing environmental laws that are currently in place. Compliance is ensured through the land use review process which will address the conditions and restrictions of all required permits and approvals, and ultimately, the implementation of any standards and mitigations set forth by the SEQRA Findings Statement for this Action. The following subsections assess the Proposed Action in consideration of each CEA.

<u>Aquifer Protection Overlay District</u>

Article XIII of the Town of Southampton Zoning Code discusses the purpose and intent of the Town's Aquifer Protection Overlay District (APOD) (**Figure 6-1**) and identifies the supplemental standards beyond the underlying zoning district's land use and dimensional requirements that must be adhered to in this zone. In short, the overriding purpose of the APOD is to ensure a safe and sustainable drinking water supply for existing and future generations. The APOD seeks to accomplish this goal by providing several general land and resource management requirements:

- Clearing restrictions. Clearing is to be limited to 50 percent of a property on which a nonresidential and multifamily residential development, excluding planned residential

developments with attached-housing, is proposed.[2] Clearing for single-family residential developments is restricted based on a sliding scale ranging between 15 and 75 percent of the size of the lot or tract, depending on the lot's size [classification] (The smallest lots are allowed the largest percent of clearing and the largest lots are constrained to the smallest percentage).

Much of the ROD has been cleared and disturbed and natural resources in this area have been largely diminished or degraded. The natural woodlands that remain in the area are fragmented, are relatively small, or are already contained within publicly owned parklands and preserves. Much of the land that is currently forested is located north of SR 24 and east of Peconic Avenue, and is therefore, outside of the APOD.

One property in the APOD that is not publicly owned, preserved, fragmented or otherwise disturbed which currently contains native woodlands is SCTM No: 900-139-3-10.2. This long and narrow 12.5-acre parcel is located near the center of the ROD and extends from SR 24 to Old Quogue Road. Based on a review of the conceptual redevelopment plans for the area, however, only a portion of this property would be developed (i.e., that portion near its middle which is directly west of and adjacent to the Southampton Enterprise Subdivision) which also contains woodlands. The northern and southern ends of this lot are expected to remain relatively untouched. Maintaining some natural areas in the ROD is important in order to provide consistency with APOD (and CPBOD) guidelines, as well as to protect groundwater and a very small intermittently Town regulated freshwater wetland located at the north end of this property. ***Figure 6-2*** *shows existing woodlands in the Study Area that are in the Central Pine Barrens. It is anticipated that upon submission of a site plan application for the development of this parcel, that due consideration will be made by the applicant and Town to limit clearing and retain native vegetation to the maximum extent possible in order to meet the overall intent and purpose of the APOD.*

The anticipated clearing within the APOD under the Theoretical Development Scenario is 180.85 acres or 70 percent of the Study Area which is calculated and described in detail in ***Appendix G****, Riverside Hamlet Central Pine Barrens Clearing Analysis. Therefore, based on the preceding and the referenced clearing report, it is expected that the future development under the Theoretical Development Scenario may exceed current APOD standards. It should also be noted that the primary areas for concentrated development are nearest the traffic roundabout at the south end of Peconic Avenue in areas that are previously subdivided, include smaller lots and have been subject to prior development/disturbance. The Planning Board has had a policy of not requiring strict compliance of clearing limitations in such cases. Other areas including the 12.5 acre parcel noted above and lots in the Enterprise Zone Drive subdivision will either comply with the APOD or may even provide additional natural areas beyond the minimum required. The level of development necessary to ensure the critical mass needed to fulfill crucial Town and community social and economic needs and make such redevelopment economically viable, thereby, may necessitate exercising the policy related to previously disturbed areas and/or some level of relaxation of the clearing standard along with suitable mitigation through retention of combined open space throughout the Study Area similar to the methods outlined for Pine Barrens CLUP conformance in* ***Appendix G****. Section 330-69-4 E. of the Southampton Town Code, which is discussed further at the end of this subsection, allows the Planning Board to relax APOD standards where the applicant has proven that there is a practical difficulty in meeting these*

[2] Section 330-67 of the Southampton Town Code indicates that the Town Board may alter or waive the provisions of this subsection where an affordable housing project otherwise would meet the provisions of the Town Code and a revegetation program which protects the aquifer is incorporated into the project design.

regulations and that environmental considerations are still satisfied to the maximum extent possible. A series of mitigation strategies have been developed to offset the anticipated disparity between the standard and the anticipated condition and to balance important social and economic considerations. A report outlining the analysis and recommendations regarding overclearing is available for review in ***Appendix G****. See also discussion of CPB Standard "5.3.3.6.1" in the next subsection.*

- Limitations on fertilizer-dependent land uses. Fertilized vegetation shall not exceed 15 percent of the area of a lot within the APOD. Fertilized vegetation on a tract shall not exceed 20,000 square feet, except if said fertilized vegetation is in accordance with a landscape plan approved by the Planning Board. Said landscape plan shall clearly indicate the proposed landscaping, as well as the anticipated amount (in pounds per square feet) of fertilizer which will be applied).

  Future development will comply with a 15 percent fertilizer dependent vegetation restriction. This is consistent with the Central Pine Barrens CLUP, and is also consistent with the goals of the applicant to reduce fertilizer dependent vegetation to the maximum extent. Landscaping or site restoration will consist largely of, if not entirely of, native or well adapted non-invasive species that will require very little if any fertilizer, pesticides, or irrigation. Some initial fertilization and irrigation may be necessary on 15 percent or less of development sites or less than 20,000 SF, as applicable, in order to establish landscaping or restore areas to natural/more natural conditions, but once landscaping is established or native vegetation is restored it is not expected that significant, if any, demand for these inputs will be required. Applicants for future site plans will work with the Town Planning Board and staff to ensure the appropriate levels of clearing and to identify acceptable plant species for landscaping and/or plant restoration that is suitable for the APOD. Species listed in the "Recommended native plants" section of Figure 5-2 of the CLUP are acceptable, while those listed in the "Invasive, nonnative, plants specifically not recommended" of Figure 5-2 would be unacceptable.

- Prohibitions against the establishment of waste disposal areas.

  The Proposed Action does not involve the establishment of any solid or hazardous waste disposal areas. Future development under the proposed zoning does not involve the direct disposal of solid waste or hazardous materials in the area and existing environmental laws prohibit such activities. The types of land uses permitted in the proposed ROD are not considered to be uses that are typically associated with the use, handling, storage or disposal of hazardous materials thereby reducing the risk of accidental release of pollutants and significant environmental damage.

  There is a need to locate a wastewater treatment facility if the goals of revitalization as outlined in the RRAP are to be realized. Suffolk County has prepared a wastewater feasibility report for the Riverside area, and further consideration of potential sites within the Study Area is outlined in Section 14.0, Alternatives, specifically 14.3, Sewage Treatment Plant Options. Any such installation will be required to meet various design criteria, setback constraints and siting requirements pursuant to the applicable regulations as well as SCDHS and SCDPW requirements. Each of these options must be studied in greater detail to identify the option that is most viable and will ensure an adequate level of environmental protection to receive the necessary permits. Depending on funding, land availability, development phasing or other factors, once a site is selected, setback and/or other design criteria will be evaluated for conformance and if necessary, may need to seek relief by demonstrating the benefits of such facilities including how such facilities can protect the environment and demonstrate that a

significant environmental impact will not occur. Connecting to an STP has the benefit of providing advanced sewage treatment rather than continued use of cesspools and septic systems on small substandard lots (pursuant to Article 6 of the Suffolk County Sanitary Code) as is currently the case in the Hamlet.

- Classification of APOD areas as "critical environmental areas" under §157-10 B. (1) of the Southampton Code and 6 NYCRR Part 617 §617.14 (g) of SEQRA.

  This Proposed Action will guide future development in areas identified as CEAs by the Town of Southampton and Suffolk County. In consideration of this, and the thresholds outlined under SEQRA, Section 617.4 (b), "Type I actions," the subject Action is identified as a Type I action with the presumption that one or more potential adverse impacts may occur as a result of the implementation of the Proposed Action. As a result, this full Generic EIS has been prepared in conformance with 6NYCRR Part 617 (SEQRA) to examine the potential for impacts to these CEAs and other resources. Any and all significant impacts to CEAs in the proposed ROD will be identified and will be considered in the Town's Determination of Significance as well as a duly adopted Findings Statement at the end of the SEQRA process.

- Compliance with Chapter 247, Open space, for subdivisions and site plans in the APOD that are zoned CR-200, CR-120, CR-80, CR-60, CR-40, R-120, R-80, R-60, R-40 and R-20. Multifamily and nonresidential development must include the preservation of 50 percent of the property. Section 247-3 of the Code empowers the Planning Board to require the use of this article where it would benefit the Town but it is not compelled to require the implementation of this provision.

  The Proposed Action involves the creation of a Riverside Overlay District in the Study Area which will contain seven distinct mixed-use Overlay Zones. These mixed-use Overlay Zones are not strictly residential zones but in certain locations are underlain by one of the above districts. Existing (underlying) residential zones in the Study Area that may be subject to consideration under the open space provision should subdivisions or site plans be proposed within them in the future, and if the Planning Board was to find it beneficial to preserve such space, include those properties located within the CR-40 and R-20 zoning districts.[3] *The CR-40 zone in the Study Area is already preserved as it is contained within the David A. Sarnoff Wildlife Preserve, but notwithstanding this designation, will be zoned RPL (Riverside Parkland) under the subject Action which does not provide for land development and thereby eliminates the need for further open space preservation as an overlay district. Moreover, the portion of the R-40 zone in the Study Area is already developed with numerous single-family homes comprising a residential neighborhood, and due to this condition, is very unlikely to be acquired, assembled and remerged for the purposes of future subdivision or site plan development. In the very unlikely event that it was acquired and plans were submitted for redevelopment sometime in the future, the Town Planning Board would have the authority to request an open space subdivision and the set aside or preservation of portion of this land. Based on the preceding assessment, as well as the fact that the area is largely disturbed and developed, its woodlands are highly fragmented, some of the land is already preserved, and there are enormous open space reserves adjacent to the Study Area, it is very unlikely that this open space standard would be requested by the Town in the Study Area.*

[3] Note: Land located within the ROD that is zoned R-80 is outside of the APOD and significant open space is already preserved in this area.

As previously mentioned, the above standards must be complied with, except as outlined under Section 330-69-4 E. of the Southampton Town Code which states that the provisions of [Article VIII] including the standards and regulations summarized in the first three bullets above, may only be modified by the Planning Board after due consideration is given to a site disturbance plan, as provided in Section 330-67A(1) of this chapter, and where the applicant has proven that there is a practical difficulty in meeting these regulations and that environmental considerations are still satisfied to the maximum extent possible.

Town Central Pine Barrens Overlay District and Central Pine Barrens CGA

The 1993 Long Island Pine Barrens Protection Act, 1996 Central Pine Barrens Comprehensive Land Use Plan (CLUP), and the Plan's stewards, the Central Pine Barrens Joint Planning and Policy Commission, consider the protection of groundwater recharge areas, surfaces waters, wetlands, open spaces, recreational resources, agricultural resources, and rare plants, animals and wildlife habitats within the pine barrens to be of paramount importance and have review authority to ensure that these resources be protected for future generations.

The Town's Central Pine Barrens Overlay District was enacted to implement the CLUP, and to address Town goals for protecting the Core Preservation Area while allowing for a balance between economic growth and environmental protection in the CGA. Since the Town's framework of standards and policies are specifically designed to implement the standards and guidelines of the CLUP and the boundaries of the areas as depicted in **Figure 6-3** are contiguous, the two sets of standards and guidelines will be considered together in this subsection. Since the Town's standards must be at least as stringent as the CLUP's enumerated standards and policies, this review will focus on the Town's CPBOD requirements but will identify any differences between the two and reference the corresponding CLUP "standard"[4] (by signifying "**S**" and policy reference number) or "guideline"[5] (by signifying "**G**" and the policy reference number) so as to prevent unnecessary redundancy.

It should be noted that the CPBJPPC is an involved agency as it has or will have review authority over certain aspects of the Proposed Action. Through coordination with the CPBJPPC staff, it has been determined that the Proposed Action will be reviewed as a "Development of Regional Significance" as defined by the CLUP Volume 1, Section 4.5.5.1 while the Town's standards for development in the CGA are enumerated under Section 330-220 of the Southampton Town Code. The standards and guidelines of the CPBJPPC and Town of Southampton are as follows:

> (1) All development subject to Article 6 of the Suffolk County Sanitary Code shall meet the applicable requirements of the Suffolk County Department of Health Services.

[4] "Standards" are to be implemented, and are enforceable, by municipalities, municipal agencies and the Commission, or any other agency with enforcement powers within the Central Pine Barrens. Discretionary decisions regarding standards are to be made by the Commission, under the provisions set forth in Volume I, Chapter 4 of the CLUP.

[5] Guidelines are to be utilized by municipalities and municipal agencies with discretionary decisions determined at the municipal level, unless a project is before the Commission due to its location within a Critical Resource Area, because it is a Development of Regional Significance or because there was an assertion of jurisdiction as described in Volume I, Chapter 4 of the CLUP.

The CLUP adds that: projects which require variances from the provisions of Article 6 shall meet the requirements of the Suffolk County Department of Health Services' Board of Review in order to have been deemed to have met the requirements of this standard. (CLUP **S**-5.3.3.1.1, "Suffolk County Sanitary Code Article 6 compliance")

Article 6 of the Suffolk County Sanitary Code addresses the need to ensure that adequate sewage treatment facilities and drinking water supplies are available to realty subdivisions, site developments, and other construction projects. The Sanitary Code does this by establishing "maximum density load" standards for each County groundwater management zone and once a project exceeds a maximum density load per acre threshold, prohibits the use of on-site sanitary systems and requires connection to a community sewage system that is approved via variance approval by the SCDHS Board of Review. Similarly, Article 6 requires connection to a public water supply under certain circumstances, such as instances where facilities are available or in close enough proximity to be reasonably accessible by the development, when parcels in a subdivision are less than 40,000 SF, where the local water supply is non-potable, or where wells with fresh water have yields of less than 5 gpm. Article 6 restricts flow from septic systems to 600 gpd/acre or a 40,000 SF lot size north of SR 24 and 300 gpd/acre or 40,000 SF south of SR 24.[6] *The volume of wastewater generated under the Proposed Action would therefore trigger the need for most if not all future uses and redevelopments to connect to an STP. A SCWA public water supply distribution system is available in the area and future land uses and redeveloped sites will utilize this source of water to satisfy their potable water demands. Consequently, this standard will be complied with.*

If future projects require variances from Article 6 they must meet the requirements of the SCDHS's Board of Review in order to have been deemed to have met the requirements of this standard.

(2) Where deemed practical by the county or state, sewage treatment plant discharge shall be outside and downgradient of the Central Pine Barrens.

The CLUP adds that: Denitrification systems that are approved by the New York State Department of Environmental Conservation or the Suffolk County Department of Health Services may be used in lieu of a sewage treatment plant. (CLUP **S**-5.3.3.1.2, "Sewage treatment plant discharge")

Suffolk County has released a study of potential wastewater treatment options for Riverside, and Section 14.3 of this DGEIS examines potential wastewater treatment facility locations within the Study Area. Any such installation will seek the most environmentally sound location for one or more new advanced treatment STPs or connection to existing publicly owned and operated treatment facilities in the area. The proposed location, design, layout, treatment capacity, and effluent discharge standards must comply with and be approved by one or more of the following agencies: SCDHS, SCDPW, NYSDEC, CPB and/or other applicable agencies once a site and facility is selected. A major focus of this environmental review is on the reduction of nitrogen loading in the area in order to protect groundwater, surface waters, and wetlands to address CLUP and Peconic Estuary Program Total Maximum Daily Load (TMDL) standards. The proposed project will accomplish this by restricting clearing to the maximum extent possible

[6] 600 gpd/acre or 300 gpd/acre for commercial uses and 600 gpd/40,000 SF or 300 gpd/40,000 SF for multiple residential projects.

while meeting social and economic objectives and community planning goals, utilizing landscaping materials that do not require fertilization, controlling stormwater runoff, removing existing septic systems and cesspools that are currently in use at prospective redevelopment sites, and connecting anticipated development and redevelopment to an approved and carefully regulated and maintained STP that has the capability of significantly reducing nitrogen concentrations. It should be noted that future development without the Proposed Action would result in additional septic systems being installed, often on substandard-sized "grandfathered" lots, which would only further exacerbate the potential for water resource contamination.

(3) To protect the water quality in the vicinity of surface waters or wetlands, projects within 200 feet of such features should be designed to minimize nitrate-nitrogen loading to the groundwater with the goal of achieving less than 2.5 parts per million nitrate-nitrogen.

The CLUP states that a more protective goal of two and one half (2.5) ppm may be achieved for new projects through an average residential density of one (1) unit per two (2) acres (or its commercial or industrial equivalent), through clustering, or through other mechanisms to protect surface water quality for projects in the vicinity of ponds and wetlands. (CLUP **G**-5.3.3.1.3, "Nitrate-nitrogen goal")

Future development must comply with all Town, State and/or Federal wetlands permits including applicable clearing, setback and/or buffer requirements; limitations on the planting of fertilizer-dependent vegetation; erosion, sedimentation, and stormwater controls; compliance with wetlands permits and State Pollution Discharge Elimination (SPDES) stormwater and wastewater discharge permits, and the like. Future wastewater generation is expected to be treated and disposed at an approved STP facility and should be no closer than 200 feet from an regulated wetland unless determined to be acceptable by the Town, CPBJPPC, or other applicable agency having permit or approval authority. Nitrogen reduction will be of particular importance in the area including protection of area groundwater and river and estuary resources. As outlined in Section 4.0, Water Resources, the Study Area currently exceeds a concentration of nitrogen in recharge of 2.5 mg/l, therefore, the goal should be to not increase, or decrease the level of non-conformity. Section 4.0 demonstrates that this will be the case and the concentration of nitrogen in recharge will be reduced as a result of the implementation of the Proposed Action as outlined in the TDS. As a result, this CPBOD/CLUP requirement is met.

(4) All development shall comply with the provisions of Articles 7 and 12 of the Suffolk County Sanitary Code.

The CLUP goes on to say: "…including any provisions for variances or waivers if needed, and all applicable state laws and regulations in order to ensure that all necessary water resource and wastewater management infrastructure shall be in place prior to, or as part of, the commencement of construction." (CLUP **S**-5.3.3.2.1, "Suffolk County Sanitary Code Articles 7 and 12 compliance")

The purpose of Article 7 of the Suffolk County Sanitary Code, "Water Pollution Control," is to safeguard the County's water resources, especially in deep recharge and water supply sensitive areas, from discharges of sewage, industrial chemicals and other wastes, toxic or hazardous materials. These laws also strive to prevent stormwater pollutant loading by preventing or controlling such sources that already exist or that may be proposed in the future.

Some light industrial uses would be permitted in the area both under the existing underlying zoning and the proposed Overlay Zones; however, the uses that would be permitted under the light industry use classification of the proposed Overlay Zones (with the exception of any nonorganic agricultural activities) are the kinds of uses that do not typically involve the use, generation, storage, handling or on-site disposal of significant volumes of noxious materials or that could not be easily managed to ensure compliance with Articles 7 and 12. Existing LI-40 zones currently permit a much broader array of light industrial uses than the Overlay Zones.

The Master Developer is presently considering the construction of an approximately 100,000 SF indoor ice hockey/skating rink in an area that is currently zoned for light industry. This facility would take up a large portion of this area, thereby reducing the likelihood of potential impacts from industrial uses, and would not be expected to use, generate, handle or store any significant amount of hazardous materials.

This Generic DEIS identifies numerous ways by which to reduce threats to groundwater resources from human generated contaminants, including compliance with various existing environmental regulations that have been put into place for the purposes of protecting drinking water supplies, connection to an approved STP, conformance to stormwater and wastewater permits, and limitations on the establishment of fertilizer dependent vegetation. Future agricultural uses are not expected, however, if such use is proposed in the future, restrictions should be put into place to greatly reduce any fertilization through best management practices or organic farming techniques.

Any development that may require a variance or waiver from any law or statute will be compelled to adhere to any and all conditions of those approvals.

(5) All development involving significant discharges to groundwater in close proximity to public water supply wells shall include adequate mitigation measures to protect the water quality as required under Article 17 of the New York State Environmental Conservation Law. (CLUP **S**-5.3.3.3.1, "Significant discharges and public supply well locations")

SCWA does not own or operate any wellfields within a 1,500 foot radius of the Proposed Action. SCWA's Oak Avenue wellfield, which is its closest wellfield to the Study Area, contains one active well, and this well is located roughly 1.6 miles (or about 8,500 feet) southeast of the ROD. Moreover, based on correspondence with the SCWA, it has been determined that the Study Area is not within any of SCWA's public water supply groundwater capture zones. Correspondence from SCWA is provided in ***Appendix J****. Furthermore, the closest Riverhead Municipal Water District wellfield is at the southwest corner of the intersection of Pulaski Road and Raynor Avenue, which is approximately 4,300 feet from the ROD and appears to be up-groundwater-gradient of the Study Area. The Proposed Action affects an area that is heavily regulated and restricted by environmental regulations. Connection of future development to an STP and compliance with the numerous regulations in place, except where variances or waivers are determined to be acceptable due to specific conditions and circumstances and adherence to conditions of approval that suitably safeguard public health and essential resources, will help to protect groundwater resources and public water supplies.*

(6) All development involving significant discharges to groundwater in close proximity to private water supply wells shall comply to the Suffolk County Department of Health Services' guidelines for wellhead protection. (CLUP **G**-5.3.3.3.2, "Private well protection")

It is anticipated that Phase I and possibly Phase II ESAs, as warranted, will be performed at future redevelopment sites. Existing septic systems, cesspools, fuel storage tanks, drywells, floor drains, any contaminated soils exceeding established standards, and other similar potential pollutant sources will be inspected, cleaned and removed or properly abandoned, in conformance with the applicable standards and specifications of the SCDHS and/or NYSDEC and any waste recovered will be disposed at a licensed disposal or recycling facility.

It is also anticipated that future development will connect to a publicly operated and licensed STP for wastewater treatment and disposal needs. Should any on-site sanitary system be proposed instead, due to limited wastewater flow which meets SCDHS's Groundwater management loading requirements, an investigation into the locations of nearby wells must be undertaken as part of SCDHS review to ensure that any such facilities are suitably setback from existing private wells, in accordance with the requirements of the SCDHS. Similarly, future drainage structures, including but not limited to leaching catch basins, dry wells or recharge areas should be setback as far as practicable from private wells. Private wells on redevelopment sites should be properly abandoned to ensure that they do not act as direct conduits of pollutants from the surface via annular spaces surrounding wells, and all development should connect to the SCWA distribution system which is easily accessible throughout the Study Area.

(7) Development proposals for sites containing or abutting wetlands shall be separated by a nondisturbance buffer area which shall be no less than that required under Chapter 325 of the Town Code and applicable state laws. Distances shall be measured horizontally from the wetland edge as defined in the applicable laws. Such buffer areas shall be delineated on the development plans, and adequate conditions shall be imposed to assure their preservation. Said conditions shall be set forth in a declaration of covenants, conservation easement or similar instrument. (Also CLUP **S**-5.3.3.4.2, "Buffer delineations, covenants and conservation easements")

The CLUP's wetlands nondisturbance buffer standard is quite similar to that of the Town except it references New York State Tidal Wetland, Freshwater Wetland, and Wild, Scenic and Recreational Rivers Act ordinances as the applicable standards to follow. The CLUP goes on to say: Distances shall be measured horizontally from the wetland edge as mapped by the New York State Department of Environmental Conservation, field delineation or local ordinance. Projects which require variances or exceptions from these state laws, local ordinances and associated regulations, shall meet all requirements imposed in a permit by the New York State Department of Environmental Conservation or a municipality in order to be deemed to have met the requirements of this standard. (CLUP **S**-5.3.3.4.1, "Nondisturbance buffers")

The CLUP further states that stricter nondisturbance buffer areas may be established for wetlands as appropriate (CLUP **G**-5.3.3.4.4, "Additional nondisturbance buffers")

The Study Area contains areas identified as NYSDEC and NWI tidal and freshwater wetlands and also contains two small freshwater wetlands that are not mapped by State or Federal authorities but are regulated by the Town. Any future development or site disturbance within NYSDEC, NWI, and/or Town wetlands jurisdiction(s) will be required to receive a wetlands permit from the respective issuing authority(ies) and abide by all conditions and requirements of such permits including adherence to requirements for the dedication of non-disturbance buffers and formal acknowledgement and documentation of buffer agreements through the filing of conditional easements and/or covenants and restrictions; conformance to any required wetlands setbacks; implementation of stormwater, erosion and sedimentation controls; adherence to clearing limitations, restrictions on fertilizer dependent vegetation, and nonnative and invasive species

planting controls; and any other requirements that may be reasonably imposed by the issuing authority(ies).

(8) All stormwater runoff originating from development on the property shall be retained on-site, unless surplus capacity exists in an off-site drainage system. Where practical, natural recharge areas and/or drainage systems that cause minimal disturbance of native vegetation may be required. Ponds may be created if they are designed to accommodate stormwater runoff and not solely for aesthetic purposes. (Also, CLUP **S**-5.3.3.5.1, "Stormwater recharge")

Where practical, drainage designs shall incorporate the use of natural swales and depressions, rather than excavated recharge basins. Adequate measures shall be taken to control soil erosion and stormwater runoff during construction. (**G**-5.3.3.5.4, "Natural topography in lieu of recharge basins")

Ponds should only be created if they are to accommodate stormwater runoff, not solely for aesthetic purposes. (CLUP **G**-5.3.3.5.3, "Ponds")

All drainage from the applicable design storm/rainfall event will be captured, retained and recharged on respective development sites unless adequate surplus capacity exists in an approved off-site drainage system. There will be no direct/unfiltered or pretreated point discharges of stormwater to any natural wetlands or surface water bodies and any buffers required by approving authorities will be respected. Drainage methods and designs must be prepared by a licensed professional and be consistent with applicable New York State and Town of Southampton standards and procedures, including NYSDEC's 2015 New York State Stormwater Management Design Manual, SPDES stormwater permit requirements, SWPPPs, Erosion and Sedimentation Control Plans, and the policies of Chapter 285, "Stormwater Management and Erosion and Sedimentation Control," of the Code of the Town of Southampton. Drainage will be designed by a professional engineer and must be approved by the Town Engineer and Planning Board before installation.

(9) Disturbance of natural vegetation shall comply with the minimum standards set forth under Article XIII, Aquifer Protection Overlay District, of this chapter. Development plans shall contain calculations for the amount of disturbance of natural vegetation and indicate the limits thereof. For the purposes of this section, the percentages of disturbance of the natural vegetation set forth in Article XIII shall include all areas previously disturbed.

The CLUP further states that the clearance of natural vegetation shall be strictly limited. Site plans, surveys and subdivision maps shall delineate the existing naturally vegetated areas and calculate those portions of the site that are already cleared due to previous activities. (**S**-5.3.3.6.1, "Vegetation Clearance Limits")

Areas of the site proposed to be cleared combined with previously cleared areas shall not exceed the percentages in Figure 5-1 [of the CLUP]. These percentages shall be taken over the total site and shall include, but not be limited to, roads, building sites and drainage structures. The clearance standard that would be applied to a project site if developed under the existing residential zoning category may be applied if the proposal involves multi-family units, attached housing, clustering or modified lot designs. Site plans, surveys and subdivision maps shall be delineated with a clearing limit line and calculations for clearing to demonstrate compliance with this standard. (**S**-5.3.3.6.1, "Vegetation Clearance Limits")

To the extent that a portion of a site includes Core property, and for the purpose of calculating the clearance limits, the site shall be construed to be the combined Core and CGA portions. However, the Core portion may not be cleared except in accordance with Section 5.2 of the Plan. (**S**-5.3.3.6.1, "Vegetation Clearance Limits")

The portion of the Study Area south of SR 24 is in the CPB CGA and no portion of this area is within a CPB CPA. Much of the ROD within the CPB CGA has been cleared and disturbed and native vegetation patterns are highly fragmented. Much of the existing native vegetation is contained with property that has been acquired by a public agency and preserved. One property that is not publicly owned, preserved, fragmented or otherwise disturbed which currently contains native woodlands is SCTM#: 900-139-3-10.2. This long and narrow 12.5-acre parcel is located near the center of the ROD and extends from SR 24 to Old Quogue Road. Based on a review of the conceptual redevelopment plans for the area, however, only a portion of this property would be developed (i.e., that portion directly west of the Southampton Enterprise Subdivision) with the northern and southern ends remaining untouched. This is important in order to limit clearing within the APOD as well as to protect a very small intermittently wet Town regulated freshwater wetland located at the north end of this property. It is anticipated that upon submission of a site plan application for the development of this site, that due consideration will be made by the applicant and Town to limit clearing and retain native vegetation to the maximum extent possible in order to meet the overall intent and purpose of the APOD. ***Appendix G*** *contains an analysis of the Study Area as related to the Vegetation Clearance Limitation standard (S-5.3.3.6.1). This analysis identifies clearing limits for the overall study area, and what amount of vegetation may be cleared and still conform with clearing limits. Should clearing limits be exceeded, several options are provided to ensure compliance with the spirit and intent of the CLUP (see* ***Appendix G****).*

(10) Where applicable, subdivision and site design shall support preservation of natural vegetation in large unbroken blocks that allow contiguous open spaces to be established when adjacent parcels are developed. Where applicable, subdivision and site design shall be configured in such a way as to prioritize the preservation of native pine barrens vegetation.

Subdivision and site design shall support preservation of natural vegetation in large unbroken blocks that allow contiguous open spaces to be established when adjacent parcels are developed. Subdivision and site designs should also be configured in such a way so as to prioritize the preservation of native pine barrens vegetation to the maximum extent practicable. (CLUP **S**-5.3.3.6.2, "Unfragmented open space")

For the purpose of this paragraph, native pine barrens vegetation shall include pitch pines and various species of oak trees, understory and ground cover plants such as blueberry, wintergreen, bearberry and bracken fern, grasses and sedges such as little bluestem, Pennsylvania sedge and Indian grass as well as those ecological communities listed in sections 5.6 and 5.7 in Chapter 5, Volume 2 of the [CPB] Plan. (CLUP **S**-5.3.3.6.2, "Unfragmented open space")

It is recognized that the preservation of nonnative but ecologically important habitats may be consistent with the intent and goals of the plan when such action would result in the creation of large contiguous natural open space areas and or the protection of rare, threatened or endangered species or their habitat. (CLUP **S**-5.3.3.6.2, "Unfragmented open space")

The Study Area is currently largely developed and natural areas are highly disturbed and fragmented with the exception of one long narrow wooded lot near the center of the Study Area, which is south of SR 24 and west of the Southampton Enterprise Zone industrial subdivision. Thousands of acres of woodlands, ponds, streams, creeks, and wetlands in the area have already been acquired by the Town, County, State, and private land preservation groups and been dedicated for open space preservation. The preservation of large, primarily contiguous tracts of open space has resulted in the clustering of development in the area and has left proportionately little land for supporting population growth and economic expansion and well-being. Five large tracts within the ROD have also been preserved and these areas are proposed to be zoned RPL in order to memorialize the preclusion of development if in the unlikely event that they were to be conveyed to a private entity, and perpetuate their status as protected lands under the Proposed Action. These areas are found along the Peconic River (which are outside the CPB) and include three large tracts (one containing eight contiguous tax lots and another containing three contiguous tax lots), one is the existing Ludlam Avenue Park, which is an active recreational facility, and another is part of/contiguous to the David A Sarnoff Preserve which is part of the CPB. It is the intent of the Proposed Action and Master Developer, to protect natural areas, habitats and any rare, threatened and or endangered species that may be encountered to the maximum extent practicable. Clearing limits should be delineated on future site plans and project limiting fences should be erected upon commencement of site disturbance to prevent unintended disturbance of areas to remain natural.

There is potential for rare, threatened and endangered species to utilize the existing natural areas within and surrounding the study area. The majority of proposed development activities is expected to be concentrated within the central portion of the Study Area where limited natural areas exist, however, some clearing of natural areas is anticipated to occur in the north central portion of the study area where privately held undeveloped lands remain. Prior to any development project that is in proximity to known rare, threatened or endangered species, site specific surveys will be conducted to determine the presence/absence of such species. If positive identification of such species occurs on the development site, the developer will be required to work with the Town and the NYSDEC to incorporate appropriate design changes or mitigation measures necessary for the protection of the identified species.

(11) Development projects shall place no more than 15 percent of the entire site in fertilized vegetation. The use of nonnative plant species shall be limited to the maximum extent practicable and development designs shall consider the nonnative and native planting suggestions contained in Figure 5-2 of the CLUP. (**S**-5.3.3.6.3, "Fertilizer-dependent vegetation limit" and **S**-5.3.3.6.4, "Native Plantings")

Future development will comply with this 15 percent fertilizer dependent vegetation restriction. Landscaping or site restoration can consist largely of, if not entirely of, native or well adapted non-invasive species that will require very little if any fertilizer, pesticides, or irrigation. Some initial fertilization and irrigation may be necessary on 15 percent or less of development sites to establish landscaping or restore areas to natural conditions, but once landscaping is established or native vegetation is reestablished, it is not expected that such plantings would require significant demand for these inputs. Best Management Practices (BMPs) should be instituted by the land owner in these instances to limit potential nitrogen loading. Use of slow release fertilizers if they are used at all, use of the minimum amount necessary and avoiding fertilizer application before precipitation events are some of the types of over-application and other similar. Applicants for future site plans should work with the Town Planning Board in ensuring

the appropriate levels of clearing and the materials that should be used for landscaping and/or native plant restoration. Use of mulch and/or loamy top soil to supplement landscaped areas can help to improve soil water holding capacity, if necessary. Riverside Overlay Zoning mandates the reduction of potable water consumption for outdoor landscape irrigation by 20% from a calculated midsummer baseline case, which would require use of any combination of different techniques, including the planting of variety of native species and at different densities and microclimate factors.

(12) Where a development application may have a significant negative impact upon a habitat essential to those species identified on the New York State maintained lists as rare, threatened or of special concern, or upon the communities classified by the New York State Natural Heritage Program as G1, G2, G3 or S1, S2 or S3 or on any federally listed endangered or threatened species, appropriate mitigation measures shall be taken to protect these species. (CLUP **S**-5.3.3.7.1)

*As indicated in **Section 5.1**, there is potential for rare, threatened and endangered species to utilize the existing natural areas within and surrounding the study area. The majority of proposed development activities are expected to be concentrated within the central portion of the Study Area where limited natural areas exist, however, some clearing of natural areas is anticipated to occur in the north central portion of the study area where privately held undeveloped lands remain. Prior to any development project that is in proximity to known rare, threatened or endangered species, site specific surveys will be conducted to determine the presence/absence of such species. If positive identification of such species occurs on the development site, the developer will be required to work with the Town and the NYSDEC to incorporate appropriate design changes or mitigation measures necessary for the protection of the identified species.*

(13) Development projects shall minimize disturbance of the grade and/or natural vegetation where slopes exceed 10 percent. Construction in areas where slopes exceed 10 percent may be approved if the design incorporates adequate soil stabilization and erosion control measures so as to mitigate negative environmental impacts. Where applicable, clearing envelopes and/or nondisturbance buffers shall be placed on those portions of the development site where slopes exceed 10 percent. Development applications shall include a slope analysis depicting slopes in the ranges of 0 percent to 10 percent, 11 percent to 15 percent and 15 percent and greater. Erosion and sediment control plans and, where applicable, details of retaining walls and erosion control structures shall be required for construction in areas where slopes exceed 15 percent and for roads and driveways traversing slopes of 10 percent. (CLUP **G**-5.3.3.8.1 "Clearing envelopes"; CLUP **G**-5.3.3.8.6, "Retaining walls and control structures"; CLUP **G**-5.3.3.8.4, "Erosion and sediment control plans; and CLUP **G**-5.3.3.8.5, "Placement of roadways")

During construction, the standards and guidelines promulgated by the New York State Department of Environmental Conservation pursuant to state law, which are designed to prevent soil erosion and control stormwater runoff, should be adhered to. (CLUP **G**-5.3.3.5.5, "Soil erosion and stormwater runoff control during construction")

Construction of homes, roadways and private driveways on slopes greater than ten percent (10%) may be approved if technical review shows that sufficient care has been taken in the design of stabilization measures, erosion control practices and structures so as to mitigate negative environmental impacts. (CLUP **G**-5.3.3.8.2, "Stabilization and erosion control")

Project review is facilitated if submissions contain a slope analysis showing slopes in the ranges 0-10%, 11-15% and 15% and greater. In areas with steep slopes, slope analysis maps should be required. This can be satisfied with cross hatching or shading on the site plan for the appropriate areas. (CLUP **G**-5.3.3.8.3, "Slope analyses")

*The land within the ROD is flat to gently sloping with the exception of a very small area at the southeast end of the Riverwoods/MacLeod Community which contains some moderately steep slopes (**Figure 3-2**). If future redevelopment occurs in areas with slopes exceeding 10 percent a slopes analysis must be performed and development will comply with the above standards and submission requirements.*

Minimal grading is expected. Land will be developed consistent with approved stormwater, erosion and sedimentation plans and soils will be stabilized during construction and retained on-site by utilizing various techniques (e.g., silt fencing, use of rumble strips, seeding, dust control, as applicable, etc.). If wetlands permits are required, they will be secured from the applicable agency(ies) and all activities will comply with any and all conditions of those permits. Clearing, grading, and erosion and sedimentation control plans will be prepared by professional engineers and will be consistent with Town and State requirements, including the standards and specifications of any and all approved SPDES permits, SWPPPs, and erosion and sedimentation plans. All such plans will meet the satisfaction of the Town Engineer.

(14) Applications for development projects proposing open space and/or similar reserve areas shall specify the conditions of ownership and use of such lands, and such conditions shall be set forth in the deed of dedication, declaration of covenants, conservation/open space easement or similar instrument. (CLUP **G**-5.3.3.9.3, "Protection of dedicated open space")

Any land to be dedicated as open space or as similar reserve areas will comply with this requirement.

(15) Where applicable, the use of a planned residential development or clustering pursuant to the provisions of Article I of Chapter 247 of the Town Code shall be encouraged to preserve open spaces. Where applicable, the use of a planned industrial park pursuant to the provisions of § 330-36 of this chapter shall be encouraged to preserve open spaces.

The proposed Overlay Zoning and Theoretical Development Scenario are part of a thoughtfully considered master development and redevelopment plan for the area which seeks to satisfy various Town and Community goals and implement various Town and Community objectives. The Proposed Action, if approved and implemented, calls for the redevelopment of a previously disturbed and developed community that is clustered along the outskirts of an enormous "sea" of preserved open space which includes the 52,500-acre (82-square mile) Central Pine Barrens Preserve, as well as the restricted 47,500 CGA. As previously noted several large tracts within the ROD, totaling 57.6 acres, have already been preserved and the proposed zoning of these parcels to RO-7 Recreation and Parklands will essentially immortalize their protection. The David A. Sarnoff preserve which is adjacent to the Study Area, alone, contains more than 2,700 acres, while Cranberry Bog County Park comprise adjacent areas to the west and large tracts of Town, State, and Peconic Land Trust managed property is adjacent on the Study Area's east.

(16) Where applicable, any new activity or any change or expansion to an activity involving agriculture or horticulture shall incorporate "best management practices" as set forth in Controlling Agricultural Nonpoint Source Water Pollution in New York State, Bureau of

Technical Services and Research, Division of Water, New York State Department of Environmental Conservation 1991, as same may be amended from time to time. (CLUP **G**-5.3.3.10.1, "Best management practices")

Currently, there is no agriculture or horticulture uses in the Study Area and no such uses proposed under the current Theoretical Development Scenario. The proposed overlay zoning, however, would allow agriculture in all but the RO-7 (RPL) zone and nearly all of the existing underlying zoning districts allow for agriculture and/or horticulture. Due to the limited size of the lots in the ROD and hence limited space, restrictions on clearing in the APOD, CPB and CPBOD, and generally poor soil conditions for agricultural activities, it is unlikely that agricultural uses would be established and occupy large sites. However, should agricultural or horticulture be proposed in the ROD in the future, it will be important to ensure that the owner and/or operator implement best management practices as required above in order to control soil erosion and sedimentation of wetlands and surface waters, and to prohibit or greatly restrict and properly manage any fertilizers or pesticides that may be applied, in order to prevent potential impacts to the Central Pine Barrens, sensitive groundwater supplies, and surface water and wetland resources. Future agricultural or horticultural uses therefore shall comply with the 1991 publication entitled Controlling Agricultural Nonpoint Source Water Pollution in New York State prepared by the Bureau of Technical Services and Research, Division of Water, New York State Department of Environmental Conservation, as same may be amended from time to time.

(17) Where applicable, development plans shall indicate established recreational and educational trails and trail corridors; active recreation sites; scenic corridors, including the Sunrise Highway; sites of historical or cultural significance; and sensitive archaeological areas, within 500 feet of the project site, and shall provide adequate measures to protect such cultural resources. The use of existing natural buffers or the restoration of degraded buffer areas, the use of signs or other man-made structures, consistent in style and scale with the community character, or other similar measures shall be taken to protect roadside areas and scenic and recreational resources.

The CPB specifically notes that cultural resources requiring attention include historic districts, sites on the State or National Registers of Historic Places, historic structures listed on the State or National registers recognized by local municipal law or statute, and sensitive archaeological areas as identified by the New York State Historic Preservation Office or the New York State Museum. A development proposal may be disapproved or altered if the local municipality determines that the development proposal, in its current form, may have a significant negative impact on any of the above resources. (CLUP G-5.3.3.11.1, "Cultural resource consideration")

The CLUP also states that protection measures for scenic and recreational resources should include, but not be limited to, retention of visually shielding natural buffers, replacement of degraded or removed natural visual buffers using native species, use of signs which are in keeping in both style and scale with the community character, and similar measures. (CLUP **G**-5.3.3.11.3, "Protection of scenic and recreational resources")

Moreover, the CLUP notes that development shall conform to the provisions of the New York State Wild, Scenic and Recreational Rivers Act, where applicable. Projects which require variances or exceptions under the New York State Wild, Scenic and Recreational Rivers Act shall meet all requirements imposed by the New York State Department of Environmental Conservation in order to be deemed to have met the requirements of this standard. (CLUP S-5.3.3.4.3, "Wild, Scenic and Recreational Rivers Act compliance")

There are thousands of acres of passive parklands in the Riverside area that contain miles of trails. The proposed redevelopment of the area envisions the construction of a boardwalk along a portion of the Peconic River near the traffic circle and the plans are being considered for a pedestrian bridge across the river to connect Riverside Hamlet with Downtown Riverhead which would be supportive of future Waterfire events and enhance connectivity and walkability. Much of the land along the River is also publicly owned and has the potential to provide additional trail and recreational opportunities.

A portion of the Study Area is within a NYS Wild, Scenic, and Recreational Rivers area classified as a "Recreational" area. This section of the Study Area includes land located southwest of the traffic circle including the existing Woodhull Avenue/Pegs Lane residential subdivision and some existing commercial properties near the traffic circle, several small house lots located along the south side of Maynard Street, land that is currently owned and preserved as part of the David A. Sarnoff State Preserve, and vacant woodlands that are adjacent to the east of the Preserve. Future development will conform to the requirements of the WSRR or any conditions of variances if variances are requested. Screening future uses with native vegetation is one way in which to mitigate impacts to the recreational qualities of this section of the WSRR area. The WSRR is discussed in greater detail in this subsection.

The Proposed Action also includes standards for Public and Privately Owned Civic Space that call for spaces of a minimum size at future development sites. These spaces may include plazas, courtyards, corner plazas, piazzas, greens, squares, pedestrian ways, front courts, roof gardens, and pocket parks. Such features, along with pedestrian-friendly streetscapes, will promote activity, social interaction, and site access and connectivity. The proposed Zoning Code amendments provided in the RRAP in ***Appendix A*** *of this document provides the standards and specifications of Public and Privately Owned Civic Space requirements.*

There are no designated scenic resources in the area, although the Peconic River is clearly an important visual and natural resource. Removal of existing blight and redevelopment in accordance with contemporary Town architectural review standards, sign controls, clearing restrictions and landscaping requirements will help to screen or enhance land uses to the extent possible.

Based on the available information, there are no State or National Register landmarks or historic districts within the Study Area. Historic landmarks and a historic district do, however, exist in Downtown Riverhead which is within 500 feet of a portion of the Study Area. As some land uses in Riverside located along the River will be visible from Downtown Riverhead, it will be important that future development does not starkly contrast or clash with the general nature and character of the historic district and Downtown landmarks. Future development will take advantage of the historical character of downtown Riverhead and ensure a level of compatibility with its character to benefit both communities or provide screening or other mitigations to address features that may significantly and adversely conflict with it.

Portions of the Study Area are located within areas identified as being archaeologically sensitive. These areas include land at the northwest end of the Study Area around the traffic circle and western boundary of the ROD and in the northeast corner of the ROD. These areas primarily include highly disturbed and developed land that has been filled, wetlands that can't be developed and should be protected by nondisturbance buffers, preserved lands, and an area containing dredge spoil deposits, and therefore, are unlikely to be developed or contain intact cultural resources. If future development is proposed within State designated archaeologically

sensitive areas that have not been significantly disturbed by past land activities, and/or are shown to contain nonnative soils, the Town should consider, on a site-by-site project-by-project basis whether a Phase I archaeological survey or cultural resource evaluation is warranted. A cultural resource evaluation should include contact with the State Historic Preservation Office (SHPO) for review, input and acceptance. If SHPO deems it appropriate, additional analysis may be required to mitigate any potential impacts. ***Section 8*** *of this document provides more detail concerning cultural resources.*

(18) All commercial or industrial development shall comply with the applicable provisions of the Suffolk County Sanitary Code and all other applicable federal, state or local laws.

The CLUP adds that these uses should be developed in a manner consistent with the goals and objectives of the Act and that Projects which require variances from the provisions of the Suffolk County Sanitary Code shall meet all requirements of the Department of Health Service's Board of Review in order to be deemed to have met the requirements of this standard. (CLUP **S**-5.3.3.12.1, "Commercial and industrial compliance with Suffolk County Sanitary Code").

Any future development that applied for relaxation from any requirement of the Suffolk County Sanitary Code must comply and would certainly be compelled to adhere to any restrictions or conditions the Board of Review required.

Central Suffolk Special Groundwater Protection Area (South)

The portion of the Study Area located south of SR 24, as well as land located north of 24 and west of Peconic Avenue is located in an area identified as the Central Suffolk Special Groundwater Protection Area (South) (**Figure 6-4**). The Long Island Regional Planning Board's 1992 Long Island Comprehensive SGPA Plan which created the Central Suffolk SGPA strives to protect groundwater, particularly within areas that provide deep recharge to Long Island's sole source groundwater supplies. The SGPA Plan also contains specific recommendations relative to wellhead protection, clustering of development, open space preservation, restrictions on excessive clearing of native vegetation, discouraging potentially hazardous land uses and the application of hazardous materials on land, in order to prevent the degradation of groundwater resources. SGPAs are considered CEAs under SEQRA, and like other CEAs, must be included in the environmental review and considered as part of the Determination of Significance, pursuant to SEQRA.

The 1992 SGPA Plan provides very broad and general recommendations but sometimes refers to specific locations and areas. General recommendations include:

(1) Clustering development along the Peconic River to preserve open space

Land located north of SR 24 along the Peconic River is outside of the Central Suffolk SGPA with the exception of the existing Town green space and the Peconic Paddler kayak rental business at the northwest corner of SR 24/CR 94 and Peconic Avenue (CR 63). The County and Town have also acquired roughly half of the land along the River from Peconic Avenue, east to the western boundary of the Study Area, while other lots along the River in this area are already developed with businesses (e.g., McDonalds restaurant, etc.).

There are thousands of acres of preserved land or active parklands in the Riverside/Flanders/Northampton area as listed below.

- *Ludlam Avenue Park*
- *Unnamed public open space acquisitions along the River*
- *Phillips Avenue Elementary School*
- *New County owned land along the Peconic River*
- *Peconic River*
- *Peconic Bays*
- *Cranberry Bog County Park*
- *David A. Sarnoff State Pine Barrens Preserve*
- *Wildwood Lake Park*
- *Grangebel Park (Riverhead)*
- *Maple Swamp County Park*
- *Birch Creek Pond County Park*
- *Sears Bellows County Park*
- *Flanders County Parkland*
- *Hubbard County Parkland*
- *Peconic Hills County Park*
- *Peconic River County Park*
- *Indian Island County Park (Riverhead)*
- *Indian Island Golf Course (Riverhead)*

These parklands have resulted in development being clustered in certain areas in the region including the Study Area. Even still, there is approximately 57.64 acres of publicly owned land in the ROD, which is dedicated for parks and recreation, and most of this amount is located north of SR 24 along or near the river. Existing parks in the Study Area are proposed to be zoned RO-7 ("Recreation and Parklands"), which under the proposed ROD would not be developed.

(2) Acquiring, replatting and clustering development on old filed map lots.

There are no remaining Old Filed Map subdivisions in the Study Area and most areas containing small lots (e.g., the subdivision along the west side of the Study Area), are currently developed. The project does, however, promote the consolidation of very small, small and substandard-sized lots for redevelopment and such land assembly is considered achievable in some areas, particularly near the center of the Study Area. It should be understood that the subject ROD, is itself, a clustered development ensconced within thousands of acres of preserved land that surrounds it. Moreover, some of the land in the Study Area has already been acquired by the Town and County, which has further diminished the size of the area available for economic development and revitalization and thereby creating a compact area for redevelopment.

(3) New sewage treatment plants should only be provided where it is essential to maintain or improve water quality.

Connection to new and/or existing STPs will be necessary in order to develop at the densities required to achieve the community's fiscal, social, and economic goals, protect sensitive environmental resources in the area, and affect positive economic change. Redevelopment of the ROD in accordance with ROD standards will have the benefit of eliminating existing individual on-site cesspools septic systems that provide limited wastewater treatment and replacing these systems with sewers that will pipe wastewater to an approved location where advanced sewage treatment that is routinely monitored and supervised by trained professional(s) will be provided.

Providing sewers in the area not only eliminates existing cesspools and septic systems on small, often substandard size lots, upon redevelopment, but also lessens the likelihood of additional sanitary systems being established under a no action/no sewers buildout of the area.

(4) Regulation of wastewater discharges

The SCDHS, SCDPW, and NYSDEC have primary review and approval authority over wastewater treatment options, siting, design, and wastewater discharges. NYSDEC is responsible for administering the State Pollution Discharge Elimination Systems (SPDES) wastewater permit program created through Article 17 of the Environmental Conservation Law (ECL) entitled "Water Pollution Control." State and County regulatory agencies require adherence to construction standards, periodic effluent sampling, compliance to specified effluent performance standards, the training of facility operators, and enforcement. SCDHS and DPW also have authority over the approval of certain types of facilities. SCDHS primarily oversees wastewater disposal but the DPW is responsible for overseeing County publicly owned treatment works or STP facilities.

(5) Limiting the creation of turf areas, selecting grasses and groundcovers that require minimum fertilization and watering, landscaping with plants that are relatively disease-resistant, use of slow release fertilizers.

These recommendations are not specific but are consistent with the policies of the Central Pine Barrens Comprehensive Land Use Plan and the Town's APOD and CPBOD, which were previously discussed in detail. The Plan and APOD restrict the establishment of fertilizer dependent landscaping to a maximum of 15 percent of a site (or a maximum of 15 percent or 20,000 SF in the APOD), both have clearing limitations and both promote the use of well adapted native plant species. The Proposed Action will comply to these standards, except that some relaxation of clearing may be requested in the future with suitable mitigation based on the Theoretical Development Scenario. See clearing mitigations provided under ***Section 6.3****.*

(6) Reducing development density and preserving open space.

As previously discussed, there are thousands of acres of preserved land in the surrounding area and several large tracts of land within the Study Area which have been preserved as open space and wildlife preserves. Moreover, the proposed RO-7 (RPL) Zone specifically precludes any future development within its boundaries, thereby perpetuating open space preservation in the area under the Overlay Zoning. The proposed overlay zoning will not reduce density but instead will increase density in the ROD. This additional development density, however, is of critical importance in achieving numerous long-standing social, economic and fiscal goals which are seen as imperative to revitalizing the area and assuring the long-term success and sustainability of the Riverside community. Moreover, this dense and compact development helps to achieve the recommendation for clustering development in Riverside with surrounding land preservation, as suggested by the SGPA Plan. Future development would be subject to numerous controls to ensure the uses are "clean" and to protect critical natural resources in the area.

(7) Limit industrial and non-essential commercial development and when permitted retain natural vegetation on-site.

A few limited light industrial uses would be permitted in the area under the proposed Overlay Zoning including: artisan production facilities, research and development facilities, data

information centers, document or miscellaneous storage, renewable energy facilities, agricultural, and animal husbandry. Each one of these uses could be constructed in the existing LI-40 zone under existing zoning and are relatively innocuous if properly operated and controlled. Some activities such as agriculture can involve clearing and use of chemicals in small but these uses are unlikely to be established in this area due to generally poor soil conditions for agriculture, limited space, and clearing and fertilization restrictions in effect from the Central Pine Barrens CGA, CPBOD, and APOD. The variety of commercial uses would also be somewhat restricted in comparison to what is currently permitted in several of the existing business districts in the ROD. Commercial uses that could be established in the area are generally low impact uses and are important for providing essential goods and services, jobs, and community investment and vitality.

(8) Designating SGPAs as critical environmental areas.

This recommendation has since been implemented pursuant to Section 617.14 (g) of SEQRA. The subject Action has been deemed a Type I action under SEQRA and this Generic DEIS provides the requisite analysis of potential impacts and mitigation to the Central Suffolk (South) SGPA required for SGPAs.

(9) Wellhead protection programs including ensuring proper land uses nonpoint pollution controls, in these areas, regulation of land uses, and identify areas of protection around wellheads. The closest public water supply well Area (Riverhead Water District's Pulaski Street wellfield) is approximately 4,500 feet from the Study Area and up-groundwater gradient while the closest Flanders Distribution Area wellfield (Oak Avenue) is 1.6 miles from the Study Area and the wellfield's groundwater contributing areas are nowhere near the Study Area. The Action is also nowhere near the Oak Avenue wellfield's groundwater contributing areas.

In regard to private wells, some existing uses in Riverside may still rely on wells. Sites that are redeveloped will be compelled to connect to the existing water mains in the area and any on-site wells will be abandoned in accordance with applicable standards. Septic systems and cesspools will also be removed at future redevelopment sites and the new development connected to sewers thereby providing greater protection of any remaining private wells in the area.

(10) Utilization of wells that are located on publicly owned preserved open spaces and parklands.

Development in Riverside that is connected to the public water system will use the Oak Avenue well as its source.

(11) Clean-up of contaminated sites.

Future redevelopment under the proposed overlay zoning will provide opportunities to cleanup as many as 17 individual properties within the ROD identified as "Sites of Environmental Concern" by NP&V due to past or present uses and site contamination revealed through a comprehensive review of available records (Toxics Targeting database search), and a preliminary field inventory conducted by NP&V. Future demolition and redevelopment at these site will be preceded by Phase I Environmental Site Assessments (ESA) and subsequent Phase II ESAs, if necessary, to fully identify and rectify any remaining hazardous conditions including soil contamination from floor drains, fuel storage tanks, past outdoor leak, storage, or spill locations, drywells and other drainage leaching structures, and septic systems and cesspools. Assessments of the potential for the presence of asbestos containing materials (ACM) may also be necessary at some sites

depending on the age of the structure. In addition, developed sites that have not been identified as having specific environmental concerns, will nevertheless be subject to SCDHS sanitary system removal/abandonment standards and practices. Existing fuel storage tanks will have to be cleaned and properly disposed and all demolition debris must be discarded at a facility licensed to accept construction and demolition debris.

(12) The SGPA Plan also provides a few site specific recommendations associated with golf courses, farmlands, dwarf pine barrens, conversions of certain obsolete and intensive land uses, etc.

None of the identified sites or use-specific recommendations of the SGPA apply to land that is in or adjacent to the project Study Area. Aside from the mention of preserving land along the Peconic River, which is previously discussed as being addressed in large part by large tracts of land that have already been preserved, there are no other recommendations that can be construed as directly and specifically applicable to the Riverside Revitalization Study Area.

NYSDEC Freshwater Wetlands and Adjacent Areas

NYSDEC freshwater wetlands and/or their adjacent areas defined as 100 feet upland of delineated wetland boundaries that fall within or adjacent to the Study Area are identified by the Town to be a CEA. These features are generally located:

- north of SR 24 along the northwestern boundary of the Study Area;
- north of SR 24 and across from Suffolk Federal Credit Union between SR 24 and the river;
- south of SR 24, adjacent to the Little Peconic River, near the western boundary of the Study Area;
- adjacent to a small freshwater pond located east of Lake Avenue and its intersections with Pegs Lane and Woodhull Avenue;
- around two small ponds located south of Pond Drive; and
- on the east side of the eastern boundary of the Study Area near Whitebrook Drive.

Figure 4-2 shows the locations of NYSDEC regulated freshwater (and tidal) wetlands in or adjacent to the Study Area.

NYSDEC regulates these areas pursuant to Article 24, "Freshwater Wetlands," Title 23 of Article 71 of the Environmental Conservation Law and its implementing regulations provided in 6NYCRR Parts 663, 664, and 665. The NYSDEC requires the issuance of a freshwater wetlands permit before allowing almost any activity which may adversely impact the natural values of the wetlands or their adjacent areas. Some types of activities that require a permit include:

- construction of buildings, roadways, septic systems, bulkheads, dikes, or dams;
- placement of fill, excavation, or grading;
- modification, expansion, or extensive restoration of existing structures;
- drainage, except for agriculture; and

- application of pesticides in wetlands.

Freshwater wetlands that are regulated by the NYSDEC are also regulated by the Town wetlands permitting requirements. NYSDEC and the Town apply similar wetlands protection techniques. The standards applied are, however, often more stringent when applied by the Town. Common techniques employed to protect wetlands include but are not limited to: minimum wetlands setbacks, non-disturbance buffers (no clearing, digging, dredging, filling, etc.), restrictions on constructing or storing potentially hazardous uses near wetlands, implementation of erosion and sedimentation controls to protect these features during development, etc. These techniques are usually sufficient to protecting these CEAs.

Peconic Bay and Environs

The Study Area is adjacent to the tidal portion of the Peconic River which is part of the greater Peconic Estuary. The Peconic Estuary Program's Comprehensive Conservation and Management Plan identified the Estuary as being within a critical natural resource area (CNRA). CNRAs are described as geographic locations that contain significant biodiversity that warrant an additional level of protection to preserve or safeguard their unique and sensitive ecological and environmental characteristics (Peconic Estuary Program, 2001). This CNRA includes a large expanse of land including property located along the Peconic River in Riverside and Flanders, as well as the southern half of the Peconic River watershed.

Future development should be undertaken in a manner consistent with the spirit, intent and those general recommendations of the 2001 Peconic Estuary Conservation and Management Plan including the management of brown tide, nutrient loading, compliance with the existing TMDL standards, mitigation of pathogens, toxics, impacts on habitats and living resources, critical lands, as well as public education and outreach. Connecting future development to sanitary sewers, promoting the retention of native vegetation and restricting the establishment of fertilizer dependent vegetation, controlling stormwater discharges, preserving areas identified as the RPL (Riverside Parklands) Overlay District, and addressing potential pet waste will all help to reduce nitrogen loading to the Bay, maintain or help to regenerate oxygen concentrations in Bay waters and help in addressing pathogens concerns. Moreover, the overall purpose of the CPB Plan as noted in the Long Island Pine Barrens Protection Act is to provide standards and guidelines that protect the central Pine Barrens - Peconic Bay system which are inextricably connected. See previous CPB Plan and APOD CEA discussions regarding ground and surface water protection and ecological conservation.

Summary

The above described CEAs and the policies that have been assigned to them are very thorough and address the typical concerns that could be raised regarding land redevelopment and development activities in or adjacent to them. Impacts will occur if and as future development and operational activities fail to conform to them, except as such projects may be exempt, waived or modified pursuant to regulatory authority and procedures allowing such relaxation after careful examination and implementation of any necessary mitigation measures. The portion of the Study Area located south of SR 24 is within a Central Pine Barrens Compatible

Growth/CPBOD, APOD, and Central Suffolk SGPA but also contains 47.5 acres that have been duly designated as pine barrens transfer of development rights (TDR) receiving areas. Based on this designation and the potential for at least double density on this land without necessarily connecting to an STP, it appears that past planning and environmental assessments associated with the Central Pine Barrens Comprehensive Land Use Plan, as well as the Town's adoption of implementing regulations under its CPBOD, that at least some additional development density in the area is appropriate and acceptable after consideration of multiple environmental, social and economic factors.

6.2.2 Other Regulated Environmental Districts

New York State Wild, Scenic and Recreational Rivers

As shown in **Figure 4-1**, a portion of the west side of the Study Area, including a few commercially developed parcels located southwest of the traffic circle, the Woodhull Avenue/Pegs Lane subdivision, several small developed single-family residential lots along the south side of Maynard Street, land that is part of the David A. Sarnoff Pine Barrens Preserve, and an adjacent vacant/wooded parcel to the east of the Preserve are located within a New York State (WSRR) "Recreational" area. This WSRR Recreational area does not include land in the Study Area along the Peconic River, but instead is associated with land adjacent to the Little Peconic River tributary, which flows in a northerly direction between the western boundary of the Study Area and the Evan K. Griffing Center to its confluence with the Peconic River at Grangebel Park.

Although WSRR Recreational areas are not CEAs, *per se*, these areas are important natural resource management areas that must be considered as part of this review. The Wild, Scenic and Recreation Rivers Act (Act) is the basis for a statewide program which was created to protect rivers of New York State and their immediate environment for the benefit and enjoyment of present and future generations. That is, many rivers of the State, including sections of the Peconic River, Little Peconic River, and their immediate environments, are said to possess outstanding natural, scenic, ecological, recreational, aesthetic, botanical, fish and wildlife, historical, cultural, archeological and scientific values, and are therefore, worthy of protection and are regulated by the NYSDEC, through its WSRR permitting process (NYSDEC, 2015-b).

In general, WSRR regulations include management, protection, enhancement and oversight of land use and development in these areas. Before a river system permit can be issued by the NYSDEC, the Department must first determine that:

1. The proposed land use or development is consistent with the purposes and policies of the Act and with the provisions of 6NYCRR Part 666;
2. The resources specified in Section 666.2(e) will be protected and the proposed activity will not have an undue adverse environmental impact;
3. No reasonable alternative exists for modifying or locating the proposed activity outside of the designated river area; and
4. Actions proposed to be undertaken by state agencies are designed to preserve, protect or enhance the resources and values of designated rivers.

A review of the proposed standards for the WSRR Recreation section reveals relatively strict requirements, including prohibitions against nonresidential land uses and extensive setback requirements which would trigger the need for variances under the Proposed Action, particularly in the WSRR areas proposed to be RO-1, RO-2, RO-3 and RO-4, which are mixed-use zones (RO-5 is proposed as a primarily residential Overlay Zone).

In consideration of the long established residential nature (large single-family residential subdivision) and commercial uses in the WSRR of the Riverside community, the major network of roads that merge at the traffic circle in the area, the proximity and association with Downtown Riverhead, and the dire need for economic investment and revitalization in the area as demonstrated by several Town plans, a WSRR "Community" designation appears most appropriate for this neighborhood. Such a designation would be consistent with the recently "rezoned" WSRR Recreation area on the north side of the river, just west of the intersection of Peconic Avenue and West Main Street, opposite the County complex and near Downtown Riverhead which has been changed to a "Community" designation. While the existing "Recreational" designation affecting Riverside prohibits industrial, institutional, or commercial uses, the "Community" designation, which is also quite protective of the river in appropriately applied areas, allows controlled industrial, institutional or commercial uses.

The "Community" designation provides greater flexibility to allow the types of uses envisioned by Riverside residents and Town officials and required to address the critical need for economic development in the Hamlet. The criteria for the designation of "Community" WSRR areas are enumerated in Section 666.3 (m) of Part 666 and are summarized as follows:

> "Community" means an area of existing development delineated by DEC as part of the final boundary setting process that has a minimum of 30 acres and, at the time of legislative designation, a minimum of 85% of the lots developed. In addition, the area must have either lot sizes that average ½-acre or less or no less than 40% of the lots developed for industrial, institutional and/or commercial uses.

Using available GIS data it was determined that the portion of the WSRR's Recreational district within the Study Area encompasses a total of 34.2 acres, excluding that portion of David A. Sarnoff Preserve that extends into the Study Area. Within this 34.2 acre area, there are 95 tax lots, which have an average size of 17,913 SF which is considerably smaller (i.e., 18 percent or 3,867 SF smaller) than the maximum $^{1}/_{2}$-acre threshold which is 21,780 SF.

The New York State Wild, Scenic and Recreational River System Act, Title 27 of Article 15 of the E.C.L. legislative designation was enacted in 1987. After review of an aerial photograph of the Riverside community from 1984 (**Figure 6-5**) or three years prior to the legislative designation, it is clear that the area currently encumbered by the WSRR designation was nearly fully developed with 83 of the 95 lots being developed or disturbed. Dividing the total number of lots in the WSRR in the Study Area (95 excluding the Preserve) into the number of developed lots in this same area in 1984 (83) indicates that 87 percent of the lots were developed, thus meeting the minimum 85 percent threshold for a new Community WSRR designation.

It should be noted that while the "Community" designation allows some industrial, institutional, and commercial development, it also is heavily regulated under the WSRR in terms of lot coverage for these uses (10 percent after removal of wetlands, 100-year floodplains and areas containing water); setbacks from the riverbank, the 100-year floodplain, wetlands and tributaries (500 feet), setbacks from public roads (100 feet unless it diminishes the river setback), minimum lot size of 3 acres with a maximum of 30 percent disturbance of new lots; however, institutional, industrial and commercial uses are permitted on existing lots of less than 3 acres if the proposed development meets the other requirements), screening from view of the river, provision of wildlife corridors, water usage, groundwater protection, and open space retention to which future development would have to comply. This level of protection will help to provide considerable protection to the resources of the river and adjacent areas; however, it appears that variances would be required in some instances.

In conclusion, it is not expected that the RO-5 portion of the WSRR will be redeveloped or significantly modified in the future as it is currently built-out with residential uses and any redevelopment under the RO-5 Zone would primarily be residential in nature.[7] The Recreational district, adjacent to long developed land, is however, more consistent with a Community WSRR corridor than a Recreational WSRR corridor and maintaining the current designation would, greatly restrict mixed-used development in the areas proposed as RO-1, RO-2, RO-3, and RO-4 while the excessive setbacks would be prohibitive in terms of allowing redevelopment. For this reason, it is recommended that a Community designation be requested from the NYSDEC to allow for additional flexibility as the area meets the minimum requirements for this designation, would be better designated as such, and would help the Town and Riverside community to work toward its economic redevelopment and revitalization goals if certain relief is provided. If this redesignation to a Community "zone" is not possible, additional variances may have to be sought in the future to allow development.

Suffolk County Comprehensive Water Resources Management Plan

The Suffolk County Comprehensive Water Resources Management Plan (SCCWRMP) was developed by the Suffolk County Department of Health Services in recognition of the importance of developing strategies and actions to address negative trends in water quality, degradation of wetlands and seagrass beds, diminished shellfish and fisheries, and to address coastal resiliency and sea level rise. The goals of the SCCWRMP include goals for groundwater resource management, drinking water supply goals, surface water resource management, and wastewater management.

The critical findings of the SCCSWRMP include:

1. Downward trajectory of water quality, due to contamination from nitrogen, volatile organic chemicals, pesticides, pharmaceuticals and personal care products.
2. Surface water impairments due to excess coliform bacteria and nitrogen have caused many of the of the water bodies surrounding Suffolk County to be designated as impaired

[7] Permissible uses in the RO-5 Overlay Zone include home/home professional office, two-family residence, bed and breakfast, educational use, agriculture and utilities.

by the NYSDEC. Brown tide algae invasions have obliterated shellfish habitat. There was a loss of 18-35% of tidal wetlands and seagrass beds have been reduced by 90%.

3. Nitrogen from unsewered areas threatens water quality and human health.

The Plan also addresses sea level rise, and the implications for infrastructure, such as stormwater and wastewater collection, disposal systems, and water supply, and the need to improve coastal resiliency. Specific management actions, potential partners, and funding for implementation to achieve the goals and objectives are discussed in the SCCWRMP. Approaches for mitigating these concerns are discussed in detail throughout **Section 3.0**, **Section 4.0**, and **Section 6.0** of this DGEIS as it relates to stormwater, erosion and sedimentation control, wastewater collection, treatment, and disposal, groundwater, surface water and wellhead protection, and other facets of this review.

6.3 Mitigation Measures

- Future development must comply with all standards and requirements of the APOD, CPBOD, NYSDEC freshwater wetlands permit conditions, and be consistent with the guiding principles and recommendations of the Central Pine Barrens Comprehensive Land Use Plan and the Peconic Estuary Conservation and Management Plan and area TMDL standard, except as may be waived pursuant to applicable laws and procedures after review and consideration by the agency or board overseeing the review and having authority over consistency and compliance.
- Areas that may be fertilized in the future (15 percent of a site) should be required to incorporate the use of Best Management Practices to further reduce the level of fertilizer used to reduce nitrogen loading. Covenants and restrictions or the conditions of duly executed filed easements should be used to formalize such agreements and assist in any necessary enforcement actions.
- Existing private wells on redevelopment sites should be properly abandoned to ensure that they do not act as direct conduits for pollutants from the surface to be discharged to groundwater.
- All on-site sanitary systems (if proposed), dry wells and other potential pollutant sources shall be setback from nearby private wells in accordance with SCDHS setback requirements.
- All future development that exceeds Article 6 density should connect to an STP.
- All future development should connect to the public water supply.
- See also mitigations prescribed under **Section 3.3**, "Geology, Soils and Topography" (erosion and sedimentation controls) **Section 4.3**, "Water Resources" (stormwater controls), and **Section 5.3**, "Ecological Resources" (mitigation for protecting wildlife and wildlife habitats) of this Generic DEIS.

  In regard to clearing:
  - Ensure that not more than 13.09 acres of existing natural vegetation is removed within the Central 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 Riverside 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:

- Purchase 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 pine barrens natural vegetation;
- Invasive species removal and control to increase pine barrens natural vegetation;
- ATV control, security and enforcement to ensure that natural vegetation impacts do not occur;
- Management programs that improve the quality of pine barrens vegetation (e.g., fire management, pine beetle management, etc.); and
- Other potential programs that benefit natural vegetation in the Central Pine Barrens within 5 miles of Riverside.

- Ensure that existing quality contiguous natural pine barrens habitat is retained in the Study Area through design.
- Advance wastewater treatment opportunities, nitrogen removal, stormwater management, other technologies that will improve water 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).

- Request a Community Wild, Scenic and Recreational Rivers designation in the Recreational area mapped along the western boundary of the Study Area or maintain the Recreational designation and comply or seek variances upon any redevelopment.
- New York State Coastal Consistency reviews may be required for future projects proposed north of SR 24 in the future if they require State or Federal Permits.

7.0 LAND USE, ZONING AND PLANS

7.1 Existing Conditions

This section describes existing land use and zoning and provides a summary of relevant land management plans and zoning regulations affecting the Riverside community. A field reconnaissance and existing conditions inventories and analyses were performed by NP&V staff to provide the bases for identifying potential impacts from the Proposed Action and developing appropriate impact avoidance and mitigation strategies. These land use and zoning investigations were especially important as the Proposed Action involves Official Zoning Map and Zoning Code amendments that will affect the types of land uses to be permitted in the future, as well as the dimensional zoning requirements and form-based design standards that will guide future development and redevelopment and revitalize the Riverside community.

7.1.1 Land Use

There are several basic characteristics that define land use conditions in the Riverside community. These include the Hamlet's close association with downtown Riverhead; the clear and present need for eliminating poverty, building vacancies, and blight through local investment, economic development, job creation, and area revitalization; the area's abundant and critically important natural resources and preserved open spaces; existing haphazard development patterns, the overall poor condition of the man-made environment, and limited aesthetic character; the multitude of zoning districts and the mix of land uses and conditions they have fostered; and a general inability for the community to function as a cohesive, successful and sustainable community.

The Hamlet of Riverside (i.e., Riverside Census Designated Place) encompasses a total land area of 5.2 square miles of which 5.1 square miles is uplands and 0.1 square miles is underwater land, while the Riverside Study Area, itself, consists of 467.6 acres or about 0.73 square miles. The communities of Riverside and downtown Riverhead are closely related by several factors that go beyond their obvious geographic proximity and sharing of the Peconic River and its associated resources. For example, Riverside is served by the Riverhead School District and Riverhead Fire District, it falls within the Riverhead postal district, and residents of the two communities commonly work, shop, and recreate at the same places. In fact, many facilities that are located within Riverside, such as the Suffolk County Jail, County office facility, and traffic circle are routinely mistaken as being within the Town of Riverhead. The effect of this relationship, therefore, is arguably, the absence of the Hamlet's own unique identity and sense of place.

Development along SR 24 and portions of several other major roads that merge at the traffic circle includes mixed commercial, industrial, residential, institutional land uses, vacant/boarded-up buildings, and vacant land. Since development along the SR 24 corridor is spatially intermittent and not compact, is inconsistent in terms of use (e.g., commercial building next to a single-family home next to a vacant lot, next to a vacant building, etc.), buildings tend to be single-story rather than two or three story structures, there are no significant business anchors, etc., the business district does not function as a compact, walkable and vibrant downtown or hamlet center.

Developed land outside the immediate corridor area consists primarily of an intermittent mix of medium to high density/small lot single-family residential neighborhoods and mobile home parks, vacant lots or buildings, light industrial development, and scattered institutional facilities. The general land use and development pattern in the Study Area is shown in **Figure 7-1** and is summarized as follows:

Single-family residential neighborhoods are present primarily south of SR 24 along the eastern and western boundaries of the study area as well as some areas adjacent to the southern boundary. Specifically, these areas include land along:

- Woodhull Avenue, Pegs Lane, Lake Avenue (CR 63), and Maynard Street to the west;
- Ludlam Avenue, Pebble Way, Phillips Avenue, White Brook Drive, Brown Street, and Goodridge Avenue, to the east.
- Old Quogue Road, Vail Avenue and Pine Street.
- There are also some small pockets of single-family development or individual isolated house lots scattered throughout the Study Area.

Manufactured home parks are found at the south end of the Study Area off of Riverleigh Avenue (CR 104) and on the north side of SR 24 along the Peconic River, opposite Enterprise Zone Drive and the Peconic Mini Storage facility. In total, there are three mobile home parks in the Study Area. The largest is the Riverwoods/MacLeod community located at the south end of the study area on the west side of Riverleigh Avenue. The two smaller mobile home parks are located adjacent to one another along the River, one of which has been identified as the Parkview community.

Commercial development exists primarily around the traffic circle, along Riverleigh Avenue and Lake Avenue (near the traffic circle) and at intermittent sites along SR 24. Commercial uses include but are not limited to several gasoline filling stations, convenience stores, a beverage distributor, hotel, credit union, a fast food restaurant, deli, a graphics business, billiard table sales and service business, antique shop, hair salon, barber shop, scuba diving equipment retailer, auto sales, auto repair, and other small miscellaneous retail and personal services businesses. A few vacant commercial buildings were also noted.

Industrial land uses are very limited and are relatively dispersed in the Study Area. The three largest developed industrial sites in the Study Area are located within or adjacent to the Southampton Enterprise Zone Subdivision, the largest of which is used as a mini storage facility, and the other two are undetermined industrial uses. Other industrial uses in the Study Area include a glass and mirror shop (south side of SR 24), an auto salvage yard and junk yard (along Old Quogue Road) and a few small sites that now contain vacant buildings. Several industrial lots remain undeveloped. Auto repair is also sometimes considered an industrial use.

Institutional land uses are widely dispersed throughout the Study Area and include: Phillips Avenue Elementary School (off of Phillips Avenue south of the Southampton Enterprise Zone subdivision) which is the largest institutional use in the Study Area; Southampton Head Start (off of SR 24, west of Suffolk Federal Credit Union); several places of worship (one on the west side of Riverleigh Avenue, one on the west side of Old Quogue Road, and another on the north side

of SR 24); a social/fraternal lodge (Masonic Temple) (on the north side of SR 24 and west side of the State recharge basin), and a State Police barracks (Riverleigh Avenue, approximately 500 feet southeast of the traffic circle).

Vacant land is located primarily north of SR 24 adjacent to the river, within the Southampton Enterprise Zone industrial subdivision, on a long wooded parcel (SCTM: 900-139-3-10.2) adjacent to the west of the subdivision which extends between SR 24 and Old Quogue Road, and within an undeveloped six-lot residential subdivision that is adjacent to Lot 10.2. In addition, there are a number of very small vacant lots scattered throughout the single-family residential neighborhood at the center of the Study Area. Vacant lots are publicly or privately owned and several appear to be owned by adjacent property owners to make a larger usable lot. The current and future disposition of some of the vacant publicly-owned land in the Study Area is unknown or not currently available and therefore is not currently classified as parks or open space. See ownership map **Figure 7-2**. Vacant buildings are also present in the Study Area including, but not limited to, a former gasoline station, what appears to have been a warehouse, and some former commercial uses.

Parks, open space, and wildlife preserves are prevalent throughout the Riverside community, especially outside and adjacent to the Study Area and serve to create well-defined boundaries for the hamlet. Nevertheless, several properties within the Study Area comprising an estimated 57.64 acres have also been preserved for one or more of these purposes. Preserved land within the Study Area includes two large Town-owned parcels located north of SR 24 on the east side of the Study Area; Town-owned land at the northeast corner of the intersection of Ludlam Avenue and Old Quogue Road (Ludlam Avenue Park); County-owned land situated southeast of the intersection of Maynard Street and Lake Avenue (CR 63) which contains a freshwater pond and is contiguous to the David A. Sarnoff Pine Barrens Preserve; and Town-owned land located at the northeast corner of the traffic circle between Peconic Avenue and Nugent Drive (CR 94).

Transportation land uses include State and County arterial highways and Town streets as well as three lots containing or designated as stormwater recharge basins, including two Town-owned lots, one located on the west side of the Southampton Enterprise Zone Subdivision and one located off of Pebble Way, and a NYSDOT recharge basin on the north side of SR 24, adjacent to the Masonic Temple. The Riverside portion of SR 24 is an important multifunctional roadway. The road is as a regional arterial serving the area's local commercial and residential uses and facilitates waterfront access. Development along this roadway has faced many challenges, particularly in light of the recent recession, which in turn has resulted in a high number of vacant and derelict buildings throughout the corridor and surrounding area. **Table 7-1** provides the total number of lots and total acreage for each general land use classification.

Table 7-1
EXISTING LAND USE

Land Use	Number of Parcels	Total Acres	Proportion of Study Area (%)
Residential	364	211.7	45.28
Commercial	40	37.3	7.98
Industrial	10	8.0	1.71
Institutional	15	28.8	6.16
Transportation	9	7.7	1.65
Streets and Rights-of-Way	---	49.0	10.48
Dedicated Parks and Recreation	7	38.7	8.28
Vacant Land	95	86.3	18.46
Surface Waters[(1)]	2	[(1)]0.0028	[(1)]0
Total	**542**	**467.5**	**100%**

Source: Town of Southampton Division of Geographic Information Systems and New York State Department of State

Notes:

1. These figures represent surface water features that are "parcelized." Small ponds that are located on a larger parcel would be classified according to the primary use of the parcel (e.g., vacant). In total, there are 6.5 acres of open surface waters within the ROD boundaries. Any differences in total acreage due to rounding.

Development patterns in Riverside have remained relatively stagnant with the exception of the construction of the Suffolk Federal Credit Union at the corner of SR 24 and Enterprise Zone Drive approximately seven or eight years ago, a redevelopment that involved the construction of a convenience store, and more recent development on two lots within the Southampton Enterprise Zone industrial subdivision that are now developed with light industrial uses. Several other lots within this subdivision remain vacant, which may be due in part to the recent recession and a general decline in industrial development in the Town and throughout the northeastern United States. The State Police barracks at 234 Riverleigh Avenue is also a recent addition and provides a greater police presence in the community. Many lots in the Study Area remain vacant, some of which are publicly owned as described previously. The State acquired land on the north side of SR 24 approximately 10 years ago for use as a stormwater recharge basin and the County acquired other nearby land along the river for parkland or open space preservation. The more recent County land acquisitions along the river were once part of a proposal for a large hotel, catering facility and restaurant which never came to fruition.

Land Uses with Past or Present Site Contamination

A preliminary inventory and assessment of properties that may have been adversely affected by past land use activities or that may currently pose risks to the environment due to site uses or known handling, storage, or disposal of hazardous materials was conducted by NP&V's Environmental Site Assessment specialists. This investigation included a review of a comprehensive 2015 environmental database report prepared by Toxics Targeting, Inc. for the

Study Area, as well as a follow-up preliminary site identification and land use inventory performed by NP&V. The Toxics Targeting database includes information from 21 different environmental databases which identify past and present environmental issues and the current cleanup status of known materials releases. Issues considered by the report include but are not limited to hazardous materials spills, leaking above- and below-ground fuel storage tanks, known brownfield sites, waste disposal treatment sites, toxic materials storage and discharge areas, hazardous conditions cleanup locations, air pollutant dischargers, and past environmental violations. Based on a review of the Toxics Targeting database report and a subsequent field inventory and review of building records, the following 19 sites are identified as having past or present environmental issues. **Figure 7-3** shows the locations of these sites based on the site identification number provided with each description. **Appendix B** contains the Brownfield Opportunity Area Nomination Study which provides additional detail regarding sites of environmental concern which are summarized below.

EC-1 **89 Peconic Avenue** (Peconic Paddler). Listed as a petroleum bulk storage (PBS) facility and as being the subject of a closed spill incident that affected groundwater. Listed on Sanborn Maps as a filling station with four tanks on-site. **Moderate Risk** due to spill incident and previous site use as a gas station.

EC-2 **7 Peconic Avenue** (Valero Service Station). Listed as a PBS facility, a Resource Conservation Recovery Act (RCRA) Generator and being subject to closed spill incidents that impacted groundwater. Listed on Sanborn Maps as a filling station with tanks present (1969). Property has a **High Risk** due to historical use and recorded spill incidents that impacted groundwater.

EC-3 **8 Lake Avenue** (Shell Service Station). Listed as a PBS facility and being the subject of several closed spill incidents, some of which have impacted groundwater. Listed on Sanborn Maps as a filling station with tanks present (1969). **High Risk** due to history of spills and property use.

EC-4 **30 East Moriches Road** (Former Riverboat Diner). Listed as being the subject of a closed spill incident. Listed on Sanborn Maps as a Restaurant (1969). Property has a **Low to Moderate Risk** due to former property use as a food preparation establishment. Sanitary discharges could present an issue.

EC-5 **11 Flanders Road** (Vacant Getty Station). Listed as being a PBS facility and RCRA Generator as well as being the subject of several closed spill incidents. Several tanks reported to have been removed but one tank may remain. Listed on Sanborn Maps as a filling station and auto repair with tanks present (1969). **High Risk** due to former use and impacts to groundwater reported.

EC-6 **35 Flanders Road** (Slepboy Property). Subject of a closed spill incident that occurred in 1990 that affected groundwater and listed as a PBS facility and RCRA Generator. Formerly listed on Sanborn Maps as a dwelling (1969). **Moderate Risk** event though spill closed issues related to adjacent vacant Getty gas station may present other issues including soil vapor intrusion.

EC-7 **104 Flanders Road** (Mildred Thomas Residence). Active Spill for incident that occurred in 2006. Unknown quantity. Historically listed as a dwelling on Sanborn Maps. **Moderate Risk** since still an active spill but limited to soil.

EC-8 **113 Flanders Road** (Riverhead Precision Auto Collision). Listed as a PBS facility and RCRA Generator. Historically listed as an auto repair facility on Sanborn Maps. **Moderate Risk** due to property use.

EC-9 **310 Riverleigh Avenue** (Riverhead Auto Supply & Universal Service of America). Listed as a RCRA Generator. Property is now vacant with only concrete slab foundation of the building present. Historically listed as an auto sales and service facility on Sanborn Maps. **Moderate Risk** due to former property use.

EC-10 **454 Riverleigh Avenue** (Best Price Auto Repair and Tires). Listed as a PBS facility and RCRA Generator. Listed on Sanborn Maps as previously being occupied by dwellings. **Moderate to High Risk** due to property use.

EC-11 **500 Riverleigh Avenue** (Riverhead Trailer). Formerly Dyer Motors. Listed as a PBS facility and RCRA Generator. Listed on Sanborn Maps as being occupied by dwellings. **Moderate Risk** due to former site use.

EC-12 **568 Riverleigh Avenue** (Woodward Residence). Listed as an active spill incident that occurred in 1999. Resulted in the release of 250 gallons of fuel oil that impacted soil. Listed on Sanborn Maps as historically being occupied by dwellings. **Moderate Risk** due to active spill incident and quantity of product released. However, older spill and may be limited.

EC-13 **182 Old Quogue Road** (Juniors Auto Salvage). Active junk yard that was the subject of a closed spill incident. No Sanborn Map provided. **High Risk** due to property use and poor housekeeping practices.

EC-14 **219-223 Flanders Road** (Apartment Complex). Active Spill that occurred in 2007. Unknown quantity. No Sanborn Map provided. **Moderate to High Risk** since spill still active but seems to be limited to soil. However soil excavated to 12 feet and strong odor reported to still be present.

EC-15 **301 Flanders Road** (Shamrock Gas Station). Listed as a PBS facility and being the subject of a closed spill incident. No Sanborn Map provided. **High Risk** due to use.

EC-16 **Intersection of Ludlam Ave. and Flanders Road** (was an Ocean Gas Station now is a Valero Gas Station). Active spill that occurred in 1998. Also the subject of several closed spills and listed as a RCRA Generator as well as PBS facility. Groundwater reported to have been affected and elevated levels of MTBE in on-site monitoring wells. Site also a risk due to property use. May have resulted in a soil vapor intrusion issue at home located at 404 Flanders Road. No Sanborn Map provided. **High Risk** due to use and active incidents that affected groundwater.

EC-17 **117 Ludlam Avenue** (Cedar Graphics, Inc.). Listed as a PBS facility and a RCRA Generator. Property currently vacant but appears to have been recently used as a church.

No Sanborn Map provided. **Moderate to High Risk** due to former use and regulatory listings.

EC-18 97 Old Quogue Road. This property is developed with a single family home that faces the street, and a fence which partially obstructs views into the yard. The front of the lot is paved and during inspections was used by several cars. In the rear yard area multiple vehicles are stored. While there are no records of environmental contamination, redevelopment of this site may be delayed due to a need for environmental remediation from past land uses.

EC-19 48 Old Quogue Road. This property is developed two and a half story building that was reportedly used for auto repair with double garage doors on the ground level and reported to have multifamily housing above. There is a small boarded up building towards the street as well. The large building is currently boarded up and according to SC Department of Economic Development and Planning has been condemned by the Town of Southampton and is tax delinquent and being considered under their TDR program. The program seeks to transfer properties that have become tax delinquent for redevelopment and has Phase I ESA and if necessary Phase II Testing completed make properties more palatable for the development community to purchase, clean up and redevelop. However, funds have yet to be made available for a Phase I ESA for this particular site.

EC-20 98 Old Quogue Road. This ½ acre property is developed with three one story buildings and the remainder of the site is generally paved for outdoor storage of vehicles and equipment. The property is currently used as an automobile towing facility. NP&V has classified the property as having **Moderate to High Risk** due to property use. Prior to redevelopment, a Phase I ESA would be appropriate to determine whether testing is required.

7.1.2 Zoning

Zoning Districts

Figure 7-4 shows the existing zoning pattern in the Riverside Study Area. Currently, there are 13 zoning districts regulating land use within the Study Area, including five single-family residence district, six commercial, one light industry, and one open space conservation district. **Table 7-2** provides a list of the existing zoning districts, the total number of lots in each zone and total acreage by zone.

Table 7-2
EXISTING ZONING

Zoning	Number of Parcels	Total Acres[1]
Residential Districts		
Residence-15 (R-15)	365	203.8
Residence-20 (R-20)	43	24.9
Country Residence 40 (CR-40)	1	11.2

Zoning	Number of Parcels	Total Acres[1]
Mobile Home Subdivision (MHS-40)	2	57.3
Residence-80 (R-80)	18	30.6
Business Districts		
Highway Business (HB)	47	30.1
Village Business (VB)	55	28.2
Shopping Center Business (SCB)	6	6.2
Resort Waterfront Business (RWB)	7	19
Office Business (OD)	1	1.5
Motel Business (MTL)	1	4.9
Industrial Districts		
Light Industry (LI-40)	29	45
Parks, Open Space and Conservation Districts		
Open Space and Conservation (OSC)	4	4.8
Total	**579 (542 tax lots, 37 of which are split zoned)[(2)]**	**467.5**

Source: Town of Southampton Division of Geographic Information Systems and New York State Department of State

Notes: 1 - Includes abutting streets and ROWs

2 - The total number of tax lots in the Study Area is 542; however, 37 of these lots are split zoned and are double counted, thereby making the total lots by zoning district artificially high. Differences in total acreage due to rounding.

Single-family residential zoning districts cover more land than any other zoning classification in the Study Area and are found along the eastern (R-15), western (R-20 and R-15), and southern (MHS-40 & R-15) Study Area boundaries, as well as near the center of the Study Area (R-15), and in the northeastern corner of the Study Area (R-80 along the river and R-15 along SR 24). The R-15 and R-20 zoning districts allow lots as small as 15,000 and 20,000 square feet, respectively, and are the highest density single-family residential density zones in the Town, while the CR-40 requires lots to be 40,000 square feet. The MHS-40 district requires a minimum lot size for a manufactured home park of 40,000 square feet, but the zoning regulations require only that the units be separated a distance of 15 feet, therefore resulting in a higher density of residential units than other zoning districts. The area zoned CR-40 has been acquired by the State and preserved as open space and wildlife habitat.

Commercial zones in the Study Area are found near the traffic circle, along the north ends of Lake Avenue and Riverleigh Avenue, and along SR 24 and include the following districts: Highway Business (HB), Village Business (VB), SCB (Shopping Center Business), Resort Waterfront Business (RWB); Office Business (OD); and Motel Business (MTL). The RWB zone is located on the north side of SR 24 along the Peconic River. Land within the Study Area that is within the RWB is owned by Suffolk County.

Industrially zoned land (LI-40, Light Industry) is found along Enterprise Zone Drive and the south side of SR 24 near the center of the Study Area and includes land occupied by the

Southampton Enterprise Zone industrial subdivision, Peconic Mini Storage, Suffolk Federal Credit Union (SFCU) and Southampton Head Start.

Open Space Conservation (OSC) zoned land is located at the south end of the Study Area, north of the intersection of Ludlam Avenue and Old Quogue Road at the site of Ludlam Avenue Park. **Table 7-3** identifies each zoning district in the Study Area, the general location and distribution of each district, and types of as-of-right uses that are permitted.

Table 7-3
ZONING DISTRICTS, PATTERNS, AND TYPES OF USES PERMITTED IN THE RIVERSIDE STUDY AREA

Zoning District	Location & Distribution	Permissible As-of-Right Uses[1,2]
R-15	w/o study area along Woodhull Ave. and Pegs Ln.; n/o SR 24 opposite SH Head Start & Ludlam Ave; w/in central & south central portion of study area	Single-family homes; lawfully existing dwelling; parks, play-grounds and recreational facilities; fire station or municipal office; government building; schools; agriculture; nurseries
R-20	along part of Pebble Way east to eastern study area boundary; this district creates several split zones	Single-family homes; lawfully existing dwelling; planned residential development; residential density incentive; parks, play-grounds and recreational facilities; schools; agriculture; nurseries
R-80	n/o SR 24 at northeast corner of study area, including mobile home park	Single-family homes; conversion of Single-family home to 2-family; lawfully existing dwelling; fire station or municipal office; government building; planned residential development; residential density incentive; parks, play-grounds and recreational facilities; schools; agriculture; nurseries
CR-40	Land owned by County containing small pond e/o Lake Ave. s/o Maynard St.	Single-family homes; lawfully existing dwelling; fire station or municipal office; government building; planned residential development; residential density incentive; parks, play-grounds and recreational facilities; schools; agriculture; nurseries
MHS-40	Southwest corner of study area at the Riverwoods/MacLeod mobile home park	Single-family homes; lawfully existing dwelling; mobile homes; parks, playgrounds and recreational facilities; nurseries
HB	Around traffic circle; s/o SR 24 e/o Old Quogue Rd. & w/o SH Head Start; s/o SR 24 between Peconic Mini Storage and Ludlam Ave.; along Riverleigh Ave. between VB & SCB zones	Lawfully existing dwelling; restaurants; wholesale; parks, playgrounds and recreational facilities; library and museum; fire station or municipal office; government building; schools; some retail; some personal services; agriculture; and others
RWB	n/o SR 24 s/o Peconic River near center of study area	Lawfully existing dwelling; church/religious institution; library or museum; park, playground and recreational facility; fire station or municipal office; government building; schools; agriculture; landscaping services; and others; hotels, waterfront businesses and certain water dependent businesses &

Zoning District	Location & Distribution	Permissible As-of-Right Uses[1,2]
		uses are permitted by SE only
OD	s/o HB district at traffic circle between Lake Ave. & Riverleigh Ave.	Office; restaurant; antique store; lawfully existing dwelling; church/religious institution; library or museum; parks, playgrounds and recreational facilities; fire station or municipal office; government building; schools; agriculture; and others
MTL	s/o OD district described above, near traffic circle	Single-family detached home; restaurant; church or other religious institution; library or museum; social club; parks, playgrounds and recreational facilities; fire station or municipal office; government building; schools; agriculture; and others; motels and hotels by SE only
VB	e/o traffic circle & e/o HB, OD & MTL zones	Lawfully existing dwelling; office; retail; restaurant; some personal services; church or other religious institution; library or museum; social club; parks, playgrounds and recreational facilities; fire station or municipal office; government building; schools; landscape or horticulture; and others
SCB	Both sides of Riverleigh Ave. ne/o corner of Riverwoods	Lawfully existing dwelling; church or other religious institution; retail; office; restaurant; library or museum; social club; parks, playgrounds and recreational facilities; fire station or municipal office; government building; schools; some services; and others
LI-40	Southampton Enterprise Zone Industrial Subdivision, SFCU, SH Head Start, and Peconic Mini Storage properties	Lawfully existing dwelling; fire station or municipal office; government building; bus passenger shelter; public utilities; agriculture; animal husbandry; landscaping/ horticulture; offices; industry; miscellaneous wholesale, retail, and some service
OSC	South end of study area e/o Old Quogue Rd. & w/o Ludlam Ave. at Ludlam Avenue Park	Land in public and private ownership used for golf courses, tennis courts, nature preserves, hunting preserves, parks, recreational areas and beach areas

Notes:

1. Does not include special exception uses or permissible accessory structure uses. See Town Code Sections 330-10, Residence Table of Dimensional Regulations; 330-33, Commercial Table of Dimensional Regulations; and 330-38, Industrial Table of Dimensional Regulations at http://www.ecode360.com/8700216 for full list of permissible, SE and accessory uses. OSC included in Residential Districts Table.
2. Includes all as-of-right residential and OSC uses and general classes of uses for commercial and industrial zones. The full list of commercial and industrial uses are available as noted above.

The dimensional standards for the Study area's 13 zoning districts are quite variable with minimum lot sizes ranging from 12,000 SF for the OD to 220,000 SF for the SCB; lot coverage standards ranging between 10 percent for the R-80 and 70 percent for the VB; and maximum building height standards that range from 32 feet and two stories for residential zones, 35 feet

and two stories for the business districts, and 40 feet and three stories for the LI-40 zone. There are no dimensional standards for the OSC. A summary of the existing dimensional standards for the 13 standard zoning districts in the Study Area are provided in **Appendix H**.

Town Overlay Districts

Land located south of SR 24 is also within two Town overlay districts: the "Aquifer Protection Overlay District" (APOD) and the "Central Pine Barrens Overlay District" (CPBOD). An overlay zoning district is a zoning tool that superimposes an additional "layer" of development standards or restrictions beyond the existing "underlying" zoning requirements. These districts are defined geographic areas shown on a zoning map and are commonly applied to locations that need an additional measure of protection, such as areas containing important environmental resources (e.g., groundwater supplies, wetlands, agricultural soils), or in areas that compel additional consideration due to potential development issues (e.g., steep slopes, wetlands, etc.).

The Town has classified the APOD and CPBOD as "Critical Areas" pursuant to Section 157-10, "Critical areas," of the Southampton Town Code and Section 617.14 (g), "Individual agency procedures to implement SEQR" for Critical Environmental Areas ("CEAs"). **Section 6.0** of this Generic DEIS discusses CEAs, including the APOD and CPBOD and examines their specific requirements in detail.

A third overlay district, the Tidal Wetlands and Ocean Beach Overlay District ("TWOBOD"), applies to the tidal wetlands on the north side of SR 24 along the tidal portion of the Peconic River (see "high marsh," "intertidal marsh," and "littoral zone" depicted on the wetlands map identified as **Figure 4-2**). The overlay district is predicated on the recognition that tidal wetlands and ocean beaches are unique and relatively scarce geographic environments that make possible the ecological system necessary to propagate finfish and shellfish for food, recreation, and the fisheries industry; provide the natural habitat for migratory waterfowl; maintain the fundamental scenic character and recreational opportunities that support tourism; perpetuate a high quality of life for year-round residents; and most importantly to ensure that these interests are maintained. Chapter 330, Article VIII of the Southampton Town Code provides the requirements of this overlay district which can be summarized as follows:

> A. No building other than a government facility shall be constructed or maintained on or in a public tidal wetland.
>
> B. No structure or floating facility, including regular or permanent moorings, shall be constructed or maintained or used for living quarters on or in a public tidal wetland, except as a permitted accessory use to an adjoining on-shore parcel of land or lot, a governmental facility or other facility only when found necessary to protect the natural environment from excessive erosion, silting or an imbalance in the ecological system of the tidal wetlands, after approval by the appropriate public agencies and the Trustees of the Freeholders and Commonalty of the Town of Southampton, and except for a fishing structure, duck blind and permanent mooring established in approved areas by the Trustees of the Freeholders and Commonalty of the Town of Southampton.

C. Where a private landowner presents to the Town a claim to title of lands within a tidal wetland area, he shall consent to Town inspection of such lands so that such tests and investigations as may be considered appropriate by the Town may be made. The Town shall establish whether or not such a title is satisfactory within 120 days of receipt of such claim. Where such title is determined to be satisfactory, such a private landowner may fill not more than 10 percent of the required minimum lot area in the applicable upland district in which such property is located for a building site, and further provided that the location of such fill shall have been approved by the Trustees of the Freeholders and Commonalty of the Town of Southampton as that which will have the least impact on the ecological system of the tidal wetlands, and also provided that it shall have the approval of all other public agencies having jurisdiction.

D. Channel construction in the tidal wetlands shall be limited to only such channels as are necessary to provide minimum boat access to contiguous upland areas and then only if no suitable substitute structure can be used for such access that would have a lesser impact on the ecological system of the tidal wetlands as established by the Trustees of the Freeholders and Commonalty of the Town of Southampton. No such facility shall be designed or used for any purpose incompatible with standard district regulations applicable to the adjoining onshore land.

E. Bulkheads shall be prohibited in all tidal wetlands except those in the resort and Waterfront Business District or when found necessary to protect the natural environment from excessive erosion, silting or an imbalance in the ecological system of the tidal wetlands after approval by the appropriate public agencies and the Trustees of the Freeholders and Commonalty of the Town of Southampton.

Tidal wetlands are subject to Town and NYSDEC wetlands requirements and may be subject to federal wetlands permits if navigable waters are affected.

Parking Standards

Off-street parking standards in the Town of Southampton are regulated in accordance with Sections 330-92 through 330-101 of the Town Code. The Schedule of Parking Requirements, which dictates the minimum number of parking spaces which shall be provided for residential or nonresidential uses, is identified in Sections 330-94 and 330-95, respectively. The schedules require a minimum number of parking spaces that are conventionally required for a development site. However, the parking regulations are flexible in that Section 330-100 allows the Planning Board (or Zoning Board of Appeals) to waive the minimum parking requirements based on certain findings and conditions which are generally as follows:

- The Planning Board determines that a proposed land use, building or structure is adequately served by existing or proposed public parking facilities, in whole or in part.
- The Planning Board determines that dedication of land or an easement is desirable to facilitate improvement of existing or proposed public parking facilities and the dedication of land or easement is voluntarily and unconditionally offered to the Town for that purpose. The off-street parking requirements may be waived in whole or in part. No off-street parking fee is required to be paid.
- The Planning Board finds that a proposed use's parking needs do not necessitate the construction of additional parking. The site plan must show sufficient spaces reserved for future parking

requirements with the combined number of spaces being not less than that required by the zoning, and in all cases at least 2/3 of the number of required parking spaces.

- The Planning Board can allow shared use of off-street parking between adjoining sites, subject to conditions.
- The Planning Board can allow shared parking where it determines that a proposed development consisting of two or more uses located on a single and separate parcel will generate different hourly, daily and seasonal accumulations of parking demand due to the varied hours of operation of each use and frequencies of customer and employee occupancy of available parking spaces, but at least 2/3 of the number of required spaces shall be provided.
- The Planning Board determines that the off-street parking requirements of a proposed development can be met by the construction of new off-street parking spaces or the use of an existing off-street parking area located on a single and separate parcel within 500 feet of the proposed development. The Planning Board may approve a site plan requiring the present construction of a lesser number of spaces, but at least 2/3 of the number of required parking spaces shall be provided on the proposed development site.

Where a parking waiver has been granted by the Planning Board for an application involving property in the VB or OD zoning districts, the applicant must pay a fee of $2,000 per parking space for each space so waived. Also, the Zoning Board of Appeals has the authority to grant a variance from the parking requirements, in whole or in part.

7.1.3 Plans

The Town and its consultants have conducted or overseen numerous planning studies over the past several decades that have recognized the need for redevelopment and revitalization of the Riverside community. Recommendations of these plans focus on redevelopment and place emphasis on creating a more compact, physically integrated, economically sustainable centralized, mixed-use hamlet center. The following is a chronological outline of previous plans and land use studies that address or specifically target all or part of the Riverside community. Environmental resource protection plans are addressed in **Section 6.0** of this Draft GEIS.

- 1970 Town of Southampton Master Plan;
- 1999 Comprehensive Plan Update ("Southampton Tomorrow");
- 2004 Flanders/Riverside/Northampton Revitalization Study;
- 2008 Riverside Hamlet Plan;
- 2009 Riverside Urban Renewal Plan (including input from the 2006 Blight Study);
- 2011 Suffolk County Comprehensive Plan 2035

Town of Southampton Master Plan (McCrosky-Reuter, 1970)

The 1970 Master Plan established long-term Town-wide planning recommendations. The following excerpts from the Master Plan summarize its recommendations for the Riverside community:

- The Master Plan of Future Land Use…depicts an area predominantly residential [in Riverside] with a business and governmental center located at Riverhead.
- Residential development near [Riverhead's downtown] will be the densest in order to establish a cohesive neighborhood offering various housing types and accessibility to shopping, business, transportation and jobs, and…nearby utility services.
- In the case of the Riverside business district, which stretches along both sides of Riverhead-Hampton Bays Road and along both sides of Peconic Avenue north to the Peconic River, there is need for a major land use redevelopment to improve the traffic circulation [most specifically the traffic circle], off-street parking, and the general quality of the district. This redevelopment should also include programs for housing and neighborhood improvements.
- Since [the existing and future hamlet business districts, including Riverside] are centrally located with respect to the principal centers of residential development, existing and proposed, the Community Master Plan emphasizes their expansion rather than the creation of major new centers. As a result of the smaller parcels in these older Village Business areas, increased off-street parking facilities and truck loading areas will be needed to meet future demands. It is anticipated that, in the unincorporated areas, the town must take the initiative due to the limited size and poor arrangement of land parcels. This will make it possible to provide coordination of layout, access points and overall design of improvements and landscaping.
- As noted in the Building and Environmental Condition section of the Surveys and Analyses Report, the area of blight has fairly extensive spread and will require concerted effort by several levels of government and private owners together with support from the community at large.

The Master Plan also recommends expanding or preserving open spaces in the area for parks and groundwater protection and suggests various road improvements including modifications to the traffic circle.

Comprehensive Plan Update ("Southampton Tomorrow") (Land Ethics, 1999)

The 1999 update to the 1970 Master Plan is the most complete revision or amendment to the 1970 Plan to date. The Comprehensive Plan Update provides additional and sometimes more specific guidance relative to the 1970 Plan but is still very general due to the large geographic area and broad subject matter covered by the plan. Major topics discussed in the 1999 Update include transportation[1], the local economy, housing, public facilities and capital infrastructure, and natural, historic and cultural resources. According to the 1999 Update, a major hamlet center similar to but smaller than the village/town centers, with shopping centers and retail corridors should be created in Riverside using PDD zoning.

Generally, the Update indicates that hamlet centers should:

- Combine convenience, destination, and specialty shopping, and therefore serve larger portions of the town;
- Promote streetscape improvements unique to each hamlet/village center's themes and assets, through zoning guidelines, Planned Development District (PDD) guidelines, design guidelines, Capital Improvement Projects (CIP), etc.;

[1] In 2004, the Town amended the comprehensive plan by adopting a transportation element.

- Focus landscape and other improvements on critical vistas which shape the image of hamlet/village centers;
- Retain or promote train stations, bus and jitney stops, beach shuttles, and other public transportation elements in the hamlet/village centers;
- Carefully consider how arterial access to hamlet/village centers can be improved without compromising on-street parking, the tranquility of adjoining neighborhoods, and pedestrian ambiance;
- Provide parking waiver fees in order to keep pace with inflation;
- Pursue on-street parking, sidewalk extensions, pedestrian-oriented lighting, street trees, traffic lights, and consistent building setbacks so as to create a pedestrian ambiance in hamlet/village centers;
- Target hamlet/village centers for TDR, PDD, MX zoning, and infill zoning (zero-lot line and 100 percent coverage) so as to promote concentration of uses in these centers;
- Target hamlet/village centers for civic and Town facilities and amenities, including "greens" and pocket parks;
- Establish a Town Business Development Center to serve as a resource and clearing house for technical assistance and small business development services; and
- Explore the options of establishing Business Improvement Districts in one or several of the hamlet/village centers.

The 1999 Update also recommends the following land use action items be applied to the center of the Study Area at the Southampton Enterprise Zone property:

> Promote commercial/industrial development at the former drive-in site, ideally incorporating adjoining vacant and underutilized property. Consider a supermarket (but not a conventional shopping center) as one of the uses. The development should place priority on landscaping and buffers, especially proximate to an adjoining school, which might benefit from expansion in this direction.

The Comprehensive Plan Update also states that low density residential development should be established within the Aquifer Protection Overlay District; however, it should also be noted that 47.5 acres of land within the Study Area are designated Central Pine Barrens transfer of development rights (TDR) receiving areas indicating that additional development density can and should be provide in the area.

Many of the transportation-related Hamlet Center strategies for all of the Town's hamlets identified in the 1999 Comprehensive Plan were also largely related to land use. A summary of applicable recommendations are provided below:

- The primary land use strategy to reduce automobile trips is to reinforce increased density and a mix of uses in the town's hamlet and village centers.
- Higher densities are needed in order to generate more support for rail and bus service, both of which are to be focused in hamlet and village centers. Simply put, the more people there are that can walk to a transit facility, the better the ridership possibilities become, without added strain on the streets that also may access that transit facility."

- A mix of uses is significant in order to reduce automobile trips between uses e.g., not just one-stop-shop for stores (as also met in shopping centers and malls), but also one-stop for the library, post office, a visit to a friend, and a meal out.
- The land use techniques to achieve higher density mixed-use districts in hamlet and village centers are addressed in detail elsewhere in the Hamlet Business Strategies Chapter of the comprehensive plan. A number of transportation-related strategies bear repetition, nonetheless. These include: locating mini-intermodal (train/bus/taxi/bicycle) centers in the hamlet and village areas; traffic calming and sidewalks to create walkable hamlet and village areas; consolidated parking and service roads to ease intrahamlet circulation; eased parking regulations, including those with regard to change of use in Village business districts; and beach access linkages to and from hamlet centers. The intent of these recommendations is to make the village and hamlet centers more convenient places for all local residents.

The Flanders/Riverside/Northampton Revitalization Study (Ferrandino & Associates, et al, 2004)

This Study found that the Riverside "area is an extremely complex mix of traffic, land use and zoning" and that it should "serve as a key gateway, welcoming people into the Town of Southampton and the hamlet of Riverside, but that existing uses "are not inviting and do not connote any sense of 'arrival'."

The Revitalization Study addresses a wide variety of issues relating to land development, community growth and revitalization, and resource protection. It also provides some specific guidelines for the future development of the central portion of the Study Area as the Riverside Hamlet Center which eventually led to the development of the 2008 Draft Riverside Hamlet Plan prepared by Hutton Associates (see below). Recommendations of the Flanders/ Riverside/ Northampton Revitalization Study focus on creating a hamlet center that supports local level retail and commercial uses, pedestrian activity, and a second-story residential uses to create a 24-hour presence and vibrant spaces (Ferrandino and Associates, 2004).

Draft Riverside Hamlet Plan: A Vision for the Future (Hutton Associates, 2008)

The draft Riverside Hamlet Center Plan prepared by Hutton Associates (2008) was a follow-up to the Flanders/Riverside/Northampton Revitalization Study. The Hamlet Center Plan recommended the creation of a "Riverside Hamlet Center Mixed-Use Planned Development District" (MUPDD) at the center of the current Study Area on the Southampton Enterprise Zone industrial subdivision property and the 12.5-acre woodlands that is adjacent to and west of the subdivision. The MUPDD was to involve a change of zone on a total of 32 separate but contiguous Suffolk County tax lots totaling 53.3 acres from Highway Business (HB), R-15, and LI-40 to a unified MUPDD. The MUPDD was to consist of three separate blocks or zoning district subsections (Blocks, I, II, and III) and a fourth optional overlay block (Block IIa) which was to be governed by specific land management regulations and design guidelines that were specifically tailored toward each block.

Types of land uses that had been contemplated for the MUPDD included a mix of multi-family residences, commercial retail, personal services, restaurants, offices, community facilities, warehouses, light industry, and open space in the form of plazas and/or small Hamlet greens,

again suggesting the need to establish a more vibrant mixed use hamlet business district that promotes activity. Consideration of safe and convenient public access and circulation were also significant components of the plan, and included the development of new and modified road improvements and other public infrastructure, services and facilities to serve a more dense mixed use community. The Riverside Hamlet Center Plan and associated zoning amendments were never officially adopted by the Town.

Riverside Urban Renewal Plan (Saccardi & Schiff, Inc., 2009)

The study area for this plan involved approximately 93 acres extending from the rear lot lines of parcels fronting on the south side of SR 24 to the intersection of Riverleigh Avenue and Old Quogue Road and included properties fronting on the east side of Old Quogue Road to Brown Street and Ludlam Avenue Park, as well as properties fronting on the west side of Riverleigh Avenue from the traffic circle south to the church and MacLeod Mobile Home Park. The purpose and objectives of this plan were to provide a strategy for:

- reinforcing a sense of community and neighborhood identity;
- eliminating blight conditions defined in the 2006 Blight Study;
- rehabilitating certain residential properties;
- redeveloping vacant, deteriorating or deteriorated buildings, incompatible land uses or underutilized properties with residential, community and commercial uses consistent with the area's desired neighborhood character;
- providing local commercial uses to meet resident's needs;
- expanding the property tax base and provide additional employment opportunities;
- developing land uses within the project area that can complement and benefit from the proposed Riverside Hamlet Center, which is adjacent to the project area;
- improving vehicle and pedestrian circulation and safety within the project area and creating connections to the adjacent proposed Riverside Hamlet Center; and
- facilitating the creation of a Gateway Center that concentrates residential and nonresidential development and brings a focal point to the project area.

General recommendations of the plan include but are not limited to:

- acquiring and assembling blighted properties for redevelopment;
- rezoning certain parcels from VB or HB to R-15 or R-40 zones, MTL zone to the MUPDD and OD;
- securing funding and providing certain capital improvements including extensions and realignments of streets, new sidewalks, curbing, gutters, crosswalks, outdoor lighting, and other streetscape features in selected locations in the project area. This included construction of a road from Old Quogue Road into the Hamlet Center and realigning Old Quogue Road and Riverleigh Avenue and incorporating the southern end of the Old Quogue Road right-of-way into Ludlam Avenue Park; and
- establishing site-specific design and performance standards for the two large commercial uses in the area – the former auto dealer site, and the existing motel and diner site.

2015 Framework for the Future - Suffolk County Master Plan (2015)

Suffolk County produced the Framework for the Future – Suffolk County Comprehensive Master Plan 2035 in order to define long-term planning goals intended to guide activities related to growth in Suffolk County. These goals are to provide the foundation for sustainable growth and resiliency of Suffolk County, and to encourage economic development that will help to retain and attract businesses and create jobs for Suffolk County residents.

The following Priority Actions and Recommendations of the Master Plan, while not specific to the Riverside community, are consistent with the goals and objectives of the proposed redevelopment. The priority actions of the Master Plan reflect the six Livability Principles adopted at the federal level by U.S. Department of Housing and Urban Development, U.S. Environmental Protection Agency, and U.S. Department of Transportation:

1. Build a 21st Century Transit Network to Provide More Transportation Choices to Improve Mobility, Access, and Safety
2. Provide Equitable, Affordable, Fair Housing
3. Enhance Economic Competitiveness and Capacity to Build an Innovation Economy
4. Support Vibrant Communities
5. Streamline Government, Coordinate Policies, and Leverage Investment
6. Protect the Environment and Enhance Our Human Capital

7.2 Potential Impacts

7.2.1 Land Use

Proposed Action

The Proposed Action involves the adoption of amendments to the Town Zoning Map and Town Zoning Code that will create the Riverside Overlay District (ROD)[2] and implement the standards and policies necessary to fulfill the vision of the RRAP, the Comprehensive Plan Update and various Riverside studies and public outreach. Property owners will have the option to develop within the allowances of existing zoning or choose to develop under the parameters of the applicable Overlay Zone. As the underlying zoning will remain in place, the proposed zoning will not render any pre-existing uses nonconforming. As described in **Section 2.4**, seven Overlay Zones have been conceptualized so as to provide for a coordinated mix of commercial, retail, office, restaurant, hospitality, civic, recreational, educational, institutional, assisted living, and multi-family and two-family residential land uses centered around the traffic circle. The purposes of the proposed ROD zones are summarized below. **Figure 7-5** shows the geographic locations, pattern, and scale of these proposed overlay zones.

RO-1: The RO-1 Zone ("Riverside Hamlet Center") is located around the traffic circle and is closest to Downtown Riverhead and the Riverhead Train Station ("Riverhead Station"). This zone would allow the tallest buildings and greatest development density and permit the greatest number and most diverse land uses, including residential, retail, hospitality, cultural and entertainment, as well as promoting public activities and community interaction.

RO-2: The RO-2 Zone ("Riverside Hamlet Neighborhood") is adjacent to and south of RO-1 and spans from Moriches Riverhead Road (CR 63) to SR 24. This zone, which is within ½-mile of the traffic circle and Downtown Riverhead, would also allow for higher density development and a range of commercial, retail and residential uses to support the RO-1.

RO-3: Adjacent and to the south of the RO-2 is the RO-3 Zone ("Riverside Special District") which also abuts the Riverwoods/MacLeod community and includes the Southampton Enterprise Subdivision. The RO-3 Zone is between ½ and ¾ of a mile from the traffic circle and Downtown Riverhead. This area would promote a variety of housing options and serve as an employment center but would promote lower intensity uses when compared to the RO-1 and RO-2 Zones.

RO-4: The RO-4 Zone ("Gateway District") is located at the east end of the ROD along both sides of SR 24 and along the south side of Nugent Drive at the west end of the ROD. The RO-4 provides a transition for motorists passing through the area along major routes and provides the eastern and western gateways to the Riverside community. This zone allows for a wider range of land uses than the underlying zone but at lower densities than other proposed zones.

[2] Note: The ROD and Study Area have the same boundaries and contain the same area.

RO-5: The RO-5 Zone ("Suburban District") includes three areas along the perimeter of the ROD where there are existing single-family residential neighborhoods. These areas include the existing Woodhull Avenue subdivision located along the western boundary of the ROD; the Riverwoods/MacLeod community located along part of the southern perimeter of the ROD; and the Ludlam Avenue residential neighborhood located along the eastern perimeter and part of the southern perimeter of the ROD. This district is designed to maintain the suburban character of existing residential neighborhoods, while allowing higher densities than the underlying zoning currently permits.

RO-6: The RO-6 Zone ("Riverside Waterfront District") includes those properties located along the Peconic River that are not within the RO-1 or RO-7 zones. The purpose of the RO-6 is to accentuate Riverside's character while allowing a greater mix of uses and waterfront related businesses than the underlying zones permit.

RO-7: Also referred to as the RPL Zone, the last proposed zone is the RO-7 Zone ("Recreation and Parklands"). This district includes five relatively large land areas that have been either preserved as open space or are used as parkland. These properties could not be developed under the proposed zoning strategy, however, their integration within the overlay is important for passive and active recreation and overall quality of life and marketability of new development.

In addition, the proposed form-based design standards and descriptive development controls within each Zone described in detail in **Section 7.2.2** will promote orderly development in accordance to the land uses, design issues, amenities and infrastructure, and character that have been sought by the community for many years and is supportive of long held goals for the area as indicated by the various planning studies for the area including the Comprehensive Plan Update.

Portions of Riverside are currently blighted, contain vacant buildings or structures that are in disrepair, as well as a number of sites and land uses that have or still do pose environmental concerns. Early on in the planning process for the Proposed Action it was determined that there is a need to create incentives to achieve the level of interest necessary to redevelop and revitalize the area and promote sustainable smart growth envisioned by past planning studies and public outreach. The proposed ROD will permit a wide variety of uses and opportunities that will help to achieve greater development yields through density bonuses that allow taller buildings and promote the assembly of land into larger more dense development sites. Where lots are assembled into large development sites, additional height is permitted in all but the RO-7 Zone which are identified as preserved or publicly owned lands.

A key change that will occur under the proposed action is the allowance of a broader mix of uses within a single zone rather than having 13 separate zoning districts predicated on strict segregation of land uses that conventional "Euclidian" zoning typically provides. The introduction of more diverse uses will provide the means to bring more activity and vibrancy into the ROD and allow the community to have greater self-sustainability by increasing the customer base for hamlet merchants, providing a larger employee pool for these businesses, creating more employment opportunities for residents where few jobs exist, and developing more favorable conditions that will be more conducive to future success and vitality. This mixing of uses and resulting increased activity will benefit both existing and future uses and will promote more

options for economic growth and investment in the area. **Table 7-4** lists the uses that would be permitted in the six Overlay Zones that can be developed (excluding the RO-7 RPL Zone). Note that existing single-family residences will continue to be allowed in accordance with underlying residential zoning.

Table 7-4
PROPOSED SCHEDULE OF USES FOR RIVERSIDE OVERLAY DISTRICT
BY OVERLAY ZONE

Use	RO-1	RO-2	RO-3	RO-4	RO-5	RO-6
Mixed-Use						
Mixed-Use Building	P	P	P	P	X	P
Live-Work Building	P	P	P	X	X	X
Retail						
Retail	P	P	P	X	X	SE
Restaurant	P	P	P	X	X	SE
Office						
Office	P	P	P	P	X	X
Medical Office	P	P	P	P	X	X
Professional Service	P	P	P	P	X	X
Business Incubators	P	P	P	X	X	X
Residential[1]						
Home Occupation/Home Professional Office	P	P	P	P	P	P
Two-family Residence	P	P	P	P	P	P
Multiple Dwelling	P	P	P	P	X	P
Multifamily Residence	P	P	P	P	X	X
Cultural						
Theater	P	P	P	X	X	X
Museum	P	P	P	X	X	SE
Hospitality						
Hotel	P	P	P	X	X	P
Bed and Breakfast	P	P	P	P	P	P
Residential Care Facility	P	P	P	P	X	P
Recreation/Education						
Recreational Business	P	P	P	P	X	P
Educational Use	P	P	P	P	P	P
Religious/Civic						
Houses of Worship	P	P	P	P	X	P
Library	P	P	P	P	X	X
Special Waterfront						
Marina	P	X	X	X	X	P
Light Industry						
Artisan Production Facilities	P	P	P	P	X	P
Research & Development Facility	P	P	P	P	X	X
Data Information Center	P	P	P	P	X	X
Document/Misc. Storage	P	P	P	P	X	X
Renewable Energy Facilities	P	P	P	P	X	P

Use	RO-1	RO-2	RO-3	RO-4	RO-5	RO-6
Agricultural Use	P	P	P	P	P	P
Animal Husbandry	X	X	P	P	X	P
Parking Facilities						
Parking Structure	P	P	P	P	X	P
Parking Lot	P	P	P	P	X	P
Adult Entertainment[2]						
Adult Entertainment Use	X	X	X	X	X	X
Utilities						
Utilities	P	P	P	P	P	P

Notes: P = Permitted; SE = Allowed by Special Exception for waterfront related or enhancing use; X = Prohibited
1=Residential use and private dwelling units are prohibited within the Private Frontage area on the first floor of Store frontages
2=As defined in §330-162.17 of the Town of Southampton Zoning Ordinance

Development under the proposed zoning and development scenario would also be more compact. Greater density and the availability of bus, cab, and train transportation in the area, enhanced street connectivity, construction of sidewalks and other pedestrian amenities, and the creation of public spaces, will offer an environment that has more eyes on the street and provides residents with conditions that are more conducive to a community for living, working, shopping, and relaxing in an environment that promotes walking, biking and use of multiple modes of transportation. Future residential and office uses will provide a consumer base that enables new businesses such as restaurants to capture local spending, not to mention opportunities for capturing dollars from the considerable volume of pass-by traffic that traverses the area, especially in the summer. Since many of the housing units will be marketed as workforce housing, there will be an increase in units to serve local emergency service providers, school teachers, and other members of the community who are essential to its long-term functionality. As the character of the downtown improves and becomes more vibrant, it is expected that additional redevelopment opportunities will be catalyzed, thus encouraging additional mixed-use development.

The proposed zoning amendments are largely "form-based" in nature which is intended to provide more consistent and compatible developments with enhanced streetscapes through the use of uniform street and building standards that are based on frontage type, site layout, building form, and integrated function, rather than simply the use proposed. This approach will establish consistent, inviting and pedestrian friendly Hamlet character in the area and create a new image and sense of place and community pride in the area. For example, the RO Zones require that any building opting into the RO-1, RO-2 or RO-3 Zones build a minimum two-story building, thus promoting greater density and more mixed use buildings. Additional height may be achieved if a parcel has adequate lot area and street frontage which may be achieved through the assemblage of small lots.

The proposed Overlay Zones also require that storefronts be created at key street front locations, as defined by the Regulating Plan, thereby promoting street level interest and activity, social interaction, and enhancing the overall function and appearance of highly visible land uses that face and address major streets. Consequently, standards for achieving the visual intent of

storefronts are an important design feature and component of the code and foster the creation of a more traditional mixed use community center.
Important use and design parameters that are included in proposed code amendments include:

- Promoting an appropriate mix of land uses for a healthy hamlet center;
- Enhancing streetscapes and sidewalks to promote business activity, walking, biking, and other alternative modes of transportation, and social interaction;
- Identifying a suitable hierarchal street classifications to promote quality access, connectivity, circulation, order, function, and public safety;
- Encouraging consolidation and assembly of parcels for planned block and sub-block developments to eliminate substandard sized lots and promote the use of density bonuses;
- Encouraging and requiring parking opportunities while recognizing the importance of shared parking to provide the most efficient use of land;
- Providing for civic space and green space as part of redevelopment to promote outdoor activity and enjoyment, public health, and public gatherings; and
- Definition of architectural character in terms of terminating vistas, significant corners, storefronts, and more detailed design enhancements.

The combination of the above land development techniques with the mixed of land uses recommended and highly coordinated development, will help to mitigate potential impacts associated with the redevelopment of the Hamlet. However, the use of the Overlay Zones as a basis for future development will be voluntary and will be determined by market conditions and landowner preferences. The impact of the anticipated change in land use character is expected to be primarily beneficial based on the design/use parameters inherent in the code provisions and the crafting of the zoning amendments to achieve long-established community goals.

Development Scenario

As described in **Section 2.5**, a theoretical build-out analysis based on the proposed zoning was performed as part of the preparation of the RRAP. This analysis provided the basis for assessing and quantifying a likely level of development in the ROD. The analysis estimated the anticipated square footage of retail, office, residential, hospitality, adult day care, and cultural space that might reasonably be built based on allowable height and parking requirements under a Theoretical Development Scenario. **Table 7-5** summarizes the level of new development that could be expected under the Theoretical Development Scenario if the proposed zoning amendments are adopted.

Table 7-5
THEORETICAL DEVELOPMENT SCENARIO
RIVERSIDE OVERLAY ZONES
(Zones RO-1 through RO-6)

Land Use	Additional Square Feet, Rooms, and Dwelling Units
Retail	133,517 Square Feet
Office	62,000 Square Feet
Hotel	97 Hotel Rooms
Residential Units	2,267 Dwelling Units
Adult Care/Nursing Home	63,910 Square Feet
Artisan Lofts/Production	30,900 Square Feet
Cultural	11,032 Square Feet
Parking Garage	550 Spaces
Surface Parking Lots	1,602 spaces
On-Street Parking Spaces	1,107 spaces
Indoor Ice Skating/Hockey Rink	100,000 SF, plus parking

In regard to the residential dwelling units included in **Table 7-5**, excluding adult care/nursing home (assisted living) units, the Zoning Amendments require that 50 percent of the residential units be reserved as Community Benefit Units in perpetuity and administered pursuant to Chapter 216 of the Town Code. For analysis purposes, the Theoretical Development Scenario evaluates ten percent of the residential units (226 units) as studio apartments, 50 percent of the residential units (1,134) as one bedroom units, and 40 percent of the units (907) as two bedroom units, including 157 two bedroom townhomes. Ten percent of the units are evaluated as age restricted, 70 percent of the units are evaluated as renter-occupied, and 30 percent are evaluated as owner-occupied units. See **Appendix L**.

This mix of land uses includes uses that are necessary to achieve Town goals and that are compatible, easily integrated and supportive enough to promote economic development and create a more sustainable community that provides goods and services, temporary construction jobs, full and part-time employment, and tax revenues to local taxing jurisdictions. It should also be noted that there would be nearly 58 acres of open space, not counting courtyards, plazas, pedestrian ways, etc. that would be constructed as part of future development projects.

The Theoretical Development Scenario outlined above is just that, theoretical, but provides a basis for a generic analysis of the potential impacts that may be expected from a likely development scenario within the Study Area. The impacts of development will occur intermittently and at different locations throughout the ROD over the course of many years. The Master Developer would begin work as soon as possible with the first step being the identification of a suitable existing STP that has the capacity to accommodate flow or the expansion or new construction of a facility to serve future development. While there are currently no specific development proposals, this Generic DEIS considers the potential for

redevelopment and the potential impacts from adopting amendments to the Town Zoning Map and Town Code, in order to address potential adverse environmental impacts at the earliest planning stages of a project. The assumed uses and yields are necessary to establish the potential impacts of the Proposed Action as required by SEQRA and are expected to be generally beneficial and appropriate for promoting the land uses identified as most desirable by past planning initiatives.

Sites of Environmental Concern

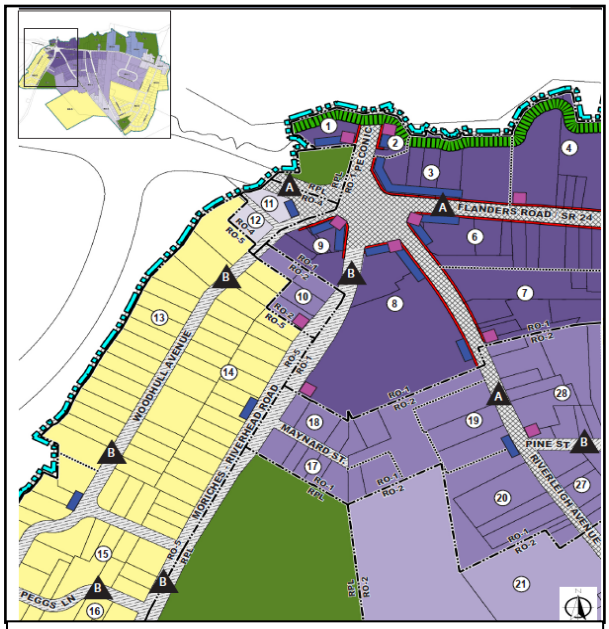
Any redevelopment or property transfer will include the necessary regulatory steps and agency oversight to properly investigate and remediate, if necessary, any environmental conditions warranting such action. This would occur based on Phase I ESAs and follow-up investigations (Phase II ESAs) as warranted as well as the abandonment and/or removal of septic systems, cesspools, underground storage tanks and other similar infrastructure and the cleanup of soil or other hazardous conditions in accordance with standard regulatory policies and practices of the profession. **Section 3.2.2** outlines the types of conditions to be addressed and actions to be undertaken prior to future demolition and site disturbance.

7.2.2 Zoning

The following describes the specific dimensional and design standards proposed for the Overlay Zones that are necessary to achieve the goals of the RRAP and previous Town land use studies and the overall vision for the Riverside community. Potential impacts associated with the land use component of the proposed zoning amendments were discussed previously under **Section 7.2.1**.

Riverside Overlay District Map and Zoning Standards Map

Figure 7-5 presents the Riverside Overlay District (ROD) which depicts the boundaries, locations, relative sizes, and spatial distribution of the seven ROD Overlay Zones. The Zoning Standards Map for the ROD graphically depicts the more salient features of the proposed Overlay Zones such as the distribution of and relationship between "Street Types" and building "Frontage Types" that will apply in the revitalization area should a land owner choose to develop pursuant to the proposed standards. The Zoning Standards Map regulates the Street Types and required Frontage Types along existing and proposed streets, as well as the locations of Terminating Vistas and Significant Corners, all of which are described below.



Section of Zoning Standards Map Showing Street Types

Street Types

Three Street Types are proposed including "A", "B" and "C" Streets (C Streets to be designated if necessary for new site plan approval). The A-Streets are "Primary Streets" and represent the corridors intended for the greatest pedestrian and commercial activity. A-Streets are the highest order street in the proposed Riverside street classification system. A-Streets include the traffic circle, Peconic Avenue, Flanders Road (SR 24), Riverleigh Avenue (CR 104), and Old Quogue Road. B-Streets are "Secondary Streets" with less pedestrian activity, that offer opportunities for pedestrian oriented streetscape designs and occasional storefront activity. B-Streets include Woodhull Avenue, Peg's Lane, Moriches-Riverhead Road, Maynard Street, Pine Street, Vail Avenue, Enterprise Zone Drive, Phillips Avenue, Ludlam Avenue, Goodridge Road, Randall Street, Brown Street, and Pebble Way. C- Streets are all other streets in the Study Area. These streets help to increase site connectivity, encourage better vehicular and pedestrian access and circulation, and provide service entrances within existing blocks. C-Streets therefore provide access to parking areas, offer secondary development access, and can be used for emergency access. To address the primary intent of the proposed Riverside street classification system, different development parameters and frontage requirements apply to each of the street types (i.e., requirements for store frontages, frontage occupancy, increased sidewalk widths, standards for pavement widths).

Build-to-Line ("BTL") and Public Frontage

The BTL refers to the line parallel to the street along which a building must be constructed (see graphic below) and is the outer limit of the Build-to-Zone (BTZ). The BTZ as shown in the graphic is that area between the BTL and a line parallel to the BTL located deeper within the lot. The "Private Frontage" extends from the BTL for a depth of BTZ parallel to the BTL toward the interior of the property. The Build-to-Zone (BTZ) represents the Private Frontage within which the building's Street Wall (front façade) is located at the required length and height.

The Private Frontage is a privately owned, visible element of the streetscape, defined by the architectural treatment and use of the ground floor, the depth of the visible yard, and the combination of Frontage Edging Elements.[3] The BTZ allows for façade articulation and inclusion of recessed and/or pronounced recessed building elements, entrance alcoves and expanded sidewalk areas for outdoor dining, and alignment with existing neighboring buildings. The area between the BTL (or Private Frontage) and the curb is the "Public Frontage," which is public property, consisting of three zones:

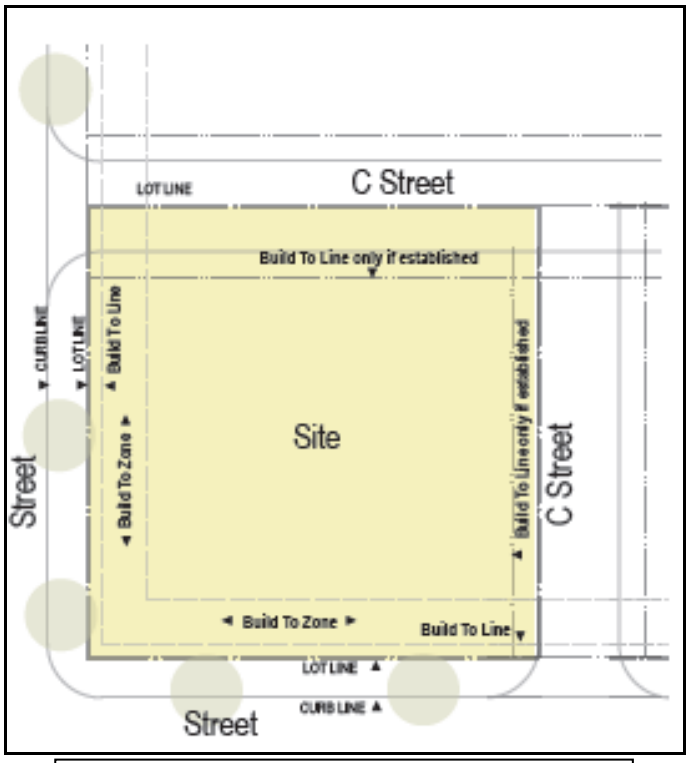
1) Transition Zone, which is located between the Pedestrian Clearway and BTL and allows for the placement of building fixtures (signage and signage boards, lighting, projecting architectural features, and permanent and removable planters);

[3] Edging elements are structures, walls, or landscaping along the edges of public spaces and the public realm that define and enclose the public realm. See Section 330-410 D of the Uses and Development Standards provided in the RRAP in **Appendix A-1**.

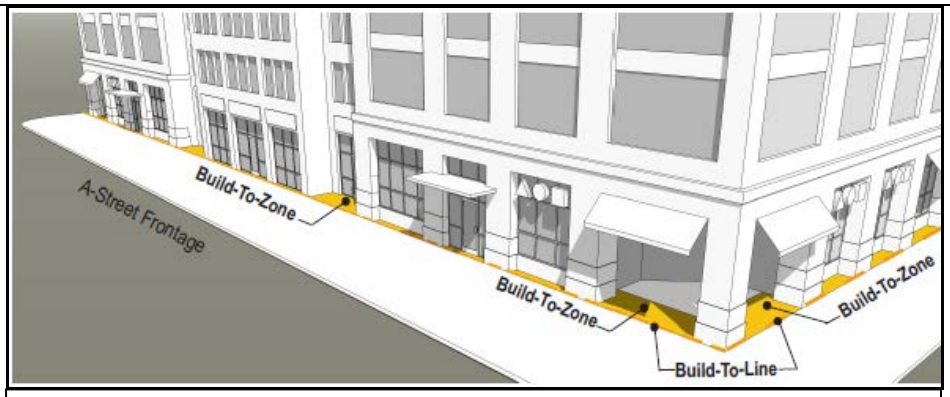
2) Pedestrian Clearway Zone, which is the area of the sidewalk which must remain clear of obstruction to allow pedestrian passage in the public right-of-way (ROW); and
3) Landscape and Furnishing Zone, which allows for placement of parking meters, street signage, bike racks, trash receptacles, street furniture, street trees and planters, etc.

Section 330-408 B. of the proposed zoning amendments provide in the RRAP in **Appendix A-1** provides a diagram of these zones.

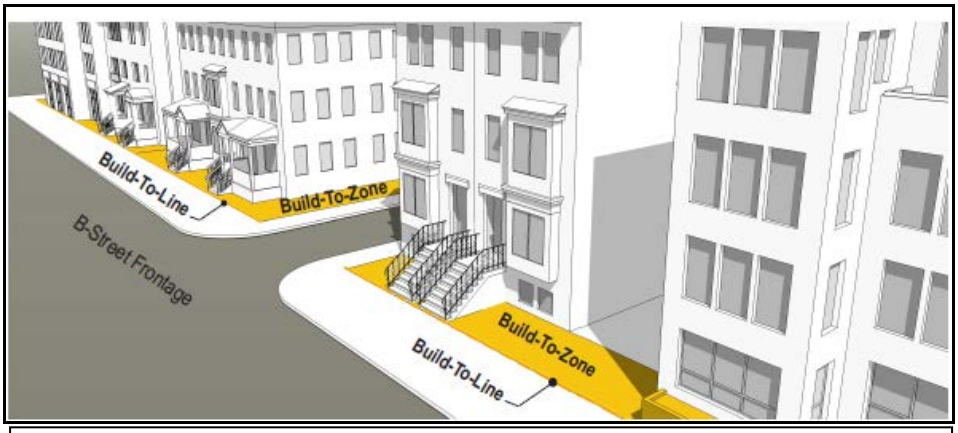
The BTL is referenced from the existing curb as this provides the most consistent reference point and ensures that the public space and publicly visible private space along the frontage coherently shapes the buildings and street to achieve the desired form/design. The BTL is proposed to be 12 feet from the curb for A- Streets, 17.5 feet along B-Streets, and 6 feet along at least one side of a C Street. As a result, the Build-to-Zone, which varies from 10 feet for frontages FR-1, FR-2 and FR-3 and 15 feet for FR-4, FR-5 and FR-6, allows buildings to be constructed to the edge of the defined "public" space and allows for articulation of building faces within the parameters noted (i.e., 10 feet and 15 feet) based on the applicable RO Zone.



Plan Demonstrating BTL and BTZ



Profile Demonstrating BTL and BTZ



Profile Demonstrating BTL and BTZ

Lot Area, Width, and Minimum Building Height

There is a minimum lot area and street frontage of 7,500 SF and 75 feet, respectively, for parcels to be developed or redeveloped under the proposed ROD Zones.[4] These parameters help to ensure that parcels have sufficient area to be used in a manner consistent with the form/design intent of the proposed ROD Zones. The height of buildings in the RO-1, RO-2 and RO-3 must be a minimum of two stories or a maximum of three stories except where the density incentives in **Table 7-6** apply. In the RO-4, RO-5 and RO-6 Zones, the minimum is one-story or a maximum of two stories is required, except where the density incentives set forth in **Table 7-6** apply.

Density Incentive Bonuses

Two types of density Incentive Bonuses are proposed for Riverside, designated Riverside Incentive Bonus 1 ("RIB1") and Riverside Incentive Bonus 2 ("RIB2"). The RIB2 bonus would provide a higher level of yield than the RIB1 bonus but requires a larger minimum lot area. In

[4] With the exception of parcels in RO-7, Parkland and Recreation District, as future private development is not permitted in this zone.

order to achieve a RIB, a landowner must control a larger minimum lot size (15,000 square feet ["SF"] for RIB1 and 60,000 SF for RIB2) as well as minimum street frontage (150 linear feet ["LF"] for RIB1 and 300 LF for RIB2). An increase in land size and frontage for RIB1 allows for available building height to 3.5 stories (RIB1) in the RO-1, RO-2 and RO-3 zones, and 2.5 stories or 35 feet maximum in the RO-4, RO-5, and RO-6 zones. In the RIB2 scenario, building height would increase to 4.5 stories in the RO-1 zone, 4 stories in the RO-2 and RO-3 zones, 3.5 stories in the RO-4 and RO-6 zones with no bonus in the RO-5 zone. Additionally, there will be sustainable "green" development requirements that a developer must meet to qualify for the RIBs. The height and other incentives were created to provide a mechanism for owners of small or substandard-sized lots that would otherwise be unable to meet the necessary development thresholds of the proposed zoning, to join forces and participate in property owner alliances that encourage land assembly that provides the land area to ensure suitable development conditions, form and proportion. Other incentives include:

- Expanding the range of uses allowed;
- Reducing parking requirements;
- Allowing payments in lieu of required on-site parking spaces;
- Providing shared parking opportunities;
- Allowing payments in lieu of parks and open space requirements;
- Providing for shared parks and open space opportunities; and
- Providing an expedited review and approval process.

Frontage Type and Significant Corners

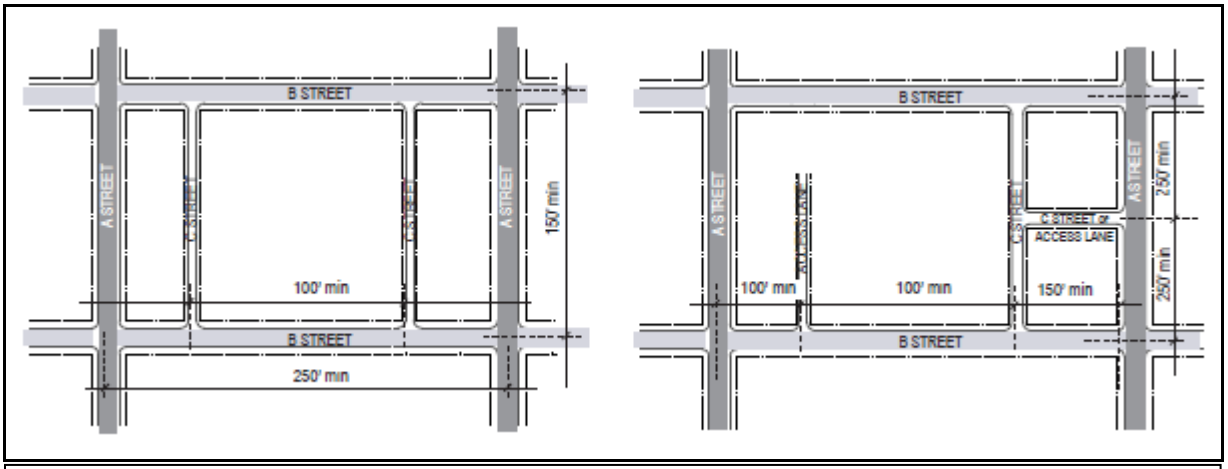
The Zoning Standards Map establishes options for Frontage Types (i.e., storefront, hamlet, porch, arcade, stoop, and forecourt) which specify frontage occupancy and required elements within the public and private frontages (i.e., glazing requirements, entrance requirements, distance between doors, placement of signage and lighting, etc.). One of the key Frontage Types is a storefront that is primarily for retail use, requires substantial glazing, and allows for entrance alcoves, expanded sidewalk areas for outdoor dining, façade articulation, inclusion of recessed building elements, and alignment with existing neighboring buildings. Storefronts are an important place-making feature; they create an appealing visual appearance, are inviting and activate the street. Consequently, the Code amendments provide a variety of storefront options to appropriately define the public frontage. Additionally, there are certain "Edging Elements" that are permitted in each of the Frontage Types. Examples of Edging Elements include low wall, raised edges, stairs/steps/stoops, ornamental fences, privacy fences, planters, and landscaped edges.

Rendering of a Significant Corner

The corners of intersections involve public gathering areas and opportunities for interesting views of defining architecture that stimulates public interest. The Code amendment seeks to identify "Significant Corners" defined as "corner locations, typically at intersections, with distinctive architectural elements or civic space framed by buildings of high architectural quality," and which may function as "terminating vistas," in order to encourage design that promotes appropriate architectural features in these areas. Significant Corners are located primarily in the area surrounding the traffic circle with additional Significant Corners located at the intersections of other A and/or B streets throughout the Study Area. In these areas, Significant Corners can exceed the maximum height limits to promote the construction of significant architectural features that will enrich community character.

Block Frontage and New Streets

The purpose of this provision is to reduce the length of uninterrupted block frontages and provide a lighted and connected network of walkways through large blocks and to improve connectivity linking each site to its surrounding block and neighborhood. As envisioned, the Code would seek to provide for a new Mid-Block Pedestrian Way or Civic Space where blocks facing A Streets or B Streets are 500 feet or longer. Sites with more than 200 feet of street frontage may be required to provide mid-block pedestrian ways and/or civic spaces at least 16 feet in width to connect the front of the site to existing or planned pedestrian ways at the rear of the site. The minimum separation distance between street intersections for new streets are 250 feet for A Streets, 150 feet for B streets, and 100 feet for C Streets. Greater connectivity is also another feature of the proposal which helps to enhance access, walkability and bikability, and mitigate traffic issues.



Block Subdivision and New Street Placements

Table 7-6
SUMMARY OF PROPOSED ZONING STANDARDS
Riverside Overlay District Zones

Minimum Site and Building Requirements				
ROD Zone	***Zoning Standard***	***Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1 (RIB1)***	***Riverside Overlay Development Incentive Bonus 2 (RIB2)***
RO-1	Minimum Frontage	75 feet	150 feet	300 feet
	Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
	Stories	Minimum 2, Maximum 3	Maximum 3.5	Maximum 4.5
	Height	Minimum 30 foot Street Wall	---	---
RO-2	Minimum Frontage	75 feet	150 feet	300 feet
	Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
	Stories	Minimum 2, Maximum 3	Maximum 3.5	Maximum 4
	Height	---	---	---
RO-3	Minimum Frontage	75 feet	150 feet	300 feet
	Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
	Stories	Minimum 2, Maximum 3	Maximum 3.5	Maximum 4
	Height	---	---	---
RO-4	Minimum Frontage	75 feet	150 feet	300 feet
	Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
	Stories	Minimum 1, Maximum 2	Maximum 2.5 OR maximum 35 feet	Maximum 3.5
	Height	---	Maximum 2.5 stories OR Maximum 35 feet	---
RO-5	Minimum Frontage	75 feet	150 feet	No Bonus Available
	Minimum Site Area	7,500 SF	15,000 feet	No Bonus Available
	Stories	Minimum 1, Maximum 2	Maximum 2.5 OR Maximum 35 feet	No Bonus Available

Minimum Site and Building Requirements				
ROD Zone	***Zoning Standard***	***Overlay Baseline Requirements***	***Riverside Overlay Development Incentive Bonus 1 (RIB1)***	***Riverside Overlay Development Incentive Bonus 2 (RIB2)***
	Height	---	Maximum 2.5 stories OR Maximum 35 feet	No Bonus Available
RO-6	Minimum Frontage	75 feet	150 feet	300 feet
	Minimum Site Area	7,500 SF	15,000 SF	60,000 SF
	Stories	Minimum 1, Maximum 2	Maximum 2.5 OR Maximum 35 feet	Maximum 3.5
	Height	---	Maximum 2.5 stories OR Maximum 35 feet	---
RO-7	No Development	No Development	No Bonus Available	No Bonus Available

Other Provisions

Terminating Vistas involve an important concept of providing appropriate architecture in areas where a street terminates in the middle of a block. Within the Study Area, a number of terminating vistas are located in the area surrounding the traffic circle and at various "T" intersections along other A Streets and B streets throughout the area. The Code amendments seek to provide architectural guidance and design criteria for these locations (located on the Zoning Standards Map) to provide for attractive views along these terminating streets.

Visual Depiction of Terminating Vista

As described above, there are a number of locations identified as "Significant Corners" in the Study Area. Significant Corners are corner locations, typically at intersections having a distinctive architectural element or a civic space framed by buildings of high architectural quality. These locations may also function as Terminating Vistas and help to enrich community character and enhance an area's identity and sense of place. Under the proposed Code amendments, construction at Significant Corners would be permitted to exceed the maximum height standard to allow for significant architectural features in locations so designated by the Zoning Map as per proposed Section 330-407.

The ROD Code amendments incorporate a number of other provisions to promote appropriate form-based design including street frontage design, stoops, yards and porches and related design criteria. These are illustrated and describe in the draft Zoning Amendment in order to encourage the form-based development that was envisioned by past planning and public visioning efforts.

Where Code amendments should not be too prescriptive, a design guidelines manual will provide further guidance to landowners, developers and applicable Town Boards that will review projects in order to expand the options but encourage the look and feel intended to be achieved in creating a downtown environment.

Civic Space Requirements and Pedestrian Access

The proposed ROD includes provisions for Public Civic Space and Private Open Space. Specifically, the proposed Civic and Private Open Space Standards regulate the size of the spaces, identifies the permitted Frontage Types and Edging Elements to be used, and allows for a variety of spaces types including plazas, courtyards, corner plazas, piazzas, greens, squares, pedestrian ways and walkways, front courts, roof gardens, and pocket parks. Under the Proposed Action, Public Civic Spaces and Private Open Spaces would be required as a percentage of lot size, with a minimum of 10 percent required for Civic Spaces and a minimum of 5 percent for Private Open Spaces. The provision of Streetscape Enhancement Areas (constructed to provide high quality paving materials, street furnishings, pedestrian-oriented lighting, and landscaping requirements) and Public Sidewalks along new streets would also count towards the required percentage of the Civic Space requirements.

Payments in-lieu of dedicating such space based on site and floor area of the proposed development would also be permitted. Properties that are larger than 15,000 SF would be required to provide Civic Space on-site; however, properties smaller than 15,000 SF would be permitted to provide the space on other sites, if it is within 1,000 feet of the development site. Civic space would be designed during site plan review at which time the appropriate civic space option would be determined to ensure improved aesthetics and the maximization of function within the public realm.

Parking

The Proposed Action encourages the establishment of shared parking between proximate uses as a way to reduce the number of parking lots and parking spaces constructed (see Section 330-410 I. 3 and 4). In addition, the Proposed Action seeks to move parking areas to locations where it would be more aesthetically appropriate, such as locating shared surface parking behind buildings. "Liner" buildings would screen parked cars but allow for parking to be situated in convenient proximity to new uses. In addition, the parking setback requirements for A- and B-Streets would locate surface lots (even those exposed to public view) outside of the Build-To-Zone, which would improve visual qualities from streets and sidewalks and allow for street-side landscaping thus enhancing the overall appearance of development and the streetscape. The exact location of parking will be determined by the Town Planning Board and/or applicable parking agency during site plan review. C-Streets do not have a minimum setback unless it is declared a frontage.

The number of parking spaces required of an applicant seeking site plan approval is as follows:

(a) Residential: one parking space per unit

(b) Commercial: 2.5 parking spaces per 1,000 square feet of gross floor area (GFA)
(c) Retail: three parking spaces per 1,000 square feet of GFA

The number of parking spaces may be reduced or increased under either the Riverside Incentive Bonus RIB1 or RIB2 classifications if the applicant can demonstrate through a Parking Management Plan (PMP) that a sufficient level of parking to serve the development is provided. The reduction or increase must be warranted based on the projected operational characteristics of the use and its need for parking, a study of parking demand for similar uses in similar locations, and/or shared-use parking.

Where parking will be provided off-site, the Applicant will be required to pay a fee-in-lieu of spaces to the applicable Parking Agency/Fund according to a fee schedule established by the Town Board.

Sustainable Development Standards

Development under the Proposed Action must also comply with minimum sustainable development standards depending on whether the proposed developer chooses the Baseline, Incentive Bonus 1 or Incentive Bonus 2 development option. **Table 7-7** outlines the minimum standards listed in Section 330-410 J. of the draft Code which is provided in its entirety in the RRAP in **Appendix A-1** of this document.

Table 7-7
SUSTAINABLE DEVELOPMENT STANDARDS

	ROD Requirement	**Riverside Incentive Bonuses (RIBs)**	
	Baseline	***Bonus 1 (RIB1)***	***Bonus 2 (RIB2)***
Minimum Requirement	Attain equivalent of points [TBD] for Riverside sustainability strategies		In addition to ROD min, min requirement to attain equivalent of points [TBD] for Riverside sustainability strategies
Indoor Water Use	20% below baseline		
Water Efficient Landscaping	Reduce potable water consumption for outdoor landscape irrigation by 50% from a calculated midsummer baseline case		
Heat Island Reduction*	50% of the non-roof site hardscape		
	"Green" roof for at least 50% of roof area or 75% of roof with low SRI		
Parking	ROD minimum requirements		Provide shared access, new streets and Parking Management Plan
Bicycle Parking	ROD minimum requirements		RIB1 & RIB2 minimum requirements (410. K.)

*Except for approved Piazza as Public Civic Space

Based on the above table, the Sustainable Development Standards would:

1. Reduce impacts to water resources by creating water efficiency standards for indoor water use in new buildings or significantly renovated buildings. These buildings must use on average 20 percent less water than baseline buildings.
2. Reduce outdoor potable water consumption by creating standards for water efficient landscaping. Reductions may be attributed to any combination of the following items:
    - Use of captured rainwater or recycled water
    - Plant species density and microclimate factor
    - Irrigation efficiency
    - Use of water treated and conveyed specifically for non-potable uses
    - Use of other non-potable water sources such as storm water, air conditioning condensate, and foundation drain water.
3. Reduction of the Heat Island by applying the following strategies for 50 percent of the non-roof site hardscape (including sidewalks, courtyards, parking lots, parking structures, and driveways):
    - Provide shade from open structures such as those supporting solar photovoltaic panels, canopied walkways, and pergolas
    - Have open grid pavement system (at least 50 percent pervious)
    - Provide shade from the tree canopy (within 5 years of landscape installation)
    - Install a vegetated (green) roof or use roofing materials with a suitable Solar Reflectance Index (SRI) in accordance with the specifications outline in the proposed Code
4. Provide bicycle parking and storage facilities according to the standards for residential, retail uses, and non-residential uses other than retail.

Sustainable development is a goal of the RRAP and is just another step toward protecting the environment and providing sustainable smart growth development in Riverside. Locating the densest and most varied uses around the traffic circle would help in creating compact, walkable, transit-oriented redevelopment. The consolidation of development, the redevelopment of existing brownfield sites, the removal of many of the older and less efficient buildings, conformance to new building codes, and promotion of green construction practices within Riverside will assist the Town in achieving promoting energy efficiency and more sustainable redevelopment.

The overall impact of the proposed overlay zoning and future Theoretical Development Scenario from land use and zoning perspectives is potential increases in development density, associated impacts of this increased density (more clearing, impervious ground cover, stormwater generation, wastewater generation, increased use of energy and water, and traffic, and increased demand for services, which are discussed separately) and a greater mix of land uses. The mix of uses and development density proposed is necessary to achieve a number of well-established, greatly supported, long-term planning goals identified by the Town and Riverside community, including making Riverside more economically sustainable, increasing housing choices, increasing job opportunities for residents, reducing unemployment, spurring investment in the area, increasing property values, expanding the tax base, and improving the quality of life for

residents. The overall goal of the overlay zonings and Code amendments, however, is to properly mitigate impacts and achieve the many goals and objectives for the area. Despite some of the potential impacts (e.g., increases in wastewater generation and stormwater generation), connecting to a sewage treatment facility, providing better stormwater management, and improving the road network, especially the traffic circle, future development under the Proposed Action will have an overall positive effect. Moreover, the proposed design guidelines support a "form-based" zoning approach that will help the community to grow in a positive well-planned and executed way that is consistent with past Town planning initiatives and contemporary planning principles and practices.

Maintenance

The proposed zoning amendments would require that Privately-Owned Civic Space be maintained by its owner or a private entity such as a Property Owners Association, Municipal Improvement District or Business Improvement District, while Publicly-Owned Civic Space must be maintained by its public owner or a contracted entity such as a Property Owners Association, Municipal Improvement District or Business Improvement District.

7.2.3 Plans

As previously noted, there have been many studies of the Riverside community which have consistently identified the need to eliminate blight and redevelop and revitalize the area to benefit and support the health, safety, and general welfare of the Hamlet. The proposed Overlay Zones and expected development they would produce will help the Town to effectuate the recommendations identified by several past planning studies, satisfy social, economic, and environmental goals, and effect positive change. These past studies, and the array of recommendations they provide (see **Section 7.1.3**) have been similar in scope and nature, and clearly are the key to resolving ongoing issues in Riverside, if only they would be implemented. In fact, the Proposed Action will specifically assist the Town in finally achieving the following general land development themes identified by the Town, Riverside Community, and professional planners over the past 16 years:

- Assemble land, eliminate blight, and redevelop and revitalize the area;
- Provide or enhance essential capital infrastructure to better serve the area and protect the environment and public health;
- Create a vibrant cohesive hamlet center with mixed uses (including residential, commercial, retail, restaurants, offices, light industry, and others);
- Create a community that is walkable and relies on multiple modes of transportation;
- Establish appropriate design guidelines for development and improve landscaping and streetscapes;
- Enhance access, circulation and traffic safety;
- Capture a larger proportion of the area's commercial market and promote business development and economic growth;
- Produce more jobs;
- Expand the tax base;

- Provide and enhance civic spaces that serve the public; and
- Protect the environment.

The Proposed Action has been designed in concert with the Town and the community to provide the type of redevelopment envisioned by past Town planning initiatives and would revitalize the Study Area and Riverside Community. As a consequence of such consistency, the Proposed Action, with all of the checks and balances, is not expected to result in any adverse impacts relative to land uses or zoning but instead provided a great benefit to the community.

7.3 Mitigation Measures

- Incentive Bonus Verification: Applications opting into the Incentive Bonuses must demonstrate the application meets the requirements for minimum lot area and street frontage, Sustainability Standards.

- Phase I Environmental Site Assessments (and Phase II ESAs if deemed necessary by the findings of the Phase I ESA) shall be conducted to identify any existing recognized environmental conditions (RECs) or potential concerns relating to demolition and site preparation prior to building demolition, site preparation and redevelopment. An ESA will identify the need for further testing to determine if RECs are present and if further testing, site remediation, impact abatement, regulatory oversight or other appropriate action is warranted. Any redevelopment or property transfer will be subject to the required regulatory procedures and applicable agency oversight to properly investigate, and remediate if necessary, RECs warranting such action. Issues that must be considered include the cleanup of any soil contamination that contains elevated concentrations of contaminants in excess of regulatory standards. Of particular concern are potential issues associated with above- and below-ground fuel storage tanks, drywells, stormwater leaching pools, septic systems and cesspools, floor drains, past on-site dumping, hazardous materials releases from materials storage areas, leaking containers, spilled or mishandled materials, intentional discharges of toxic materials or other hazardous materials releases that have resulted in or may have caused adverse health or environmental conditions. If hazardous conditions that exceed required thresholds are identified, a plan to rectify these concerns will be developed and implemented.

8.0 COMMUNITY CHARACTER

8.1 Existing Conditions

8.1.1 Visual Character

Community character refers to the overall setting of a place, its identity and function, its natural environment and history, the scale, density, design and physical form of its man-made features, its social fabric, the types of experiences it offers, and how its many characteristics and conditions affect and interact with the senses and provides us with an overall impression. Community character is largely an abstract concept which makes it nearly impossible to measure quantitatively but can, nevertheless, be defined and assessed qualitatively by considering common perceptions of what is appealing or unappealing based on information collected through direct field observations, analysis of GIS data, examination of past and present aerial and ground level photographs, input from community outreach exercises, and simply comparing conditions to other places we have visited and experienced that tend to be appreciated or disliked. The perception of a community's visual character is also often established based on views observed from locations where the public travels or visits the most – in this instance, the arterial roads that traverse the Riverside hamlet.

While the surrounding area is replete with preserved pine barren forests and open spaces and contains ponds, a lake, rivers and streams, tidal creeks, marshes and a bay, the built environment within Riverside lacks a positive and distinctive community identity and in many instances actually detracts from its character. Unlike other well-established and successful hamlets and villages in the Town, Riverside lacks any recognition as a desirable "place" or destination to live where social and economic activities are woven into the fabric of the community creating a vibrant, walkable, mixed-use, sustainable business and neighborhood climate.

Development in the area currently consists of one- and two-story buildings and structures that are spread out along SR 24 but mostly concentrated around the traffic circle. This development pattern has been largely influenced, for better or worse, by the presence of the traffic circle itself and the five State or County highways that merge at this location. The traffic circle not only serves as a gateway to the Riverside community, but it also serves as a major regional gateway to the Hamptons and the North and South Forks; the nearby downtown Riverhead and Route 58 business districts; and the Peconic River, extensive parklands containing pine barrens and other valued natural resources. Vacant lots in Riverside, in addition to buildings and structures that are vacant, boarded-up, poorly maintained and in disrepair, have degraded the overall appearance and character of the built environment in the Study Area, leading to what has been characterized as blight. A need has existed for some time for a viable well-coordinated plan for redevelopment, economic revitalization and community investment to be implemented to reverse blight conditions. A few of the many examples of residential and commercial blight in Riverside are depicted in the photographs below. See also **Appendix I** which contains numerous photographs of the Study Area.

Visual resources and aesthetic qualities are important to a community and play a significant role in the formation of its character. Visual resources commonly include forests, parks, open spaces, bays, lakes, ponds, rivers, streams, wetlands, unique landforms, agricultural resources, extraordinary vistas, scenic roadways, quality streetscapes, fine landscaping, public art, historic buildings and landmarks, and buildings and structures with unique or exceptional architectural quality. These features are commonly considered positive attributes of a community. They offer positive visual qualities and contribute to a community's identity or "sense of place" which can promote community pride and cohesion, enhance the quality of life for residents, increase or maintain property values, and even stimulate investment, growth and economic activity. Therefore, removing or significantly diminishing, blocking, degrading, or eliminating scenic resources can have an adverse impact on a community, while the removal and redevelopment of blighted properties and replacement of these greyfields, brownfields and eyesores with quality construction, lively streetscapes and landscaping can enhance it. Examples of positive visual attributes in the Hamlet include views of the Peconic River, the landscaped median of the Riverside traffic circle, and a church building as shown in the photographs below.

The Town's 1999 Comprehensive Plan Update contains an inventory and evaluation of visual resources, including a section on aesthetic resources and the identification of scenic roads and

road segments. A review of the Comprehensive Plan's "Scenic Roads" map indicates that the Study Area is not located along any scenic roadways or road segments. In fact, the only natural or man-made feature in the Study Area with any possible scenic significance is the Peconic River and possible views of the Estuary from the river's edge, where accessible.

Views of the river and estuary are currently not readily available to the public from public streets in the Study Area and therefore can only be viewed from limited publicly accessible locations along the river (e.g., McDonald's restaurant parking lot, a kayak launch area behind property along Peconic Avenue) or from the Riverhead municipal parking lot in the Town of Riverhead. Topography in the area is generally flat or gently sloping and due to the low surface elevation and the fact that most of the land along the river is vegetated with trees, scenic views of the river from the hamlet are extremely limited and do not enhance the visual character of the community. The area that could provide the public with the best direct and visual access to the river is land along the river near the traffic circle and the vacant/wooded County- and Town-owned land located north of SR 24 along it. Other properties are not considered to have significant scenic qualities that would warrant additional protections beyond typical zoning, architectural review, and site planning protections.

From the standpoint of the built environment, most of the Study Area consists of small primarily residential neighborhoods consisting of single-family or manufactured homes and a somewhat sprawling, intermittent and ineffective commercial district that extends along SR 24 and those portions of Lake Avenue, Riverleigh Avenue, and Peconic Avenue that are closest to the traffic circle. The physical and architectural appearances of commercial structures in the area are in need of improvement. Based on the appearance of buildings and building and lot vacancies, combined with demographic data indicating a median household income of $36,308, an unemployment rate of 18.39 percent, and poverty that affects nearly one-quarter (24.6%) of Riverside's residents, the existing community character is that of a clearly struggling community (Renaissance Downtowns, 2015).

Photographs depicting the existing visual characteristics of the area are available for review in the photographic portfolio provided in **Appendix I**.

8.1.2 Cultural Resources

Historic Resources

NP&V reviewed the New York State Office of Parks, Recreation and Historic Preservation's (OPRHP) Cultural Resource Information System (CRIS) to determine the presence of any Federal and/or State listed historic landmarks, districts or areas of archaeological sensitivity in or adjacent to boundaries of the Study Area. Based on this review, it was determined that there are no National or State listed historic buildings, structures or historic districts in the Study Area. The closest listed

landmark is Vail-Leavitt Music Hall which is located at 18-24 Peconic Avenue in the Town of Riverhead and the closest historic district is the Riverhead Main Street Historic District in downtown Riverhead; the historic buildings front to Main Street, and the rear facades are directed toward adjoining parking lots, Heidi Behr Way (i.e., the Riverhead municipal parking lot access road), and the Peconic riverfront. A Town of Southampton historic marker is located on Peconic Avenue at the entrance to the Town (see inset photograph).

Town of Southampton Historic Resources Survey

The Town of Southampton completed a Historic Resources Survey in April of 2014 which identified 14 properties in Riverside as potentially historically significant structures; all which are located within the Study Area. At this time, the Town has not designated any of the 14 properties as local landmarks.

Of the 14 surveyed properties, six are located within areas of potential redevelopment envisioned under the Theoretical Development Scenario (see **Figure 8-2**). The majority of the structures identified are in various stages of disrepair. Descriptions of the six properties within the potential redevelopment area evaluated under the Theoretical Development Scenario are described below, as summarized from the Town's Historic Resources Survey:

> **RV-2** is located at 43 Flanders Road (SCTM # 900–139–1–67) is adjacent to EC-6 and east of the traffic circle. The property contains a one and one half story, three-bay frame house with a shed-roofed porch supported by turned posts. The house appears to date to the late 19th Century and appears to be one of the buildings on the 1916 Belcher Hyde map as a building on the N. Downs Estate. Currently the building is abandoned and appears to have been boarded for some time.

Photos of 43 Flanders Road
Source: NP&V Photos (September 30, 2015)

RV-3 is located at 10 Flanders Road (SCTM # 900–118–2–5) and is a two-story gable-roof house with wood shingle siding located on the north side of Flanders Road, adjacent to EC-2, and in the northeast quadrant of the traffic circle. The house was likely constructed in the early 20th Century and appears on the 1916 E. Belcher Hyde map with the name R. Jennings. Alterations made to the house include the replacement of a door, roof cladding, and some windows, as well as the removal of the chimney. This property is included in an area that is envisioned for redevelopment; however, as envisioned, the front portion of the house would be restored (and the rear of the building, which does not have the historic and architectural quality of the main house) would be removed under the Theoretical Development Plan.

Photo of 10 Flanders Road
Source: NP&V Photo (September 30, 2015)

RV-4 is located at 119 Flanders Road (SCTM # 900–139–1–11.2) on the south side of the street. The property is developed with a two-story front-gable house with wood clapboard siding, two-over-two-light windows, brick chimney, and a small rear wing. The house appears on the 1916 map and is expected to have been constructed in the first decade of the 20th Century. The historic integrity of the property has been partially compromised and the front porch appears to have been altered with replacement posts and railings.

Photo of 119 Flanders Road
Source: Google Street Map View (accessed October 5, 2015)

RV-5 is located at 131 Flanders Road (SCTM # 900 – 139 – 1 – 13.2) and is setback from the south side of Flanders Road. The property contains a 1.5 story side-gable home and a central brick chimney. Town information dates the house to 1910, where significant alterations may have occurred. The house appears on the 1916 map and additional alterations appear to have occurred in the late 20th Century, including additions and a porch.

Photo of 131 Flanders Road
Source: Town of Southampton Historic Resources Survey, 2014

RV-7 is located at 320 Riverleigh Avenue (SCTM # 900–139–1-50) and is a two-story gable house with wood shingle cladding and windows expected to have been built in the early 20th Century, however; it is not clear if the home appears on the 1916 E. Belcher Hyde map. It is unknown if the single story addition was original or added later and it is noted that the house may lack individual significance, but could be eligible as part of a grouping.

Photo of 320 Flanders Road
Source: Town of Southampton Historic Resources Survey, 2014

RV-14 is located on 411 Riverleigh Avenue (SCTM # 900–139–2–75) and contains a small single story building with a brick chimney and wood shingles. The building was likely constructed in the 1920s or 1930s and although it does not appear to be significant individually, it may be eligible a landmark as part of a group.

Photo of 411 Riverleigh, Source: Town of Southampton Historic Resources Survey, 2014

The remaining eight properties identified in the Historic Resources Survey are not located in areas that are shown as redevelopment areas under the Theoretical Development Plan.

Archaeological Resources

Parts of the Study Area are, located within areas identified by the NYS OPRHP as archaeologically sensitive, which in this instance is any area within a half-mile of a known resource location (see **Figure 8-1**). As shown on the Historic and Cultural Resources Map, the areas identified as archaeologically sensitive include land in the northwestern quadrant of the

Study Area, including land around the traffic circle and along most of that area north of SR 24 along the Peconic River, the existing single-family residential neighborhood along the western boundary of the Study Area, and land that is situated north of the Riverwoods/MacLeod Community. The other archaeologically sensitive location is a small area in the northeastern corner of the Study Area which contains land that has been acquired and preserved by the Town, some wetlands that can't be developed, an area of dredge spoil deposits, a commercial property and some developed single-family residential properties.

A referral was submitted to the OPRHP's State Historic Preservation Office (SHPO) on August 24, 2015 on behalf of the Town of Southampton via the OPRHP's CRIS. This submission was made in order to determine the potential impact on cultural resources that may occur from the Proposed Action. The OPRHP responded to the referral on September 25 via CRIS, requesting additional information describing the nature of the proposed action. A full copy of the RRAP and proposed zoning amendments was sent to SHPO on September 25, 2015 via CRIS along with a request for additional input as to the specific information needed by the Office. A response is currently pending.

8.2 Potential Impacts

8.2.1 Visual Character

The Proposed Action itself would not directly impact the visual character, historic, or archaeological resources within the Study Area. However, site-specific development applications submitted under the adopted Zoning Amendments may have an effect on these resources as would any application under existing zoning regulations. The enactment of Code amendments as envisioned under the Proposed Action is a step toward improving the visual character of the existing underutilized Riverside Hamlet area. As described in **Section 7.2**, the proposed zoning amendments are largely "form-based" in nature, which establishes requirements on the form and location of buildings on parcels. This provides more consistent and compatible developments with enhanced streetscapes through the use of uniform street and building standards that are based on frontage type, site layout, building form, and integrated function, rather than simply the use proposed. The proposed code amendments establishes protocols for proposed buildings, including build-to lines

Sample rendered view of Hamlet Center, S.R. 24 looking west.

(BTLs), build-to zones (BTZs), window glazing, storefronts, significant corners, landscaping, terminating vistas, and façade articulation, which will significantly enhance the visual quality of the built environment. The proposed Zoning Amendments also contain standards for the provision of civic spaces including arcades, courtyards, greens, piazzas, plazas, squares, pocket parks, and pedestrian ways, that could be further enhanced with landscaping and user amenities (e.g., benches, public art, monuments, statues, fountains, stonework/pavers, landscaping, etc.). This approach will establish consistent, inviting and pedestrian friendly Hamlet character in the area and create a new image and sense of place and community pride in the area.

Sample precedent imagery of Hamlet Centers

The proposed Overlay Zones also require that storefronts be created at key street front locations, as defined by the Zoning Standards Map, thereby promoting street level interest and activity, social interaction, and enhancing the overall function and appearance of highly visible land uses that face and address major streets. Consequently, standards for achieving the visual intent of storefronts are an important design feature and component of the code and foster the creation of a more traditional mixed use community center.

Building height is also an important element of the visual character of the Hamlet revitalization. The RO Zones require that any building opting into the RO-1, RO-2 or RO-3 Zones build a minimum two-story building, thus promoting a more traditional downtown setting with mixed use buildings and greater density in the Hamlet center (nearest the traffic circle). Additional height may be achieved if a parcel or assemblage of small lots has adequate lot area and street frontage. Minimum lot size of 15,000 SF and 150 feet of frontage are required to achieve 3.5 stories in RO-1, RO-2 and RO-3 and 2.5 stories in RO-4, RO-5 and RO-6 under Riverside Incentive Bonus 1. Minimum lot size of 60,000 SF and 300 feet of frontage are required to achieve 4.5 stories in RO-1, 4 stories in RO-2 and RO-3, and 3.5 stories in RO-4 and RO-6 under Riverside Incentive Bonus 2. Incentivizing the assembly of very small or substandard sized lots, and the demolition and redevelopment of blighted or obsolete land and buildings will help to encourage carefully planned and coordinated mixed use development. The proposed form based code and incentives for additional height through the assemblage of parcels are intended to promote a cohesive and attractive built environment at a scale that is comparable to what exists in adjoining downtown Riverhead. The proposed heights and densities are designed to draw in residents and visitors and provide the critical mass necessary for successful hamlet revitalization.

The Zoning Amendments do not dictate any particular architectural style. The RRAP, which is the culmination of a robust community participation process, contains photographic images which represent the architectural design preferences of participants, and which will guide the quality of the built environment to be pursued as part of site-specific development applications. Quality architecture and signage, landscaping, useful and appealing public spaces, and attractive and functional streetscapes will improve and enhance the visual environment.

The parcels considered for redevelopment in the Theoretical Development Scenario are shown in **Figure 7-3**. It is noted that many of the properties included as redevelopment parcels have contributed to blight, exhibit low or poor aesthetic qualities, pose public safety concerns or have been identified as "sites of environmental concern" due to past or present site. Development constructed in accordance with the Zoning Amendments may be visible from the National Register Historic District and the riverfront walk located to the north of the Study Area within Downtown Riverhead. Potential impacts on the historic district are discussed below. In particular, development within the RO-1 or RO-6 districts may be visible from the historic district area. Depending on whether an applicant pursues incentive bonuses, buildings may be constructed at a height which is not presently allowed, and upper stories of future buildings may be visible from a greater number of vantage points than would occur at present. Development within portions of the Riverside hamlet located closest to the river would be visible from the waterfront riverwalk located on the north side of the river, within the Town of Riverhead. Views are not expected to be vastly altered, nor dissimilar from the views along the north side of the River, where two to four story buildings exist along Main Street in Riverhead. Regulations such as those applied to the wetland areas, as well as the APOD, and CPB CGA and would restrict clearing and disturbance along much of the waterfront, therefore limiting the change in views of the existing natural visual assets including natural vegetation, the Peconic River, and nearby wetlands that exist and are expected to remain in the central and eastern portions of the Study Area shoreline. As described above, the building form, setbacks and architectural features of any building constructed under the proposed ROD are regulated, providing for consistent and enhanced building form and site design. Therefore no significant adverse impact to visual resources is anticipated.

A key finding of the public outreach efforts documented in the RRAP is the desire for increased accessibility to the Peconic River waterfront. Increasing opportunities for public access and visibility of the waterfront would significantly improve the potential for public views of the River from Riverside, which are largely hidden from view under current conditions. Construction of a promenade and/or viewing platforms at certain locations along the Peconic River would help to enhance physical and visual access to these natural aesthetic resources. The Zoning Amendments anticipate the construction of a waterfront trail or boardwalk. Such a boardwalk/potential trail with viewing platforms along the river would also provide public access and visibility to natural resources, as well as potential public viewing locations for

Example images of a river boardwalk and WaterFire™ event (RRAP, Appendix 3)

WaterFire™ events. WaterFire™ is a public art installation and community arts event (see RRAP, **Appendix A-1**) which the Towns of Riverhead and Southampton are jointly working to bring to the Peconic River as part of revitalization efforts.

8.2.2 Cultural Resources

Historic Resources

The proposed ROD and future development are not wholly or partially within any historic district or contain any historic building, structure, facility, site, landmark, or prehistoric resource listed on the National Register of Historic Places, or that has been proposed for designation by the New York State Board on Historic Preservation. Since there are no such structures or features in the Study Area, the removal of blighted buildings and other structures for site redevelopment is not considered a significant adverse impact but will in fact improve conditions and perhaps someday be considered itself historic in terms of Riverside's transformation and rebirth. Future development plans in Riverside will be reviewed by the Town of Southampton's Board of Architectural Review and input should be requested from the Town of Riverhead in this regard.

Possible Local Historic Resources

The Town of Southampton Historic Resources Survey identified 14 structures which may have the potential for historic significance. No landmark status has been achieved of any of the buildings identified in the survey to date. Six of the structures are located within sites that have been identified on the Theoretical Development Scenario for redevelopment. With the exception of the property of 10 Flanders Road, no specific evaluation has been made of structures to determine if the buildings are structurally sound or whether the preservation would add to the redevelopment concept. In the case of 10 Flanders Road, the Theoretical Development Scenario envisions restoration of the main building and incorporation of the structure into the redevelopment. Further evaluation on a site by site basis may be required for each of the sites if redevelopment is pursued. The proposed ROD provides a mechanism for evaluating the impacts of construction that incorporate or result in the removal of any structure at the time of site plan application and for a building permit, as follows:

- Every application for site plan approval for the construction of a building or structure requiring site plan review shall be referred by the Planning Board to the Board of Architectural Review and be reviewed by the entire Board. Applications reviewed under this subsection shall result in the preparation of an advisory report to assist the Planning Board in its consideration of the site plan. The advisory report shall be limited to the architecture of the proposed buildings, structures and signage and shall include a specific recommendation that the buildings, structures or signs be approved, denied or approved with conditions which relate specifically to the criteria set forth in §330.

- Every application for a building permit for the construction of a building or structure not requiring site plan review shall be referred by the Building Administrator to the Board of Architectural Review and be designated by the Building Administrator as "substantial" or

"nonsubstantial" construction. Applications for nonsubstantial construction may be reviewed by a committee of one member of the Board, but all applications for a sign permit and all applications for substantial construction shall be reviewed by the entire Board. Applications reviewed under this subsection shall be approved, denied or approved with conditions which relate specifically to the criteria set forth in Section 330.

Archaeological Resources

Portions of the Study Area are located within areas identified by the OPRHP as archaeologically sensitive (**Figure 8-1**). These areas include land at the northwest end of the Study Area around the traffic circle and western boundary of the ROD and in the northeast corner of the ROD. These areas primarily include land that:

- has been significantly disturbed by past clearing, grading, cutting, filling, mixing, paving, and redevelopment based on soils (Ur and CuB urban soils) (**Figure 3-1** and **Section 3.1.2**) and land use (**Figure 7-1** and **Section 7.1**);
- contains wetlands that cannot be developed and will be further protected by nondisturbance buffers pursuant to any required wetlands permits;
- preserved Town and County lands; or
- that is a dredge spoil disposal area containing Td soils, and therefore are either unlikely to be developed and unlikely to contain intact cultural resources (**Figure 3-1** and **Section 3.1.2**).

If future development is proposed within State designated archaeologically sensitive areas that have not been significantly disturbed by past land activities, and/or are shown to contain native soils, the Town will evaluate a site-specific development plan and determine whether a Phase I archaeological survey or cultural resource evaluation is warranted. A cultural resource evaluation should include contact with the State Historic Preservation Office (SHPO) for review and input. If requested by SHPO, additional analysis may be required to determine actual site sensitivity and mitigation of any significant impacts.

A referral of the Proposed Action was submitted to the SHPO on August 24, 2015 on behalf of the Town of Southampton via the OPRHP's CRIS. This submission was made in order to determine the potential impact on cultural resources that may occur from the Proposed Action. The OPRHP responded to the referral on September 25 via CRIS requesting additional information before it could provide comments. Additional information was sent to SHPO on September 25, 2015 via CRIS along with a request for additional input as to the specific information needed by the Office, however, a response has not yet been received. The Town will continue to coordinate with SHPO to identify any potential impacts or concerns it may have.

8.3 Mitigation Measures

The Proposed Action is not anticipated to result in any significant adverse impacts to visual character, as the code amendments include design standards that are intended to improve the

form of development and enhance the public realm and pedestrian experience. Such form-based standards include many elements that are intended to improve visual character such as building form standards, public space standards, architectural standards and landscaping standards. Therefore no mitigation is required. The Proposed Code Amendments provide the ability for the Town to adopt, based upon a favorable recommendation by the Town Board and Planning Board, an architectural and landscape design manual for use in the ROD to ensure architectural style and consistency with the revitalization vision of the community as documented in the RRAP.

With respect to potentially historic structures within the community, future actions relating to the analysis of potentially historic structures will be required and involve review by the Planning Board under site plan review authority with referral for Architectural review where appropriate.

With regard to cultural resources, potential impacts associated with the Proposed Action are either beneficial or similar to that which could occur under the existing zoning. Therefore, Proposed Action is not anticipated to result in any significant adverse impacts to community character and no mitigation measures are required.

Future site-specific development applications (conforming to the Proposed Action) submitted to the Town will be subject to site-specific review of visual and/or cultural resource impacts. This will include:

- If future development is proposed within identified areas of archaeological sensitivity that have not been previously disturbed, a Phase I archaeological survey/cultural resource evaluation will be required. A cultural resource evaluation should include contact with the SHPO for review. Additional analysis may be required to mitigate any potential impacts based on the findings of the cultural resource evaluation.

- Every application for site plan approval for the construction of a building or structure requiring site plan review shall be referred by the Planning Board to the Board of Architectural Review and be reviewed by the entire Board. Applications reviewed under this subsection shall result in the preparation of an advisory report to assist the Planning Board in its consideration of the site plan. The advisory report shall be limited to the architecture of the proposed buildings, structures and signage and shall include a specific recommendation that the buildings, structures or signs be approved, denied or approved with conditions which relate specifically to the criteria set forth in § 330.

- Every application for a building permit for the construction of a building or structure not requiring site plan review shall be referred by the Building Administrator to the Board of Architectural Review and be designated by the Building Administrator as "substantial" or “nonsubstantial” construction. Applications for nonsubstantial construction may be reviewed by a committee of one member of the Board, but all applications for a sign permit and all applications for substantial construction shall be reviewed by the entire Board. Applications reviewed under this subsection shall be approved, denied or approved with conditions which relate specifically to the criteria set forth in Section 330.

9.0 COMMUNITY SERVICES

Community services are publicly funded agencies, organizations and facilities that provide essential services to the community. Provision of adequate public services and facilities is essential for ensuring the health, safety, welfare and coordinated growth of a community and promoting its cohesiveness, functionality, and sustainability. The various community services and facilities that are relevant to the ROD include public schools, emergency services (i.e., police, fire, and ambulance), sewer, water, electric, natural gas utilities, and parks and recreation. Each service provider was contacted by letter and individual follow up meetings were arranged with major local service providers to inform them of the Proposed Action and to solicit input with respect to their service capacities and capabilities. Written correspondences to and from service providers and recorded meeting minutes are provided in **Appendix J**.

9.1 Existing Conditions

9.1.1 Property Taxes

The majority of the Town's revenues are levied through property tax generation, which is based upon a rate per $1,000 of assessed valuation for a given parcel. As indicated in **Table 9-1**, property owners within the Study Area are currently taxed at varying rates depending upon location. All non-exempt properties pay taxes to the Riverhead Central School District (CSD), Riverhead and Baiting Hollow Library District, Southampton Town, Suffolk County, Metropolitan Transportation Authority, Highway, Police, Emergency Dispatching, Out of County Tuition and the Part-Town outside of Villages tax, Northampton Ambulance District, Riverhead Fire District and Riverside Lighting District. The combined rate for these is 18.0077 per $1,000 of assessed value. In addition, several properties within the Study Area are located in the Southampton Fire District (tax rate of 0.2729) and the Flanders Water District (tax rate of 0.4893), but all of the properties in these districts currently have tax exempt status.

The majority of the subject redevelopment area is privately owned and therefore is not exempt from property taxes. Twenty percent of the assessed value within the study area is tax-exempt under current conditions. According to the Town of Southampton Assessor's Office, the tax parcels that comprise the Study Area are assessed at $158,629,458 (100 percent of the market valuation), of which taxable value ranges between $126,374,702 under County and Southampton standards, to $135,386,718 for the Riverhead and Baiting Hollow Library District. This translates into a current generation of $2,268,592 in property tax revenues. Of this, $1.7 million or 75.9 percent of the total taxes generated by the Study Area are distributed to the Riverhead UFSD, and $139,809 or 6.2 percent of the taxes are allocated to the Riverhead Fire District. An additional $98,623 or 4.3 percent of the total tax revenues are distributed to Suffolk County, which includes the General Fund, the Police Department, and Out of County Tuition. Approximately 4.5 percent of the tax revenue is levied to the Town of Southampton, which includes the Town/Part Town funds, Highway Tax and the General Town. These three line items combine to total $102,452 in revenues. The Riverhead Fire District and Riverhead and Baiting Hollow Library District levies a total of $207,015, or 9.2 percent of the total tax revenue generated by the subject property. The balance of the current property tax revenues are

apportioned to various other taxing jurisdictions including the MTA commuter tax, as seen in **Table 9-1**.

Table 9-1
TAX GENERATION & DISTRIBUTION, 2014 TAX YEAR
Existing Conditions

Levy Name	Rate Value (per $1000 AV)	Property Assessment	Taxable Value	Taxes Raised
Suffolk County General	0.2086	$158,629,458	$126,374,702	$26,362
NYS Real Property Tax Law	0.1435	$158,629,458	$126,374,702	$18,135
MTA	0.0063	$158,629,458	$126,374,702	$796
Out of County Tuition	0.0053	$158,629,458	$126,374,702	$670
General Town	0.3769	$158,629,458	$126,374,702	$47,631
Highway	0.3739	$158,629,458	$126,374,702	$47,252
Police	0.5665	$158,629,458	$126,374,702	$71,591
Emergency Dispatching	0.0495	$158,629,458	$126,374,702	$6,256
Part-Town Outside of Villages	0.0599	$158,629,458	$126,374,702	$7,570
Riverhead School District	13.7966	$158,629,458	$124,827,958	$1,722,201
Riverhead & Baiting Hollow Library District	0.4964	$158,629,458	$135,386,718	$67,206
Riverhead Fire District	1.0637	$151,530,658	$131,436,233	$139,809
Southampton Fire District	0.2729	$7,098,800	$-	$-
Riverside Lighting District	0.1635	$151,530,658	$131,434,733	$21,490
Flanders Water District	0.4893	$7,098,800	$-	$-
Northampton Ambulance District	0.6971	$158,453,358	$131,436,233	$91,624

9.1.2 Public Schools

The community of Riverside is served by the Riverhead Central School District (RCSD) and its seven public schools (**Figure 9-1** at the end of this document). The public schools comprising the RCSD and their 2013-14 enrollments are shown in **Table 9-2**.

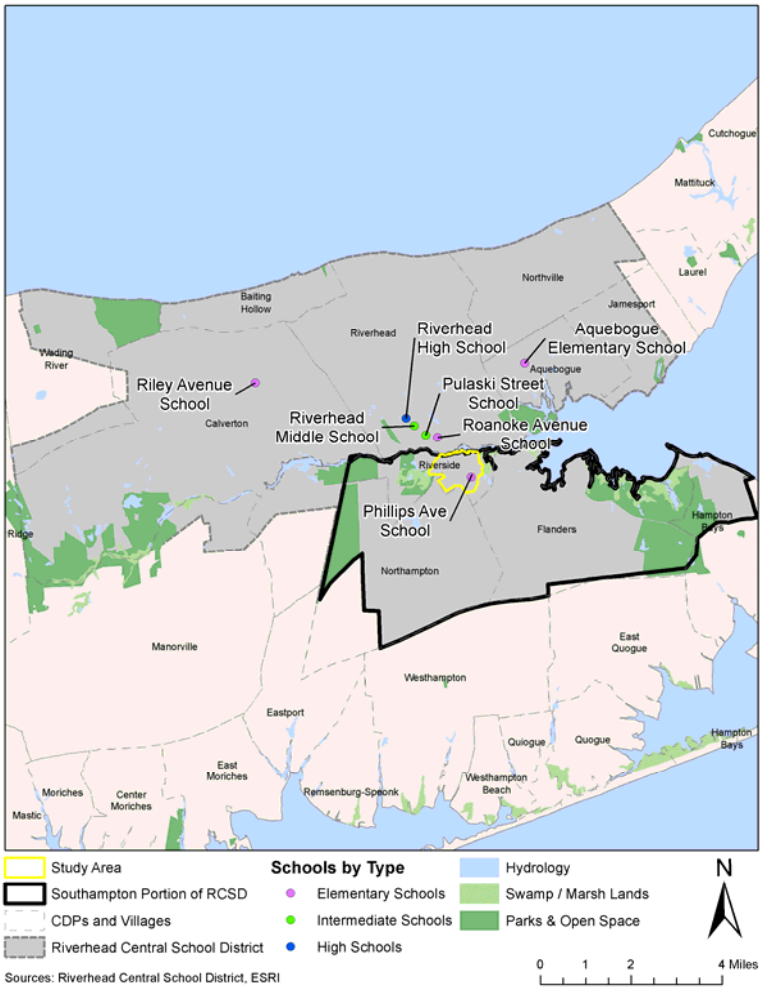
Table 9-2
RIVERHEAD SCHOOL DISTRICT, SCHOOLS ADDRESSES AND ENROLLMENT
2013-2014

School	Address	Enrollment 2013-14
Phillips Avenue Elementary School*	141 Phillips Avenue, Riverhead/Riverside	586
Aquebogue Elementary School	499 Main Road, Aquebogue	461
Pulaski Street Elementary School	300 Pulaski Street, Riverhead	745
Riley Avenue Elementary School	374 Riley Avenue, Calverton	578
Roanoke Avenue Elementary School	549 Roanoke Avenue, Riverhead	396
Riverhead Middle School	600 Harrison Avenue, Riverhead	709
Riverhead Senior High School	700 Harrison Avenue, Riverhead	1,570
Total		**5,045**

* Located within the Study Area

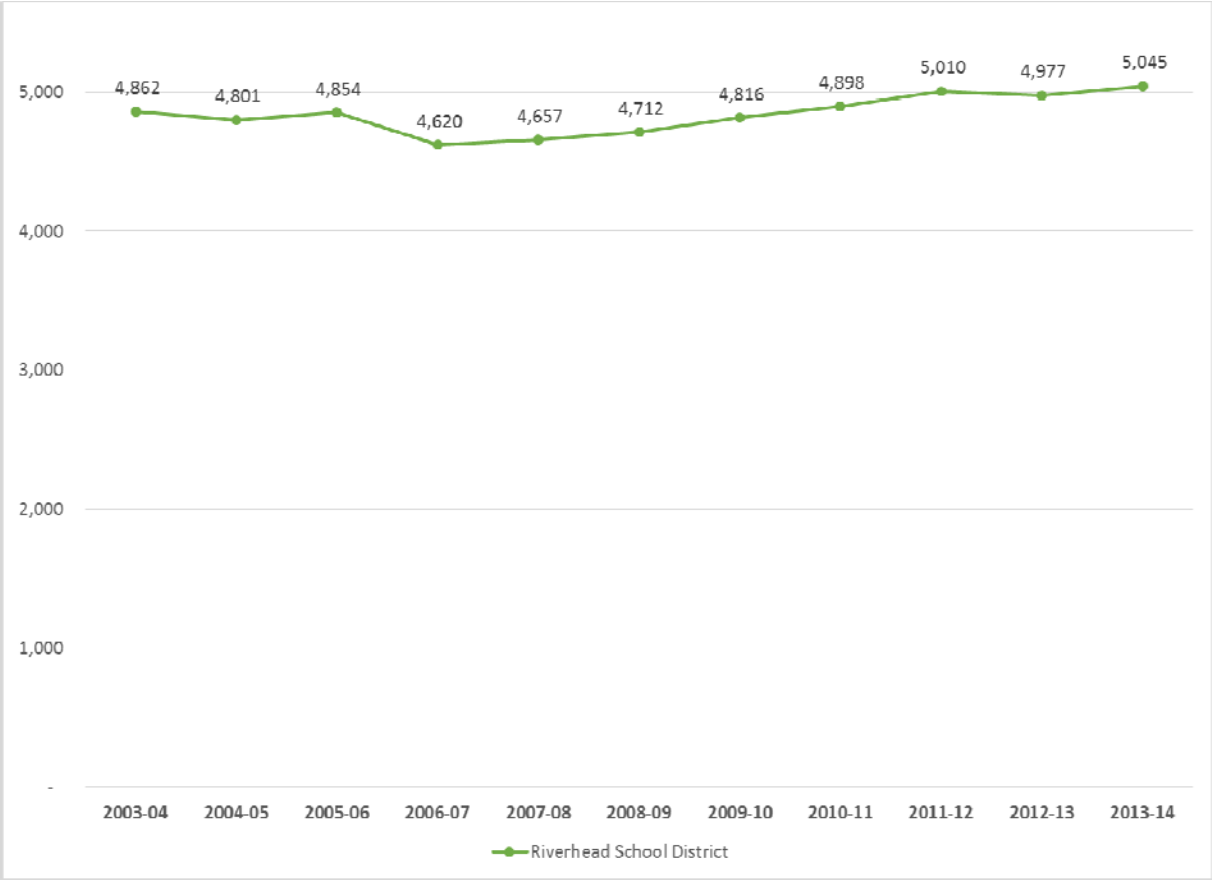
Several small communities within the Towns of Southampton and Riverhead fall within the CSD's boundaries, including the Hamlets of Riverside and Flanders in the Town of Southampton and the Hamlets of Calverton, Aquebogue, Jamesport, and Baiting Hollow, a portion of Wading River, and Downtown Riverhead and in the Town of Riverhead. Children living in Riverside who are enrolled in public schools would attend Phillips Avenue Elementary, Riverhead Middle School and Riverhead High School. In addition, there is also a New York State Charter School (i.e., the "Riverhead Charter School") in nearby Calverton. The Riverhead Charter School provides educational services to children in grades K-8 if parents wish to enroll them. The school is an independent institution established by teachers, parents, and community groups under the terms of a charter with a local or national authority and provides what the Charter School refers to as a "private school environment in a public school setting" (Riverhead Charter School, 2013). The Southampton Head Start (SHS) is also located in the Study Area at 271 Flanders Road (SR 24). SHS provides important educational services to area preschool children to prepare them for secondary school. **Figure 9-1** shows the boundaries of the Riverhead CSD, the communities that are included in the district, and the locations of its schools.

Figure 9-1
RIVERHEAD CENTRAL SCHOOL DISTRICT
BOUNDARIES, SCHOOLS AND COMMUNITIES



As seen in **Chart 9-1** (see also **Appendix L**), the cumulative enrollment within the school district has increased by 183 students, or 3.8 percent, over the eleven (11) years between 2003-04 and 2013-14. Growth has increased more rapidly in the short term, with the number of students increasing by 7.1 percent, or 1.4 percent each year between 2008-09 and 2013-14. This reflects anecdotal information received from the Riverhead CSD that there has been a steady increase of new students to the District since 2008-09—an average net increase of 65 per year according to reported enrollment data.

Chart 9-1
RIVERHEAD CSD ENROLLMENT TRENDS



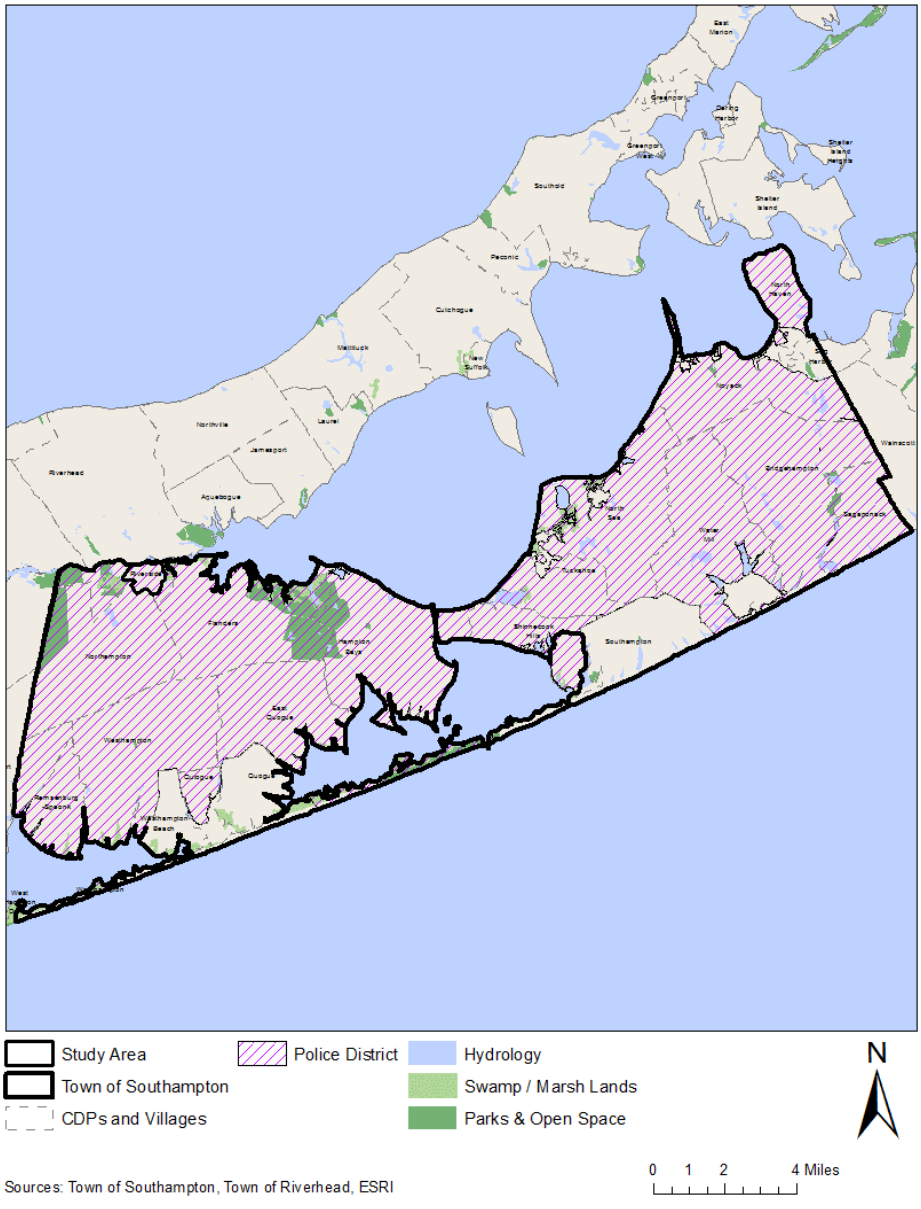
Source: New York State Education Department; Analysis by Urbanomics

9.1.3 Police Protection

Town of Southampton Police Department

The Town of Southampton's Police Department (SHPD) provides traffic control and policing services to the community of Riverside and the rest of the unincorporated Town (**Figure 9-2**). The Department's headquarters are centrally located at the Town's Jackson Avenue Complex at the corner of Jackson Avenue and Old Riverhead Road in Hampton Bays. The barracks is located approximately 6.5 miles south of the Study Area (which falls within SHPD Sector A23) or approximately five to seven minutes from headquarters, or less for officers who are patrolling the Riverside area.

Figure 9-2
SOUTHAMPTON POLICE DISTRICT



The SHPD is a full-service police force. It provides law enforcement services over 122 square miles within the Town, not to mention the Villages of North Haven and Sagaponack, and serves a year-round population of over 60,000 residents, which often more than doubles on weekends in the summer. Historically, the Department employed 102 officers; however, budget cuts resulted in a decrease in police officers due to attrition and currently the SHPD has total of 92 police officers, including 58 patrol officers and the Town-wide Community Response Unit consisting of two officers. The SHPD hires from a Town list, therefore, initially officers are residents of the Town, however many move out of the Town due to a general lack of affordable housing in the Town.

Patrol for the Sector A23 car is covered by one officer 24 hours a day, 7 days per week; however, this same area was formerly served by two officers when the Department had a staff of 102 officers. The Department conducts criminal investigations, and provides staffing for an E-911 dispatch system, 24 hours a day and 365 days per year. The department administers a number of programs including, Crime Prevention, Neighborhood Watch, Citizens Police Academy, and Silver Alerts for missing persons. It also provides Medicine Disposal Locations, and representation on numerous advisory boards, panels, and committees (Town of Southampton, 2015). In addition, there is coordination between the Department and the Riverhead Police Department, headquarters nearby on Howell Avenue in Riverhead. In addition, the State Police Barracks is located within the Study Area (though is not a walk-in facility). The County Sheriff is also headquartered in the nearby County Center.

The Department is funded by taxpayers and provides police associated emergency services. In 2014-2015 the Town raised $20,966,728 in taxes for police services with an increase of 3.6 percent over the previous year. The tax rate was 0.5665 per $1,000 of assessed value. However this cost did not include emergency dispatching service (911). The additional dollars raised in 2014-2015 for emergency dispatching was $2,142,364.

A letter was sent to the SHPD informing it of the Theoretical Development Scenario and requesting general information about the force, its coverage of Riverside, and its capabilities for accommodating increased service demands. Subsequent to this mailing, representatives of the Town of Southampton Department of Land Management (DLM), Master Developer, Renaissance Downtowns and environmental planning consultant Nelson, Pope & Voorhis arranged a meeting with the Chief of Police, Robert Pearce and Captain Schurek on September 18, 2015 to present the proposed RRAP, solicit input regarding current SHPD operations and existing conditions, identify any issues or concerns the SHPD may have regarding the Proposed Action, and discuss the processes and procedures of the SEQRA as it relates to this Action. A summary of the information obtained during that meeting is provided in **Appendix J**.

New York State Police

The New York State Police operates a barracks located off of Riverleigh Avenue in Riverside. This barracks (Troop "L") is relatively new to this location but replaces another local barracks that had previously operated several miles to the south in the Flanders/Hampton Bays area, near the former site of the "Big Duck." Troop L serves the entire East End of Long Island, which includes the five towns of the Peconic Region: East Hampton, Southampton, Riverhead,

Southold and Shelter Island, as well as residents of the Shinnecock Nation. Troop L works toward ensuring the safety of the State's roadways, preventing and investigating crime, preparing for and responding to emergencies and disasters, and providing support to other law enforcement agencies, including the Town Police. (New York State Police, 2015)

There are approximately 35 sworn members of the State Police that are assigned to this location and the barracks provides over 8,000 square feet of space, including a garage and storage space.

9.1.4 Fire Protection

The Riverhead Fire District/Riverhead Volunteer Fire Department (RVFD) provides fire protection services to the community of Riverside (**Figure 9-3**, below). The District, which was established in 1836, covers approximately 48 square miles stretching across the Town of Riverhead and into parts of the Southampton and Brookhaven. Currently, the Department has approximately 175 volunteer firefighters. The District's companies, facilities and equipment are summarized below in **Table 9-3**.

Figure 9-3
RIVERHEAD AND SOUTHAMPTON FIRE DISTRICTS

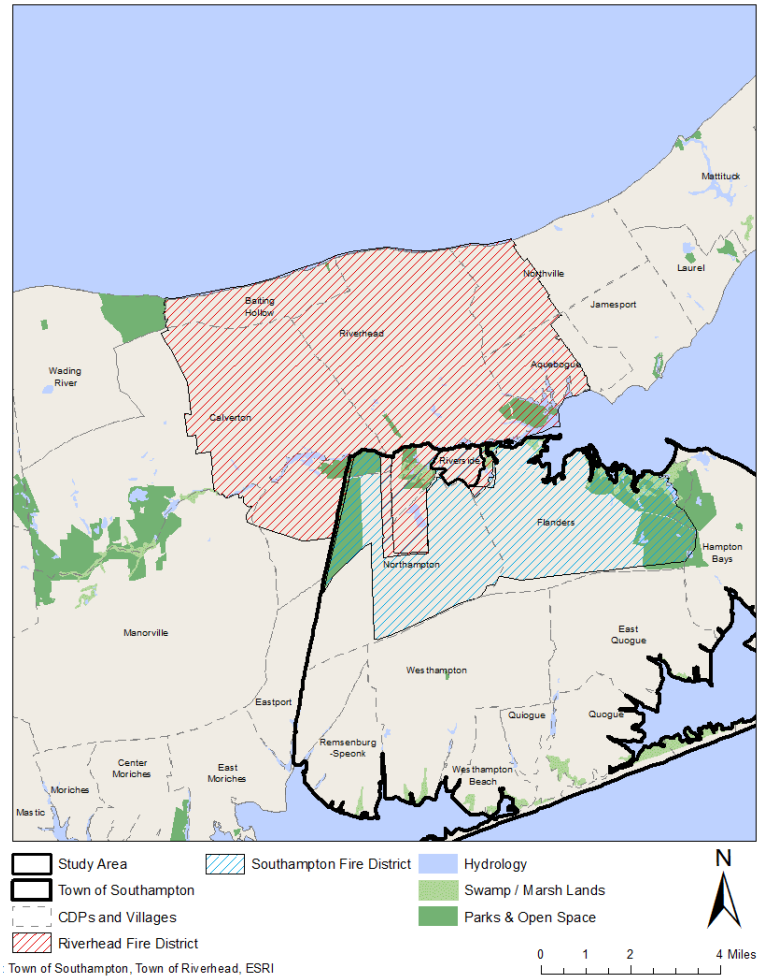


Table 9-3
RIVERHEAD FIRE DISTRICT
COMPANIES, FACILITIES, AND EQUIPMENT

Companies	Facilities	Equipment
Redbird Hook & Ladder Co. 1	Headquarters, Roanoke Ave., Riverhead	6 Engines
Fire Police Patrol Co. 1	Station 1, Hamilton Ave., Riverhead	2 Ladder Trucks
Reliable Engine Co. 1	Station 2, Hubbard Ave., Riverhead	1 Rescue Truck
Washington Engine Co. 2	Station 3, Twomey Ave., Calverton	3 Brush Trucks
Ever-Ready Engine Co. 3	Training House	1 Tanker
Eagle Hose Co. 4		1 Command Center Vehicle 10-Man Rescue Boat

The Town of Riverhead collects taxes from property owners within the Fire District to pay for the Fire Department's operating costs. In 2014-2015 the tax rate for Riverhead's Fire District was 1.0637 per $1,000 of assessed value. The Southampton portion of the district raised $218,023, a decrease of 6.7 percent from the previous year.

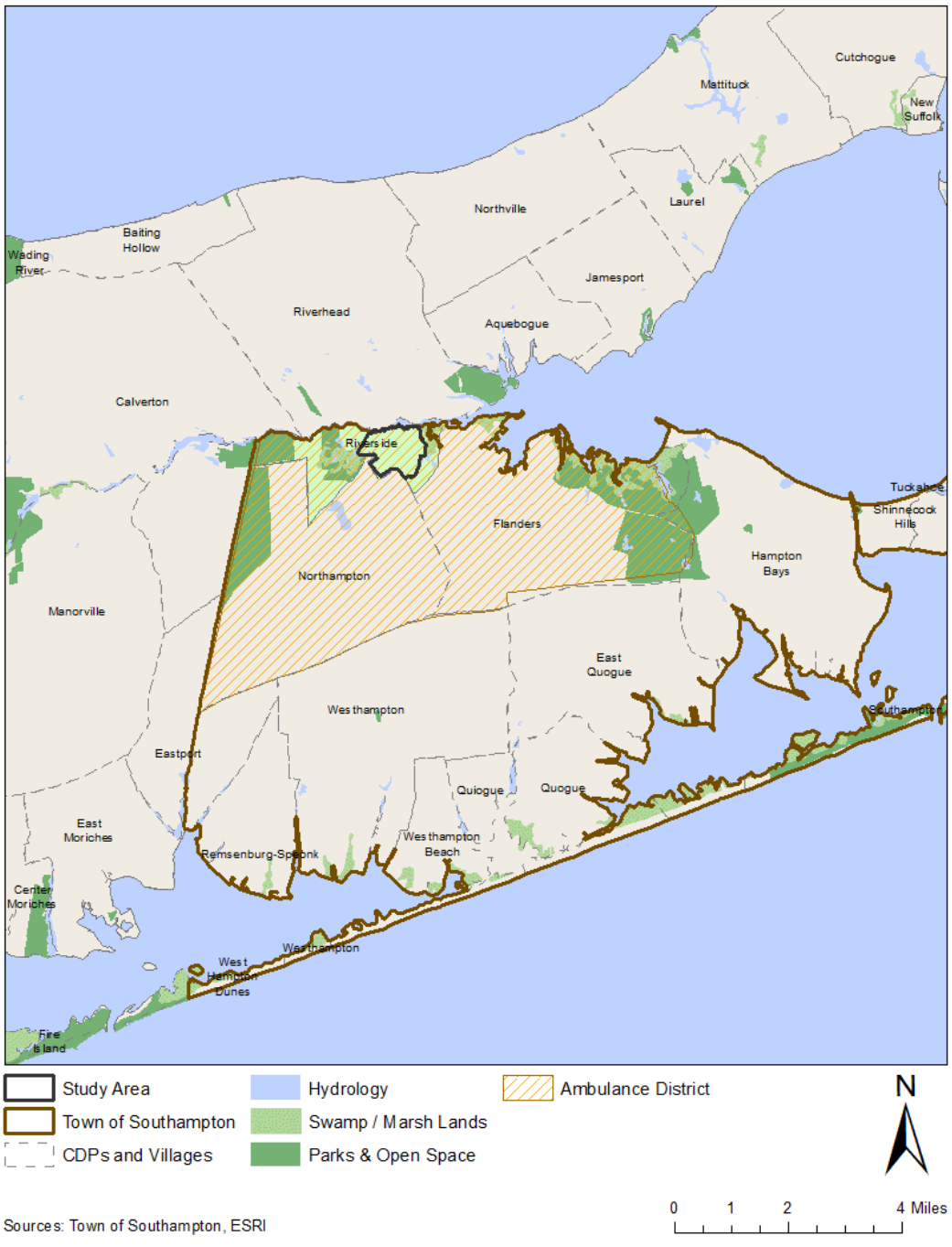
A letter was sent to the RVFD requesting information regarding the Department's ability to properly serve the area if the proposed zoning amendments are adopted and a follow up meeting was scheduled. Correspondence to the RVFD and meeting minutes for the meeting held August 28, 2015 are provided in **Appendix J**. The District indicated that they currently have adequate equipment and ladder reach to serve the proposed four to 4.5 story buildings proposed. The Department indicated that buildings should be designed with sprinkler systems and a separate standpipe for dedicated fire flow water service. Additionally, the Department noted that fire access needs to be provided in the rear of the buildings to enable fire equipment to access the buildings (approximately 55 foot wide area). The area currently has adequate water pressure; however the Department noted that adequate pressure needs to be maintained to service larger/taller buildings proposed for construction.

9.1.5 Ambulance Service

Ambulance services in Riverside are provided by the Flanders-Northampton Ambulance Company (FNAC). FNAC headquarters are located at 641 Flanders Road, approximately 0.6 of a mile east of the Study Area. The FNVA property is owned by the Town and is 51 feet in width, averages 429 feet in length and has an area of approximately one-half acre. The FNVA operates two small adjacent buildings at this location, one of which is a small three-bay garage that houses its ambulances and equipment and the other is its meeting room and offices. According to the Town of Southampton Division of GIS, FNVA's taxing district covers 29.6 square miles which includes the communities of Riverside, Northampton, and Flanders Two

square miles of the district is Peconic Estuary underwater lands (**Figure 9-4**). The ambulance corps was organized in 1983, incorporated in 1984, and had its first call in May 1985.

Figure 9-4
NORTHAMPTON AMBULANCE DISTRICT



The FNVA currently has a staff of between 25 and 32 volunteers plus two *per diem* Advanced Life Support (ALS) paramedic first responders who assist volunteers during the day. The

FNVA's Emergency Medical Services (EMS) responds to between 1,200 and 1,500 alarms per year. EMS personnel respond to a wide variety of calls ranging from traffic accidents and assistance to the elderly, to drug overdoses and violent crimes. Major facilities within the FNVA's jurisdiction include Suffolk County Community College's "Riverhead" Campus, the Suffolk County Correctional Facility, Evan K. Griffing County Center, local methadone and Veterans Administration (VA) clinics, a general health clinic, and estensive State and County parklands. The FNVA also provides/receives mutual assistance services to/from adjacent ambulance districts when backup is needed or special events are held in or adjacent to the area. In total, the FNVA owns and operates two ambulances and has three chief vehicles, two quads, one Gator ATV, and one ALS first responder vehicle.

As of the 2014-15 tax year however, the Northampton Ambulance District was charging a levy of 0.6971 per $1,000 of assessed value, yielding $498,346 in revenues from its properties within the Town of Southampton alone. To supplement its funding FNVA conducts a total of three fundraisers every year, a district-wide mailing once-a-year, and FNVA volunteers stand out at the CR 31/CR 104 traffic circle to collect donations twice-a-year.

In order to promote volunteerism, Suffolk County administers a program that assists ambulance volunteers with college tuition; however, despite the clear benefit of this program, the number of young people who volunteer to the Corps is down from what it had been in years past. Representatives of the FNVA also periodically go to local schools and the Community College to recruit volunteers for service and also administer a local youth group program.

The ambulance company has through the years, expressed financial concerns due to the fact that Suffolk County owns approximately 80 percent of the land in the Flanders-Northampton district leaving just 16 percent of the land area to pay 100 percent of the taxes (Merrill, 2006) not to mention the significant demands of serving the nearby County facilities. In order to alleviate this burden, service reimbursement strategies have been considered in recent years but have not been instituted (Merrill, 2006 and Moran, 2012).

9.1.6 Water Supply

The Hamlet of Riverside, like all of Suffolk County's communities, relies on groundwater from Long Island's sole source aquifer to fulfill its domestic and irrigation water demands. Drinking water in the Riverside community is delivered from one of two sources: 1) private on-site wells; or 2) public wells that are connected to the Suffolk County Water Authority's (SCWA's) Riverside Water District (RSWD). The RSWD is operated by the SCWA through an agreement with the Town of Southampton while the source of the RSWD's water supply is SCWA's Flanders Distribution Area ("Distribution Area 39). According to the SCWA's 2015 budget, the RSWD has service agreements with 588 customers. The wellfield serving the Riverside community is SCWA's Oak Avenue well. The well is completed in the Upper Glacial aquifer to a depth of 118 feet with the screened interval of the well at elevations -1.23 to -31.23 feet below msl. Water mains are currently available along nearly every street in the Study Area with the exception of those within the three mobile home parks and a few minor or unimproved/paper streets to which service could easily and relatively inexpensively be extended in the future if

needed (**Figure 9-5** at the end of the main GDEIS document). According to Suffolk County Water Authority's 2007 Distribution Maps:

- the main along SR 24 is 16 inches in diameter;
- the main along Enterprise Zone Drive 12 inches in diameter;
- the main along Peconic Avenue is 10 inches in diameter;
- mains along Lake Avenue, Riverleigh Avenue, Riverhead-Quogue Road, Old Quogue Road and Ludlam Avenue are 8 inches in diameter; and
- all other secondary streets that are equipped with mains have either 6-inch or 8-inch diameter mains.

The Riverside distribution system is also interconnected to the Riverhead Water District distribution system near the County Center. Properties in the Study Area that are not currently connected to the distribution system receive their water from private wells.

SCWA's supplies are subject to extensive water sampling to monitor water quality and ensure continued delivery of potable water to its customers and determine the suitability of water supply treatment. **Section 4.1.3** discusses current groundwater water quality in the area based on the 2014 water quality monitoring data for the RSWD/Flanders Distribution Area No. 39 provided in the SCWA's annual report.

The cost of water service whether from private wells or public water mains, is a burden that rests with the individual private property owner. A small portion of the Study Area is located within the Flanders Water District. The total assessed value of these properties is only $7,098,800 and all are tax exempt.

A letter was sent to the SCWA requesting general information about the district and requesting input as to any concerns the SCWA might have and a meeting was held with the SCWA on September 27, 2015, which is summarized in **Appendix J** and in **Section 9.2.6** of this Generic DEIS.

9.1.7 Sewage Treatment

The Study Area is not currently served by municipal sewage treatment facilities, nor does the Town of Southampton provide such services in the area. Therefore, sewage disposal in Riverside involves the use of individual on-site cesspools and septic systems. These conventional on-site sewage disposal systems are essential site infrastructure that are designed to collect, treat, and dispose of sewage through the processes of solids settling, soil filtration, and chemical and biological transformation that occur in the septic tank and/or soil surrounding leaching areas; however, provide only minimal sewage treatment and little to no nitrogen removal. The closest publicly owned and operated wastewater treatment facilities are:

- The Evan K. Griffing County Center/Suffolk County Prison Facility in Riverside, which is located outside the Study Area but in close proximity to its western boundary;

- Gabreski Airport which is located off of Riverhead Road in Westhampton Beach, which is roughly 5 miles due south of the Study Area and south of Sunrise Highway;
- Suffolk County Community College ("Riverhead Campus")[1] 121 Speonk Riverhead Road: This facility is located roughly 3.25 miles to the southeast of the traffic circle;
- Riverhead Sewage Treatment Plant located at 2 River Avenue, Riverhead, approximately one mile to the northeast of the area. The STP has sewer mains in downtown Riverhead near the traffic circle. This Riverhead STP serves the densely developed portions of the Town of Riverhead and its collection system does not currently extend into the Town of Southampton and the Riverside community. Past outreach to facility representatives has indicated an unwillingness to extend service to the Riverside community because the project is located in the Town of Southampton, not the Town of Riverhead and the plant's handling capacity and permits are based on the projected needs of the Riverhead service area and additional planned development along the CR 58 corridor.

9.1.8 Parks and Recreation

The greater Riverside/Flanders/Northampton community contains many large parks and preserved open spaces and wildlife habitats which have significantly diminished land development potential and the achievement of the benefits of economies of scale, while perpetuating a certain community character and quality of life. Preservation efforts in Riverside began to take form in the mid-1960s, when New York State dedicated approximately 2,500 acres of pine barrens for wildlife preservation, hiking, bird watching, hunting, and trapping. Operated and maintained by the NYSDEC and known as the "David A. Sarnoff Preserve," this preserved open space is located outside but along the southern boundary of the Study Area.

In 1987, Riverside underwent another open space milestone when Suffolk County purchased the area now known as "Cranberry Bog County Park." This park is located north of Wildwood Lake, south of Center Drive (CR 94), east of Center Drive South (CR 51), and west of the Lake Avenue (CR 63) and the Woodhull Avenue subdivision in the Town of Southampton. The County Park contains the Little Peconic River as well as Sweezy Pond and is within a portion of the Central Pine Barrens Core Preservation Area. The Hamlet also enjoys several acres of Town designated greenspace and recreational facilities including the 4.5-acre Ludlam Avenue Park, an "active" recreational facility located within the Study Area containing a baseball field, lighted outdoor tennis court and basketball courts, a playground and gazebo. More recently the County acquired a large tract of land on the north side of SR 24 in the Study Area and the Town also owns several large preserved properties near the River. Today, open space and parkland encompass a large portion of the Hamlet's total land area (not to mention significant nearby open spaces in Northampton, Flanders, Hampton Bays and Calverton) and nearly 58 acres of the Study Area and ROD. These public acquisitions, along with the Central Pine Barrens CGA as well as Central Pine Barrens CPA to the south of the Study Area, have led most of the development in the Riverside to be clustered around the traffic circle and along the SR 24 corridor.

[1] Although the address for this facility is "Riverhead, NY," the College is actually located in the Northampton section of the Town of Southampton.

Significant parkland, open space, and recreational resources and facilities existing either within Study Area or within a few miles of the Study Area include:

- Ludlam Avenue Park
- Unnamed public open space acquisitions along the River
- Phillips Avenue Elementary School
- New County open space along the Peconic River
- Cranberry Bog County Park
- David A. Sarnoff State Pine Barrens Preserve
- Wildwood Lake Park
- Grangebel Park (Riverhead)
- Maple Swamp County Park
- Birch Creek Pond County Park
- Sears Bellows County Park
- Flanders County Parkland
- Hubbard County Parkland
- Peconic Hills County Park
- Peconic River County Park
- Indian Island County Park (Riverhead)
- Indian Island Golf Course (Riverhead)
- Peconic River and Bays

9.1.9 Solid Waste Disposal

The Town does not provide curbside solid waste collection services. Residents of the Town can hire a rubbish removal contractor or drop off municipal solid waste and recyclables at one of its four transfer stations/recycling centers under the Town's "Pay-As-You-Throw" (PAYT) program. The PAYT Program provides a financial incentive for residential self-haulers to recycle. Residents place MSW waste in bags that are purchased from local supermarkets and hardware stores, while recyclables are kept separately and are discarded at Town transfer stations (Hampton Bays, Westhampton, North Sea or Sag Harbor) in the designated bin at no cost and later shipped off by private vendors for recycling. Individuals and families living in owner-occupied single-family homes may opt to dispose of household wastes at one of the Town's transfer stations. Riverside residents would likely choose the Hampton Bays transfer station as their primary disposal location as it is the closest (approximately 6.9 miles from the center of Riverside); although, some may be inclined to use the Westhampton Facility on occasion if it is more convenient, which is also relatively close to Riverside (approximately 8.6 miles from the hamlet center).

Businesses, industries and multi-family residential complexes are prohibited from utilizing Town transfer stations and therefore must contract with private carters who transport these materials to licensed disposal locations outside of the Town. Since the proposed zoning would allow primarily business and multifamily residences, it would be up to residential managers and individual business owners and operators to contract with a private hauler. Private haulers would cart these wastes out of Town for disposal at licensed solid waste disposal and recycling

facilities. The Town offers public education programs to encourage proper solid waste disposal practices and continually monitors and periodically develops or updates plans to ensure proper solid waste management.

The Town and Master Developer meet with the Town of Southampton Department of Municipal Works on September 18, 2015 to discuss the Proposed Action and receive any input, information or concerns it may have regarding solid waste management associated with the Proposed Action. Christine Fetten, Town of Southampton Department of Municipal Works, indicated that currently 85 percent of the solid waste generated in the Town is handled by private carters and therefore does not utilize the Town's waste transfer stations. Because development under the Overlay Districts would involve only multi-family and commercial uses, private waste carters would be required for waste collection and disposal. Therefore the Proposed Action would have no impact on the Town's transfer facilities. It was however recommended that proposed buildings be designed to allow for separation of solid waste and recycling and all facilities mandate recycling.

9.1.10 Energy Supply

The Study Area's electrical needs are currently provided by Public Service Electric and Gas, Long Island (PSE&G LI). Above ground electrical and telephone facilities were noted in Riverside during field investigations, although utilities at "newer" development sites are routinely installed underground. Property owners are responsible for purchasing electric service directly from the Authority.

A letter was sent to PSE&G requesting information about the availability of electric service in the Study Area and any issues or concerns it may have (**Appendix J**). No response had been received by the time the Generic DEIS went into final editing. With respect to electrical supply, PSEG routinely advises that service to the project site or study area will be provided in accordance with the filed tariff and schedules in effect at the time of request.

National Grid supplies natural gas service on Long Island. Individual property owners must purchase natural gas from National Grid contingent upon infrastructure availability and National Grid's tariff schedule. Natural gas lines are known to exist in the area. A letter was sent to Natural Grid requesting information regarding service in the Study Area and any issues and concern it may have but no response was received by the time this Generic DEIS went to final edits (**Appendix J**). The current level of energy use in the area is not known.

9.2 Potential Impacts

9.2.1 Property Taxes

Many of the Town's and County's community services and facilities are supported in large part by the revenues generated through property taxes. The Town of Southampton and Suffolk County, as well as other local taxing jurisdictions will greatly benefit from an increase in such

property tax revenues resulting from the development and operation of the Theoretical Development Scenario.

The proposed community will increase taxes generated by the component parcels, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. Development parcels within the BOA Study Area make up 38 percent of total assessed value and 43.4 percent of total taxable property value. The new assessed value of the development parcels within the BOA was estimated using the market approach. In aggregate, the Theoretical Development Scenario will generate $12.6 million in annual taxes. This represents a net increase of $10.3 million per year when compared to existing area conditions (see **Table 9-4**) and a more than 500 percent increase in tax revenues in the BOA Study Area.

Table 9-4
TAX GENERATION AND DISTRIBUTION, 2014 TAX YEAR
Existing Conditions and Theoretical Development Scenario

		Existing BOA		Development Parcels		BOA Post-Development	
Levy Name	Rate Value	Total Taxable Value	Total Taxes Raised	Existing Taxable Value	Post-Development Taxable Value	Taxable Value	Total Taxes Raised
SUFFOLK COUNTY - GENERAL	0.2086	$126,374,702	$26,362	$54,835,592	$636,117,077	$707,656,187	$147,617
NY STATE REAL PROP TAX LAW	0.1435	$126,374,702	$18,135	$54,835,592	$636,117,077	$707,656,187	$101,549
NY STATE MTA TAX	0.0063	$126,374,702	$796	$54,835,592	$636,117,077	$707,656,187	$4,458
OUT OF COUNTY TUITION	0.0053	$126,374,702	$670	$54,835,592	$636,117,077	$707,656,187	$3,751
GENERAL TOWN	0.3769	$126,374,702	$47,631	$54,835,592	$636,117,077	$707,656,187	$266,716
Highway	0.3739	$126,374,702	$47,252	$54,835,592	$636,117,077	$707,656,187	$264,593
Police	0.5665	$126,374,702	$71,591	$54,835,592	$636,117,077	$707,656,187	$400,887
Emergency Dispatching	0.0495	$126,374,702	$6,256	$54,835,592	$636,117,077	$707,656,187	$35,029
Part-Town Outside of Villages	0.0599	$126,374,702	$7,570	$54,835,592	$636,117,077	$707,656,187	$42,389
Riverhead School District	13.7966	$124,827,958	$1,722,201	$53,978,980	$636,117,077	$706,966,055	$9,753,728
Riverhead & Baiting Hollow Library District	0.4964	$135,386,718	$67,206	$55,004,100	$636,117,077	$716,499,695	$355,670
Riverhead Fire District	1.0637	$131,436,233	$139,809	$55,158,900	$636,117,077	$712,394,410	$757,774
Southampton Fire District	0.2729	$-	$-			$-	$-
Riverside Lighting District	0.1635	$131,434,733	$21,490	$55,158,900	$636,117,077	$712,392,910	$116,476
Flanders Water District	0.4893	$-	$-			$-	$-
Northampton Ambulance District	0.6971	$131,436,233	$91,624	$55,158,900	$636,117,077	$712,394,410	$496,610
Total			**$2,268,592**				**$12,599,629**

9.2.2 Public Schools

According to residential demographic multipliers published by the Center for Urban Policy Research at Rutgers University and supplemented by Urbanomics, the proposed 2,267 units will,

upon full buildout, generate some 3,899 residents, which include approximately 283 school-aged children. Given the relatively small apartment sizes (1,125 SF on average) in the proposed development, it is important to note that such housing statistics represent a conservative population projection.

The Theoretical Development Scenario will generate additional school-aged children to the Riverhead CSD, necessitating an increase in school district expenditures. According to budgetary information from the school district, the current annual cost to the taxpayers of each student is $18,384; the total costs to the district for the Theoretical Development Scenario upon full buildout are therefore $5.2 million. The Theoretical Development Scenario will cause a substantial increase in property taxes for the Riverhead CSD over the existing condition, particularly as several parcels will be returned to the tax rolls. Based on the current 2014-15 tax rates, the school tax revenue from the Theoretical Development Scenario would be approximately $6.14 million per year, creating a net-benefit to the district of $940,734 each year after full buildout. These additional revenues will assist in easing the increased burden of rising school district costs on other taxpayers throughout the district. It is noted that the District's response letter indicated concern with an influx of additional students to the district.

The projected 283 additional school-aged children generated by the Theoretical Development Scenario, will not enter the Riverside CSD system all at once, but will be phased in over the ten year construction period. Therefore, 28 new children will be introduced per year, representing an annual enrollment increase of only 0.6 percent. Enrollment would also be distributed across the various grade levels served by the District. The Town and the Master Development will work with the Riverhead CSD to evaluate the demographic needs and expected number of students based on current growth trends and the additional students anticipated from the Proposed Action. Once a greater understanding of future enrollment is completed, a determination of facility needs to accommodate this growth can be evaluated, including the cost of necessary facility improvements and potential funding mechanisms. A "Fair Share" mitigation program and fund will be established based on the Proposed Action's proportional share of additional school age children to assist in providing revenue for necessary evaluation and implementation of facility upgrades.

9.2.3 Police Protection

The Theoretical Development Scenario will be serviced by the SHPD. A letter was sent regarding the subject Action and the ability of the precinct to handle the Theoretical Development Scenario under the Proposed Action. A follow-up meeting was convened with the Chief of Police Robert Pearce and Captain Schurek on September 18, 2015. Additional development under the Theoretical Development Scenario would require increased service by the police.

One goal of the revitalization plan is to create a dynamic place for the workforce of the Town of Southampton to live and that workforce housing would be maintained in perpetuity. This also provides the extra benefit of having off duty police officers in the area. This intent was presented and it was asked if the employer sponsored housing concept would be appealing to the

Department, specifically, Chief Pearce was asked if the provision of workforce housing opportunities for younger officers would be appealing. Chief Pearce felt that this would be welcomed by the Department. The Department hires from the Town list - so initially officers are residents of the Town; however, many move out of the Town once they purchase a home due to a general lack of affordable housing in the Town. The Proposed Overlay Zones require that 50 percent of the residential units built are constructed as Community Benefit Units, administered in accordance with Chapter 216 of the Town Code. Therefore, in accordance with Chapter 216 of the Town Code, these housing units are first offered to emergency service and police personnel in the Town (See Section 412 of the Zoning Amendments (**Appendix A-1**)). This will result in a significant increase in the availability of affordable housing for police officers in the Town.

Increased development, mixed uses that operate at different hours and residences will provide "eyes on the street" as well as an additional level of security and proper exterior security lighting to alleviate illicit activities. Potential impacts from full buildout of the Theoretical Development Scenario could be further offset in the future by introducing the following as needed:

- Consideration of beat officers for patrol as the area develops into a more downtown setting;
- Additional budget to allow for the addition of Town-wide Community Response Unit officers.

It is expected that the Theoretical Development Scenario would result in an increase of approximately $252,252 in annual tax revenue for the SHPD upon full buildout and occupation of the development, which is expected to offset the costs of providing an increased level of services.

9.2.4 Fire Protection

Development of the Theoretical Development Scenario would incrementally increase the potential need for emergency services from the Riverhead Volunteer Fire Department. Representatives of the Town, RD, and NP&V met with the members of the RVFD to discuss the Proposed Action (zoning amendments) and the Theoretical Development Scenario. The Department indicated the proposed 4-4.5 story building height could be accommodated with their existing capabilities and equipment as long as building are sprinklered, meet NY Building Code and maintain a separate dedicated standpipe for fire flow. The Department indicated the importance maintaining fire access around the perimeter of the building, so that adequate provisions are provided for fire access.

The Proposed future building construction will include current building materials and safety installations per the NYS Building Code. All of the units and the building will be equipped with carbon monoxide/smoke/fire detectors and alarms, and the non-residential areas will be sprinklered as well. Future buildings will be planned with suitable access for emergency vehicles and will include installation of fire hydrants as directed through the site plan review process. Pertinent input from the Fire Department will be solicited throughout the site plan application process to ensure the buildings are designed to provide adequate provisions for emergency vehicle access and adequate hydrant and standpipe locations.

It is expected that the project will result in an increase of approximately $252,252 in annual tax revenue for the Fire Department upon full buildout and occupation of the development, which is expected to offset the costs to provide the increase in fire protection services.

9.2.5 Ambulance Service

Much of the land in the NFVA's service district is either preserved or publicly owned and do not generate tax revenues while many small local businesses have gone out of business and homes are vacant. This has resulted in a proportionately small number of local taxpayers (many of whom are living in poverty or are of limited means) to finance these essential services with help from the County for prison calls. According to the NFVA, the Riverside community currently pays more in taxes per $100 assessed value than any other district in the Town of Southampton. The high number of calls received from the Community College, County office complex, County prison, and area parklands, in conjunction with the relatively high incidence of drug overdoses and violent crimes, and closed businesses in the area has placed considerable strain on the NFVA and community in terms of maintaining a suitable level of funding. Moreover, since many of the people who receive ambulance services, including those who attend the community college, live or work at the prison, receive treatment at the methadone and VA clinics, or use the nearby State and County parks, are from outside the Riverside/Flanders/Northampton area, most of the impact from the delivery of services must be absorbed by residents.

The potential for a future hotel, assisted living facilities, additional senior/55 and older housing, and an overall increase in population in the area is expected to increase the number of NFVA calls considerably from its current 1,500 per year. With the relatively high turnover of EMTs and a general trend toward a lower number of young people volunteering in recent years, limited space for training and few if any facilities or amenities to attract more volunteers, there is a need for additional space and personnel. Based on the types and level of development anticipated, two additional EMTs and two critical care technicians would likely be necessary at build-out under the Proposed Action. The number of ambulances that would be needed under the Theoretical Development Scenario would likely not increase; however, these vehicles would have to be replaced more frequently as the number of calls and miles traveled will increase. The current two percent tax cap is also seen as problematic as it limits the generation of funds through taxation for the district.

The Northampton Ambulance District is expected to receive an increase of $310,406 per year in tax revenue from the proposed development upon full buildout and occupation, which is expected to offset the costs to provide the increase in EMS services related to the development.

Options for further alleviating impacts include:

- Pursue the establishment of third party billing program or "pay for service" reimbursement program which would permit the NFVA to bill private insurance companies for services rendered. This would help to mitigate future costs and offset any additional burden on the Town and its taxpayers. Some of the money that is saved by the Town could be allocated toward paying the copayments of residents, while persons who

live outside of the community would be responsible for their own copayments. A special contractor could assist in the third party billing and provide greater administrative efficiency and a greater likelihood of payment.

- Hire two additional paid EMTs and two critical care technicians or create a Town-wide ALS office under the Town's Public Safety Division so that personnel and resources can be pooled. The pooling of services, equipment, and costs would be a more efficient use of resources, while sharing the costs of service delivery throughout the Town. An estimated five paramedics and one supervisor would likely be needed in the future if this approach is chosen.
- Attempt to attract more ambulance personnel by giving preference to volunteers and any paid ambulance personnel who are residents in securing affordable or workforce housing that would be created under the Proposed Action.
- Seek to acquire the former and currently vacant Riverhead Head Start building located off of Goodridge Road near Phillips Elementary School as a primary or secondary ambulance building. This building could be used for training exercises, fundraising events, vehicle and equipment storage and provide a social and recreational amenity for volunteers.

9.2.6 Water Supply

Water Quality and Public Supply Availability

The various projects will utilize the existing SCWA water supply and network of water mains throughout the Study Area within the RSWD. This will require developers to install laterals from proposed buildings to the street for connection.

A letter was sent to the SCWA requesting its input in regard to the Proposed Action and the ability of district to support the Theoretical Development Scenario (**Appendix J**). The SCWA has provided correspondence dated September 10, 2015 indicating that:

- The SCWA does not have any wellfields within a 1,500 foot radius of the subject project area (i.e., they are outside of designated water supply sensitive areas);
- The project area is outside of any SCWA well capture zones;
- SCWA's Oak Avenue wellfield is the closest to the project at 1.6 miles south/east and has one active well;
- It is the responsibility of an operator to arrange to have services 'marked out' before commencing excavation; and
- Public and private hydrant data should be field or survey verified.

The total maximum water demand in the Study Area, including potable/domestic and irrigation water not counting reductions from contemporary water conservation measures anticipated for new development, is estimated to be approximately 732,048 gpd which is 416,332 gpd more than the current water consumption estimate of 315,716 gpd in the Study Area but is not anticipated to impact the ability of the SCWA to serve the subject site and existing customers due to the known abundance of high quality groundwater resources in the district. Future projects will be required

to receive approvals for water connections and the availability of service and any need for additional infrastructural improvements will be determined at that time.

Impacts to groundwater quality typically result from a variety of point and non-point sources, such as leaking above and below ground fuel storage tanks, dumping, industrial spills and discharges, fertilizer and pesticide applications, contaminated stormwater recharge, and cesspools and septic systems. **Section 4.1.3** of this Generic DEIS describes some of the findings of the most recent annual drinking water quality report for the RSWD. SCDHS considers the potential for contamination of neighboring wells when considering sewage disposal requirements and water supply needs.

The SCWA is chartered to provide water to its service district customers, based on approved tariffs. Individual property owners will continue to pay the required rates based on water consumption.

Water Conservation

Section 410 J of the proposed zoning standards and regulations (**Appendix A-1**) address the need for conserving groundwater resources both indoors and outdoors as indicated below. These water conservation techniques will help to lower water consumption and mitigate impacts on the water district by providing the following standards.

(1) Reduce Indoor Impacts to Water Resources
  (a) The following minimum requirements for building water efficiency shall be met:
    - Indoor water use in new buildings and buildings undergoing major renovations as part of the project must, on average, use 20 percent less water than baseline buildings. The baseline shall meet the requirements of the Energy Policy Act of 1992 ("EPA") and subsequent rulings by the Department of Energy, requirements of the Energy Policy Act of 2005, and the plumbing code requirements as stated in the 2006 editions of the Uniform Plumbing Code or International Plumbing Code as to fixture performance. Calculations are based on estimated occupant usage and shall include only the following fixtures and fixture fittings (as applicable to the project scope): water closets, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves.
    - The water efficiency threshold shall be calculated as a weighted average of water usage for the buildings constructed as part of the project based on their conditioned space square footage.

Table 9-5 provides the specific indoor residential and commercial water efficiency baseline standards for fixtures, fittings, and appliances listed in proposed Section 330-410 J. The proposed outdoor water conservation standards are provided after **Table 9-5**.

Table 9-5
TABLE OF BUILDING WATER EFFICIENCY BASELINES

National Efficiency Baselines for Commercial Water-Using Fixtures, Fittings and Appliances[1]	
Fixtures, Fittings & Appliances	***Current Baseline***
Commercial Toilets	1.6 gpf [2] except blow-out fixtures: 3.5-gpf
Commercial Urinals	1.0 gpf
Commercial Lavatory (Restroom) Faucets	2.2-gpm at 60 psi; private applications only (hotel-motel guest rooms)
	0.5 gpm at 60 psi[3] all others except private applications
	0.25 gallons per cycle for metering faucets
Commercial Pre-rinse Spray Valves (for food service applications)	Flow rate ≤ 1.6 gpm (no pressure specified; no performance requirement)
National Efficiency Baselines for Residential Water-Using Fixtures, Fittings and Appliances[1]	
Residential Toilets	1.6 gpf [4]
Residential Lavatory (Bathroom) Faucets	2.2 gpm at 60 psi
Residential Kitchen Faucet	
Residential Showerheads	2.5 gpm at 80 psi per shower stall[5]

Notes:

1. Adapted from information developed and summarized by the U.S. EPA Office of Water
2. EPAct 1992 standard for toilets applies to both commercial and residential models.
3. In addition to EPAct requirements, the American Society of Mechanical Engineers standard for public lavatory faucets is 0.5 gpm at 60 psi (ASME A112.18.1-2005). This maximum has been incorporated into the national Uniform Plumbing Code and the International Plumbing Code.
4. EPAct 1992 standard for toilets applies to both commercial and residential models.
5. Residential shower compartment (stall) in dwelling units: The total allowable flow rate from all flowing showerheads at any given time, including rain systems, waterfalls, bodysprays, bodyspas, and jets, shall be limited to the allowable showerhead flow rate as specified above (2.5-gpm) per shower compartment, where the floor area of the shower compartment is less than 2,500 sq.in. For each increment of 2,500 sq.in. of floor area thereafter or part thereof, an additional showerhead with total allowable flow rate from all flowing devices equal to or less than the allowable flow rate as specified above shall be allowed. Exception: Showers that emit recirculated non-potable water originating from within the shower compartment while operating are allowed to exceed the maximum as long as the total potable water flow does not exceed the flow rate as specified above.

(2) Reduce outdoor potable water consumption

(a) The following minimum requirements for a water efficient landscaping must be met:

- Reduce potable water consumption for outdoor landscape irrigation by 50 percent from a calculated midsummer baseline case. Reductions may be attributed to any combination of the following items, among others:
  - Plant species, density and microclimate factor
  - Irrigation efficiency
  - Use of captured rainwater
  - Use of recycled wastewater
  - Use of water treated and conveyed specifically for non-potable uses.
- Use of other non-potable water sources such as stormwater, air conditioning condensate, and foundation drain water.

Standards and requirements under the Central Pine Barrens Compatible Growth Area restricting clearing and the proposed Overlay District requirement for fertilizer/irrigated dependent landscaping to be limited to no more than 15 percent of the lot area will also be helpful to reduce outdoor irrigation water demands.

9.2.7 Sewage Treatment

In 2013, Suffolk County Department of Public Works commissioned a study to explore the feasibility of providing sanitary sewer service along the Flanders-Riverside Corridor including the subject Study Area south of SR 24 in order to advance prospects for business development and improvement of the local economy, expand housing opportunities and protect the environment. This Feasibility Study addressed sewage collection, treatment and effluent discharge requirements, associated capital and operational costs, as well as the economic and environmental benefits associated with sewering the Flanders Riverside Corridor (CDM Smith; H2M; and Bowne AE&T Group, 2013). The Study did not identify any existing STPs within a mile of is study area that had the additional capacity to serve the area and instead suggested that a new facility with advanced nitrogen removal capability be constructed.

The Theoretical Development Scenario under the Proposed Action will generate an estimated 538,065 gpd of sanitary wastewater. This flow will be piped to one or more existing or proposed STPs where it will receive tertiary level treatment before being recharged into the ground. **Section 14.3** provides an overview of several STP locations that are being considered and evaluated for future use. Nitrogen treatment at existing or proposed facilities must comply with all SPDES discharge permit, Central Pine Barrens, and Peconic Estuary TMDL standards unless variances are granted and any associated mitigations are implemented. If STPs are not constructed or not available for service or have the capacity to serve future development, than development density would have to be scaled back to ensure that projected wastewater density loads do not exceed SCDHS flow standards for on-site septic systems (300 gpd/acre south of SR 24 and 600 gpd/acre north of SR 24). The removal of existing development in the Study Area, including existing septic systems and cesspools, and connecting future development to an STP(s) with advanced treatment capabilities, will provide significant impact mitigation, and help to protect groundwater and surface waters from contamination.

9.2.8 Parks and Recreation

A portion of the Study Area (i.e., approximately 35 acres comprising the Southampton Enterprise Zone Industrial Subdivision site), is listed by the Town's 2005 Community Preservation Project Plan (CPPP) as a target open space acquisition site. Consideration of preserving this property is, nevertheless, contrary to a number of Town goals and planning initiatives that either support or promote the development of this site pursuant to its status as a Town/Central Pine Barrens transfer of development rights (TDR) receiving area[2] (CPBJPPC, 1996; Land Ethics, 1999; Ferrandino & Associates, et al., 2004; and Hutton Associates, 2005; and the current project). Moreover, preservation of the lots pursuant to the recommendations of the CPPP requires willing

[2] The 12.5 acre parcel to the west is also designated as a TDR receiving area.

sellers, whereas the intent is to develop the area to promote much needed economic development.

The proposed action should not have a significant impact on existing public open space and recreational facilities in the area since there is an abundance of such facilities in or near the ROD. There are several large parks and preserves in the area that contain hiking and/or biking trails. Bicycle lanes are also available in the ROW of SR 24. There is an existing long-established kayak rental business in the Study Area as well and Riverside has its own active recreational facility (Ludlam Avenue Park) which contains tennis and basketball courts, a baseball/softball field, and a playground. There is interest by existing leagues and residents of the East End in locating a hockey/skating rink in eastern Long Island due a lack of existing facilities. Investors investigating locations for a potential ice rink to serve the east end have specifically identified Riverside as a candidate location for this facility. Therefore, the Theoretical Development Scenario includes the possibility of a 100,000 SF community ice rink at the TDR/CPPP site (Block 40) for use by residents of the Hamlet and surrounding areas.

The Proposed Code Amendments include minimum requirements for civic and private spaces upon development or redevelopment such as plazas, piazzas, greens, squares, pedestrian ways, courts, courtyards, green roofs, and/or pocket parks. The Code amendments also include provisions for bicycle use facilities and amenities and there is the potential for enhanced public access to the Peconic River, including construction of a boardwalk or viewing piers, woodland trails, and future public art and events, such as Waterfire events (see RRAP, **Appendix A-1**). Additional development in the area would also allow for additional tax ratable development that would help in financing, among other things, the Town Parks and Recreation Department including park maintenance and improvement and administration of public recreation programs.

9.2.9 Solid Waste Disposal

As discussed in **Section 9.1.9**, businesses, industries and multi-family residential complexes are prohibited from utilizing Town transfer stations and therefore must contract with private carters who transport these materials to licensed disposal locations outside of the Town. Since the proposed zoning would allow primarily business and multifamily residences, it would be up to residential managers and individual business owners and operators to contract with a private hauler. Private haulers would cart these wastes out of Town for disposal at licensed solid waste disposal and recycling facilities. Based on the existing uses and yields of the project sites, it is anticipated that a total of 7.06 tons of solid waste are generated daily (lbs/day), all (assuming full occupancy of the existing buildings), as follows:

Table 9-6
SOLID WASTE PROJECTIONS
THEORETICAL DEVELOPMENT SCENARIO

Land Use	Additional SF, Rooms, and Dwelling Units	Solid Waste Multiplier	Estimated Solid Waste (TDS) (lbs/day)
Studio Apartment	226	4 lbs/unit/day	904
1-BR Apartment	1,134	4 lbs/unit/day	4,536
2-BR Apartment	907	4 lbs/unit/day	3,628
Adult Care/Nursing Home	114	3 lbs/unit/day	342
Retail	106,184 SF	13 lbs/1,000 SF/day	1,389
Restaurant	13,352	1 lb/1 capita/30SF/day	445
Wet Retail	13,352	13 lbs/1,000 SF/day	174
Professional Office	37,000 SF	1 lb/100 SF/day	370
Medical Office	25,000 SF	1 lb/100 SF/day	250
Hotel/no kitchen/400SF/Room)	97 Rooms	3 lbs/room/day	291
Artisan Lofts/Production	30,900 SF	2 lbs/100 SF/day	618
Cultural	11,032 SF	4 lbs/1 occupant/50 SF	883
Indoor Ice Skating/Hockey Rink	200 occupants[1]	1.5 lbs/occupant/day [1]	300
Total			**14,130**

Source: Salvato, 2009
1. Estimate

Considering the types of uses permitted in the proposed ROD, significant amounts of potentially toxic or hazardous materials are not expected. Solid waste will be collected by private carters operating under contract with the site owners/operators and would be disposed at a licensed solid waste management facility outside of the Town and therefore placing no burden on the Town's waste transfer facilities. Moreover, a significant volume of Construction and Demolition debris can be expected as part of the redevelopment process. Phase I Environmental Site Assessments will performed prior to demolition to identify and potential hazardous materials and/or conditions and further investigations and cleanups will be performed in accordance with applicable thresholds and standards and all materials whether hazardous, recyclable, or solid waste, will be disposed at licensed disposal or recycling facilities.

The Master Developer and the Town Planning met with the Town of Southampton Department of Municipal Works on September 18, 2015 to request any input, information or concerns it may have regarding solid waste management associated with the Proposed Action. Based on the land use type and scale of the project, the Town of Southampton Department of Municipal Works did not anticipated that the incremental increase in solid waste generated would represent a significant adverse impact on the Town's waste management facilities, or the region's ability to handle and dispose of the expected increase in solid waste. At the recommendation of the Town of Southampton Department of Municipal Works, recycling will be mandated for all developments opting into the Overlay Districts.

9.2.10 Energy Supply

The project area is currently served by PSEG (electricity) and National Grid (natural gas) utilities. Letters were sent to PSEG and National Grid to confirm that increased service could be provided to the area; however, responses from the two utility providers were not received by the time the Generic DEIS was completed. Generally, PSEG provides service in accordance with its filed tariff and schedules in effect at the time service is required. National Grid does not typically respond to preliminary requests for service availability but is expected to provide service when infrastructure is available in the area, as is the case in Riverside. It is anticipated that both of these energy supply companies maintain adequate resources to support the Theoretical Development Scenario as it comes to fruition over the estimated development horizon. Connections will be made to each utility through the creation of an internal distribution network on the site and preferably all new utilities will be installed underground if possible.

9.3 Mitigation Measures

- Future development and redevelopment projects envisioned under the Proposed Action and Theoretical Development Scenario will require a source of potable drinking water and must connect to a public water supply. Written confirmation must be obtained from the SCWA, its successors or other public water provider demonstrating that an adequate supply of water is available to satisfy both the "domestic" (drinking water) and "non-domestic"(non-drinking water) needs of the project prior to issuance of a building permit.
- An additional 283 students are anticipated to be generated by the Proposed Action (phased over a ten year period as projects are designed and constructed). The Town and the Master Development will work with the Riverhead CSD to evaluate the demographic needs and expected number of students based on current growth trends and the additional students anticipated from the Proposed Action. Once a greater understanding of future enrollment is completed, a determination of facility needs to accommodate this growth can be evaluated, including the cost of necessary facility improvements and potential funding mechanisms. A "Fair Share" mitigation program and fund will be established based on the Proposed Action's proportional share of additional school age children to assist in providing revenue for necessary evaluation and implementation of facility upgrades.
- Buildings must be constructed in conformance with New York State Fire and Building Codes and the recommendations of emergency service providers in terms of access and the provision of fire hydrants. In addition, use of sprinklers and fire/smoke alarms will assist in minimizing the potential need for fire protective services.
- The Fire Department/Fire Marshal will have the opportunity to review future proposed site plans to ensure that their needs, including provisions for emergency access, hydrant locations, sprinkler systems, fire alarms, and smoke and carbon monoxide detection, are properly addressed.
- Water-conserving plumbing fixtures and mechanical systems shall be utilized in construction, which will further minimize the volume of water required from the public water supply.

- The majority of solid wastes generated are not expected to contain toxic or hazardous substances. For the medical-related wastes, separate storage, handling and disposal requirements and procedures will be undertaken as required by NYS. Recycling will be mandatory for all developments completed under the ROD.
- The ROD requires projects implement Sustainable Development Standards that include energy-conserving measures, reduction in water use, heat island reduction, etc., thereby reducing anticipated increase in energy consumption.
- Currently there is not enough demand for beat officers; however if the area is developed into a more urbanized area, there may be a need for an expanded police presence in more of a "Main Street" setting. Budget increases to allow for the addition of Town-wide Community Response Unit officers is desired to address incremental increases in police demand.
- Pursue establishment of third party billing (i.e., pay for service reimbursement program) which would permit the NFVA to bill private insurance companies for services rendered. This would help to mitigate future costs and offset any additional burden on the Town and its taxpayers. Some of the money that is saved by the Town could be allocated toward paying the copayments of residents, while persons who live outside of the community would be responsible for their own copayments. A special contractor could assist in the third party billing and provide greater administrative efficiency and a greater likelihood of payment.
- If Third Party Billing is not pursued or achieved consider hiring two additional paid EMTs and two critical care technicians or create a Town-wide ALS office under the Town's Public Safety Division so that personnel and resources can be pooled. The pooling of services, equipment, and costs would be a more efficient use of resources, while sharing the costs of service delivery throughout the Town. An estimated five Paramedics and one Supervisor would likely be needed in the future if this approach is chosen.
- Attract more ambulance personnel by giving preference to volunteers and any paid ambulance personnel who are residents in securing affordable or workforce housing to become available under the Proposed Action.

10.0 TRAFFIC AND TRANSPORTATION

10.1 Existing Conditions

10.1.1 Traffic and Transportation

A Traffic Impact Study (TIS) was prepared by Nelson & Pope to assess existing traffic conditions in and around the project site and to forecast future traffic conditions at key intersections under "build" and "no-build" conditions. Based on these analyses, potential traffic impacts are identified and the actions necessary to mitigate them are proposed.

The TIS specifically includes a detailed examination of existing roadway characteristics, circulation patterns and traffic conditions; availability of transit and pedestrian facilities; and accident histories at key intersections. Projections of future traffic volumes and levels of service (LOS) impacts from the proposed project during peak hours and an assessment of how this additional volume will affect the surrounding roadway network is provided. A summary of the TIS is provided below. The full TIS, including its methodologies, tables, figures, supporting data, and conclusions, is provided in its entirety in **Appendix K**.

Roadway Conditions

The following is a brief description of the road network in the area**.** **Figure 10-1** shows the local street network and study intersections for the investigation.

Flanders Road **(NYS 24)** is an east/west NYSDOT roadway within the study area and extends from the five-leg roundabout in Southampton to Montauk Highway in Hampton Bays. Within the Study area, Flanders Road provides one lane per travel direction with a center two-way left turn lane. The posted speed limit on Flanders Road is 40 MPH within the Riverside area. The section of Flanders Road in Riverside has an average annual daily traffic (AADT) volume of approximately 17,444 vehicles per day. Sidewalks are provided on both sides of Flanders Road within the study area.

Nugent Drive **(CR 94)** is an east/west Suffolk County roadway within the study area and extends from the five-leg roundabout in Southampton to the Long Island Expressway. CR 94 provides two lanes per travel direction with turn lanes at major intersections. The posted speed limit on CR 94 is 40 MPH.

Lake Avenue **(CR 63)** is a north/south Suffolk County roadway within the study area and extends from the five-leg roundabout to CR 51. CR 63 provides one lanes per travel direction. The posted speed limit on CR 63 is 55 MPH. CR 63 has an AADT volume of approximately 6,692 vehicles per day.

CR 104 is a north/south Suffolk County roadway within the study area and extends from the five-leg roundabout to CR 80. CR 104 within the study area provides one lanes per travel direction. The posted speed limit on CR 104 is 40 MPH. CR 104 has an AADT volume of approximately 8,443 vehicles per day.

Old Quogue Road is a north/south local roadway within the study area and extends from the Flanders Road (NYS Route 24) to CR 104. Old Quogue Road provides one lanes per travel direction. The

posted speed limit on Old Quogue Road is 30 MPH. Old Quogue Road has an AADT volume of approximately 813 vehicles per day.

Ludlam Avenue is an east/west local roadway within the study area and extends from the Flanders Road (NYS Route 24) to CR 104. Ludlam Avenue provides one lanes per travel direction. The posted speed limit on Ludlam Avenue is 30 MPH. Ludlam Avenue has an AADT volume of approximately 802 vehicles per day.

Table 10-1 summarizes the lane configurations and traffic controls at the study intersections.

Transit and Pedestrian Facilities

Transit services within the study area include commuter rail and public bus. Also in the study area are pedestrian facilities i.e. sidewalks, crosswalks, pedestrian signals and push buttons at traffic lights.

Commuter Rail - The Riverhead Long Island Railroad (LIRR) station is located in downtown Riverhead. The station is situated on the north side of Railroad Street between Osborn Avenue and Griffing Avenue and is approximately 1 mile from Riverside. There are 5 trains per day, per direction at this station. This station is a stop for Suffolk County Transit (SCT) Bus routes S58, S62, S90, S92 and 8A and serves as a transfer location. Train arrivals and departures are not coordinated with the SCT bus schedule and vice versa. Several bicycle racks are also provided at this location.

The ridership on this eastern section of the LIRR is low. The infrequent train service leaves commuters with few options when travelling to/from work. The current weekday schedule provides 5 trains daily for both eastbound and westbound travel. Weekend and holiday service is even more limited with just 2 trains per direction, per day. According to the most recent ridership information available from the LIRR, at the Riverhead station, during the weekday AM peak, 16 patrons boarded the westbound train and no one boarded the eastbound train. During the weekday midday peak, 16 patrons boarded the westbound train and 14 patrons exited the eastbound train. During the weekday PM peak no one boarded the westbound train and 6 patrons exited the eastbound train. The overall ridership for an entire day is 52 patrons entering/exiting the train at the Riverhead station. For comparison purposes, the Ronkonkoma train station services 17,278 patrons, in one day. The infrequent service, arrival/departure times and distance from other stations does not appeal to long distance commuters.

No credit was taken for transit in the traffic study due to current low ridership, however public transit ridership is expected to increase with the development of this project and hence the demand for additional train service. At that time the MTA may analyze the need for additional train service.

Bus Routes - Suffolk County Transit (SCT) bus line S92 has stops on Flanders Road (NYS Route 24) in Riverside. This route runs between the Orient Point Ferry through Riverhead and then to the East Hampton Railroad. This route makes several stops along the north and south fork of Long Island as well as one stop in Riverside. The bus operates approximately every half hour or hour depending on the time of day and runs from 5:15 am to 8:45 pm. Full service is available on Saturdays and Sunday service is provided from May to October.

Pedestrian Facilities - Sidewalks are provided on Flanders Road. The northbound approach at the signalized intersection of CR 105 and Flanders Road (NYS Route 24) is equipped with pedestrian push buttons and/or pedestrian signals and crosswalks to provide adequate crossing time and guidance to pedestrians.

Table 10-1
INTERSECTION GEOMETRY

Intersection	Approach	Lane Designation*	Traffic Control
Peconic Avenue at West Main Street	EB WB NB	T-R L-T L-R	Traffic Signal
Roanoke Avenue at West Main Street	EB WB SB	L-T T-TR R	Traffic Signal
CR 105 at Flanders Road (NYS Route 24)	EB WB NB SB	L-T-R L-T-R L-2T-R 2L-2T-R	Traffic Signal
Flanders Road (NYS Route 24) at Ludlam Avenue	EB WB NB	TR L-T LR	Stop Control – NB Approach
Flanders Road (NYS Route 24) at Enterprise Zone	EB WB NB	T-R L-T L-R	Stop Control – NB Approach
Flanders Road (NYS Route 24) at Old Quogue Road	EB WB NB	TR L-T LR	Stop Control – NB Approach
Flanders Road (NYS Route 24) at Vail Avenue	EB WB NB	TR L-T LR	Stop Control – NB Approach
CR 104 at Pine Street	WB NB SB	LR TR LT	Stop Control – WB Approach
CR 104 at Ludlam Avenue and Old Quogue Road	WB SEB NWB SB	L-R LLT TRR LLR	Stop Control - SB & WB Approaches
Vail Avenue at Pine Street	EB WB NB SB	LTR LTR LTR LT-R	Stop Control - EB & WB Approaches
Old Quogue Road at Pine Street	EB NB SB	LR LT TR	Stop Control – WB Approach
CR94, CR63, CR104, NYS Route 25 and Peconic Avenue Roundabout	EB WB NB SB NWB	LTR LTR LTR LTR LTR	Roundabout

Accident History

Accident data for the intersections in the study area was obtained from the NYSDOT. The most recent data available was from January 1, 2012 to December 31, 2014 (3 year period). The data was reviewed and is summarized in **Tables 10-2a and 10-2b**.

Table 10-2a indicates that a total of 184 accidents occurred around the study area during the analysis period. There were three (3) fatal accidents and the majority of accidents resulted in property damage only (110 accidents; 60%). One of the fatal accidents involved the driver colliding with a sign post and the remaining two involved pedestrians. The location with the greatest number of accidents is the roundabout of CR 94, Cr 63, CR 104, NYS 24 and Peconic Avenue with a total of 68 accidents (37% of the total accidents)..

A review of **Table 10-2b** indicates that rear-end accidents were the most prevalent (33%). The second most frequent type of accident was right turn accidents (16%) followed by Right Angle accidents at 15%..

Table 10-2a
ACCIDENT SUMMARY
by Accident Severity

Location	Accident Severity			
	Fatality	Injury	Property Damage	TOTAL
NYS 25 (Main St) at Roanoke Ave	-	12	15	27
NYS 25 (Main St) at Peconic Ave	-	3	9	12
Roundabout (CR94, CR 63, CR 104, NY 24, & Peconic Ave)	2	20	46	68
NYS 24 from the Roundabout to Old Quogue Ave (including segments)	1	4	10	15
NYS 24 at Enterprise Zone Dr/Rd H	-	2	1	3
NYS 24 at Ludlam Ave	-	3	5	8
NYS 24 at CR 105	-	24	22	46
CR 104 at Pine St	-	1	1	2
CR 104 at Old Quogue Rd & Ludlam Ave	-	2	1	3
Pine St at Vail Ave	-	-	-	-
Pine St at Old Quogue Rd	-	-	-	-
Total	3 *1%*	71 *39%*	110 *60%*	184 *100%*

Table 10-2b
ACCIDENT SUMMARY
by Accident Type

	Accident Type										
Location	Right Angle	Rear End	Head On	Left Turn	Right Turn	Fixed Object	Ped/ Bicycle	Side-Swipe	Over-Taking	Other/ Unknown	Total
NYS 25 (Main St) at Roanoke Ave	10	3	-	8	3	-	-	-	-	3	27
NYS 25 (Main St) at Peconic Ave	3	5	-	1	1	-	1	-	1	-	12
Roundabout (CR94, CR 63, CR 104, NY 24, & Peconic Ave)	7	20	-	-	24	4	1	-	6	6	68
NYS 24 from the Roundabout to Old Quogue Ave (including segments)	1	10	1	-	-	-	1	-	-	2	15
NYS 24 at Enterprise Zone Dr/Rd H	-	3	-	-	-	-	-	-	-	-	3
NYS 24 at Ludlam Ave	1	1	1	-	1	3	-	-	-	1	8
NYS 24 at CR 105	5	29	-	3	1	1	-	-	3	4	46
CR 104 at Pine St	-	-	-	-	-	-	-	-	1	1	2
CR 104 at Old Quogue Rd & Ludlam Ave	-	-	-	1	-	1	-	-	-	1	3
Pine St at Vail Ave	-	-	-	-	-	-	-	-	-	-	-
Pine St at Old Quogue Rd	-	-	-	-	-	-	-	-	-	-	-
Total	27 *15%*	71 *39%*	2 *1%*	13 *7%*	30 *16%*	9 *5%*	3 *1%*	0 *0%*	11 *6%*	18 *10%*	184 *100%*

Existing Condition Analysis

The 2015 existing peak hour traffic volumes depicted in Figures 3, 4, and 5 [in **Appendix K**] were used to determine the existing capacity and LOS of the study intersections. Tables 5 and 6 [in **Appendix K**] contain the LOS Summary for the Existing Condition calculated through the Synchro software described previously. The detailed analysis worksheets are in Appendix E of the Traffic Impact Study [located in **Appendix K]**.

Main Street at Peconic Avenue/Roanoke Avenue - The intersections of West Main Street at Peconic Avenue and East Main Street at Roanoke Avenue are approximately 55 feet apart as measured between stop lines. The distance between the two intersections provides one westbound through lane, one westbound left turn lane and a 22-foot wide eastbound lane that currently operates as a separate eastbound left turn lane and an eastbound through lane. These two left turn lanes provide storage for two cars each. These two intersections are controlled by two traffic signals operating under the same controller.

Currently, the eastbound West Main Street through movement at Peconic Avenue operate at LOS C, D and D during the weekday AM, PM and Saturday midday peak hours respectively and the

northbound Peconic Avenue left turn movement operate at LOS F during the weekday AM, PM and Saturday midday peak hours. The westbound East Main Street left turn movement at Peconic Avenue operates at LOS B, F and C during the weekday AM, PM and Saturday midday peak hours respectively. The westbound West Main Street approach at Roanoke Avenue operates at LOS C, D and C during the weekday AM, PM and Saturday midday peak hours respectively, the rest of the traffic movements operate at LOS B or better during the weekday AM, PM and Saturday midday peak hours. Overall, the intersection of West Main Street at Peconic Avenue operates at LOS C, D and C during the weekday AM, PM and Saturday midday peak hours and the intersection of East Main Street at Roanoke Avenue operates at overall LOS B, C and A during the weekday PM and Saturday midday peak hours.

Flanders Road (NYS Route 24) at Cross River Drive (CR 105) - The intersection of Flanders Road (NYS Route 24) and CR 105 is a four leg intersection controlled by a traffic signal. The eastbound and westbound Flanders Road (NYS Route 24) approaches provide one left turn lane, one through lane and one right turn lane. The westbound right turn lane is channelized and under yield control. The northbound Cross River Drive (CR 105) approach provides one left turn lane, two through lanes and one right turn lane. The southbound Cross River Drive (CR 105) approach provides two exclusive left turn lanes, two through lanes and one right turn lane.
Currently the eastbound left turn movement operates at LOS E during the weekday AM peak hour and at LOS F during the weekday PM and Saturday midday peak hours and eastbound through movement operates at LOS E during the weekday AM peak hour and at LOS D during the weekday PM and Saturday midday peak hours. The eastbound right turn movement operates at LOS A.
The westbound left turn movement operates at LOS E during the weekday AM peak hour and at LOS D during the weekday PM and Saturday midday peak hours. The westbound through movement operates at LOS F during the analyzed peak hours and the westbound right turn movement operates at LOS C or better.

The northbound left turn movement operates at LOS F. The northbound through movement operates at LOS D during the weekday AM and Saturday midday peak hours and at LOS E during the weekday PM peak hour and the northbound right turn movement operates at LOS A during the analyzed peak hours.

The southbound approach operates at LOS E during the analyzed peak hours with the northbound left turn movement operating at LOS F. The rest of the southbound traffic movements operate at LOS C or better.

Flanders Road (NYS Route 24) at Ludlam Avenue - Ludlam Avenue intersects Flanders Road (NYS Route 24) to form the Stop controlled leg of a T-intersection. Each approach to this intersection provides one lane for all turning movements with a two-way left turn lane on Flanders Road.

Currently, the westbound Flanders Road approach operates at LOS A and the northbound Ludlam Avenue approach operates at LOS C during the analyzed peak hours.

Flanders Road (NYS Route 24) at Enterprise Zone Drive - Enterprise Zone Drive intersects Flanders Road (NYS Route 24) to form the Stop controlled leg of a T-intersection. The northbound Enterprise Zone Drive approach provides one lane for left turn movements and one lane for right turn movements. Flanders Road provides one lane per travel direction with a two-way left turn lane.
Currently, the westbound Flanders Road approach operates at LOS A and the northbound Enterprise Zone Drive northbound left turn and right movement operate at LOS B during the weekday AM and PM peak hours and at LOS C or better during the Saturday midday peak hours.

Flanders Road (NYS Route 24) at Old Quogue Road - Old Quogue Road intersects Flanders Road (NYS Route 24) to form the Stop controlled leg of a T-intersection. The northbound Old Quogue Road approach provides one lane for all travel movements. The eastbound Flanders Road approach provides one through lane and a channelized right turn lane and the westbound Flanders Road approach provides one through lane and one left turn lane.

Currently, the westbound Flanders Road approach operates at LOS A and the northbound Old Quogue Road approach operates at LOS B during the weekday AM and PM peak hours and at LOS C during the Saturday midday peak hour.

Flanders Road (NYS Route 24) at Vail Avenue - Vail Avenue intersects Flanders Road (NYS Route 24) to form the Stop controlled leg of a T-intersection. The northbound Vail Avenue approach provides one lane for all travel movements. The eastbound Flanders Road approach provides one lane for through/right turn movements and the westbound Flanders Road approach provides one through lane and one left turn lane.

Currently, the westbound Flanders Road approach operates at LOS A and the northbound Vail Avenue approach operates at LOS C during the analyzed peak hours.

CR 104 at Pine Street - Pine Street intersects CR 104 to form the Stop controlled leg of a T-intersection. Each approach to this intersection provides one lane for all turning movements.
Currently, the southbound CR 104 approach operates at LOS A and the westbound Pine Street approach operate at LOS B during the analyzed peak hours.

CR 104 at Ludlam Avenue/Old Quogue Road - The intersection of CR 104 at Ludlam Avenue is a non-standard four leg intersection. CR 104 runs northwest and southeast and has no traffic control. Ludlam Avenue runs east/west and intersects CR 104 at a right angle with a westbound stop control. Old Quogue Road runs southeast and intersects CR 104 at an acute angle with a stop control at the intersection for through and left turn movements and a yield control for right turn movements. The traffic analyses for this non-standard four leg intersection were conducted using the synchro simulation rather than the synchro stop-control analyses.

Currently, the southeastbound CR 104 approach, the southbound Old Quogue Road approach and the westbound Ludlam Avenue approach operates at LOS A during the analyzed peak hours.

Vail Avenue at Pine Street - Pine Street intersects Vail Avenue to form a four leg intersection with the eastbound and westbound Pine Street approaches under stop control. Each approach to this intersection provides one lane for all turning movements.

Currently, all the approaches to the intersection operate at LOS A during all the analyzed peak hours.

Old Quogue Road at Pine Street - Pine Street intersects Old Quogue Road to form the Stop controlled leg of a T-intersection. Each approach to this intersection provides one lane for all turning movements.

Currently, all the approaches to the intersection operate at LOS A during all the analyzed peak hours.

Roundabout – Peconic Avenue/CR 94/CR 63/CR104/NYS 24) - Peconic Ave, CR 94, CR 63, CR 104 and NYS 24 intersect to form a five leg one lane roundabout. Nelson and Pope conducted an extensive study of this roundabout for Suffolk County Department of Public Works. The roundabout was analyzed using the Rodel Software. Under the Existing Conditions, all the approaches to the roundabout operate at LOS B or better during the AM peak hour, at LOS D or better during the PM peak hour and at LOS C or better during the Saturday midday peak hour. Nelson and Pope developed several improvement measures for this roundabout and provided Suffolk County with the most viable and preferred improvement measures (The construction of a two lane five-leg roundabout). The analyses of the preferred mitigation measures are incorporated in the No Build and Build analyses for the proposed Riverside Plan.

Future No-Build Conditions

The No Build Condition represents traffic conditions expected at the study intersections in the future year 2025 without the Plan. The No Build Condition traffic volumes are estimated based on the following factors:

- Increases in traffic due to general population growth and developments outside of the immediate project area. This traffic increase is referred to as ambient growth.
- Other planned projects located near the project area that may affect traffic conditions and patterns around the study area.

Traffic Growth **-** Based on the New York State Department of Transportation (NYSDOT) Long Island Transportation Plan 2000 Study (LITP2000), the Town of Southampton was envisioned to experience an annual traffic growth of 1.9%. Based on this NYSDOT annual growth factor of 1.9%, the traffic volumes in the study area will increase by 19% over a 10 year period (2025) even without the development of The Plan. However, based on our experience from repeatedly conducting traffic counts at several intersections and roadways in Suffolk County over several years, the growth factors at most of these intersections are much less than the growth factors developed by NYSDOT in their LITP2000 study. As part of the Peconic Ave, CR 94, CR 63, CR 104 and NYS 24 Roundabout Improvement Study conducted for Suffolk County, Nelson and Pope reviewed historical traffic data in the study area roadways and found an average annual increase in traffic of 0.43%. However, a conservative 1% annual growth factor was utilized for the roundabout design and hence the same was utilized for the Riverside Study. The existing traffic volumes were increased by this factor for a period of ten (10) years to project volumes to the year 2025.

Other Planned Projects **-** Other Planned Projects is a term that refers to developments located near the project area that are currently under construction or in the planning stages. Traffic generated by these projects may significantly influence the operations of the study intersections and would not be represented in the collected field data. The Towns of Southampton was contacted to obtain information on any planned projects in the area. Information from the Town of Southampton indicate no other planned projects in the vicinity of the study area.

Nelson & Pope conducted a Cumulative Traffic Impact Study for The Town of Riverhead as part of their on-going Growth Plan for the Town of Riverhead Peconic River/NYS Route 25 Corridor – BOA Step II Nomination. The Riverhead Traffic Study attempted to determine the best plan forward for the redevelopment and revitalization of downtown Riverhead. Traffic impacts associated with their preferred development scenario were identified and measures to mitigate these impacts were developed and analyzed. One of the major intersections requiring mitigation was the intersection of Main Street (NYS Route 25) at Peconic Avenue and Roanoke Avenue. Two mitigation measures

were proposed at this intersection, one required making Peconic Avenue a one-way roadway northbound with provision for southbound emergency vehicles. This mitigation measure would require traffic to be rerouted to other intersections, including West Main Street at Court Street, CR 94 at Nugent Street, and CR 94 and CR 51; thereby necessitating further geometric improvements at West Main Street at Court Street and further study of CR 94 at Nugent Street and CR 94 and CR 51 to evaluate the potential impacts of rerouted traffic. The other mitigation at this location would be to realign the Peconic Avenue and Roanoke Avenue legs to form a four leg intersection which will require removal of the building located on the northeast corner of the intersection.

Since the Riverhead BOA is on-going and date of implementation and development is not certain, traffic from the Riverhead BOA was not included in the Riverside Study as a planned development. However, the Town of Riverhead was contacted to obtain information on any planned projects in the area. As advised by the Town of Riverhead, the following proposed planned projects were included:

- A residential development to be located on the south side of West Main Street just west of Peconic Avenue and consists of 48 apartment units.
- A Mixed-use development to be located on the south side of East Main Street just east of Roanoke Avenue and consists of a mix of retail and apartment units.

The trip generation estimates for these two developments were prepared utilizing data contained in the Institute of Transportation Engineers (ITE) publication, *Trip Generation, Ninth Edition.* The No Build condition volumes for the weekday AM, weekday PM and Saturday midday peak hours are illustrated in Figures 6, 7 and 8 [in **Appendix K**]. The traffic anticipated to be generated by the planned projects is contained in figures located in the Appendix [in **Appendix K**].

Additionally, Nelson and Pope conducted an extensive study of the Peconic Ave, CR 94, CR 63, CR 104 and NYS 24 roundabout for Suffolk County Department of Public Works. The analysis for this roundabout was included in this Riverside revitalization Study. Nelson and Pope developed several improvement measures for this roundabout and provided Suffolk County with the most viable and preferred improvement measures (two lane, five leg roundabout). The analyses of the now proposed two lane, five leg roundabout were incorporated in No Build Analyses, as well as the Build Condition for this project, as this roundabout improvement is scheduled to be implemented by Suffolk County in 2016.

10.2 Potential Impacts

10.2.1 Traffic and Transportation

Future Build Condition

Trip Generation **-** In order to identify the impacts The Plan will have on the Study Area roadways and Study Intersections, it is necessary to estimate the magnitude of traffic volume generated during the peak hours and to estimate the directional distribution of the generated traffic when traveling to and from the Study Area.

The trip generation estimates for all the proposed uses under The Plan were prepared utilizing data from the ITE publication, *Trip Generation, Ninth Edition*. The ITE trip generation publication sets

forth trip generation data obtained by traffic counts conducted at sites throughout the country. The ITE Trip Generation Handbook is a valuable reference for traffic studies, as it is by far the most comprehensive source of empirical data on traffic impacts for different land uses. It should be noted that the basic premise behind the data presented in the ITE Trip Generation Handbook is that data is collected at single use/freestanding sites and does not take into account interaction between different uses on the same site. Recommended procedures also provide guidance for estimating internal capture at multi-use developments, as described in Chapter 7 of the *ITE Trip Generation Handbook*. Another phenomenon noted in the ITE Trip Generation Handbook is that traffic associated with some uses, especially retail uses is not 100% newly generated, a significant portion of these trips will be "pass-by" traffic, described as a trip that someone makes en route to their destination. An example of a pass-by trip is when someone stops for gas on the way from work and the gas station is on the same route they use to go home. The proposed Plan will comprise of mixed uses. Therefore, to estimate the trips generated by the proposed Plan, the following steps were undertaken:

- Obtain the trip generation estimates from the ITE Trip Generation Handbook.
- Utilize the internal trip capture methodology contained in Chapter 7 of the ITE Trip Generation Handbook.
- Pass-by credit was applied to this project, since it consists of a mix of retail, residential, restaurant, office and other uses.

Trip Generation with No Adjustment - The trip generation estimates for all the proposed uses under The Plan were prepared utilizing data from the ITE publication, *Trip Generation, Ninth Edition*.

- LUC 820 – Retail
- LUC 932 – High-Turnover Sit-Down Restaurant
- LUC 220 –Apartments
- LUC 580 –Museum
- LUC 720 –Medical/Dental Office
- LUC 710 –General Office
- LUC 620 – Nursing Home
- LUC 110 – General Light Industrial
- LUC 465 – Ice Skating Rink
- LUC 310 – Hotel

Table 10-3a is a summary of the estimated trip generation for the components of Theoretical Development Scenario, without any trip reduction.

Table 10-3a
TRIP GENERATION, Proposed Plan
No Trip Reduction

Use	Distribution	AM Peak Hour	PM Peak Hour	Saturday Peak Hour
Proposed Project	**Enter**	**642**	**1568**	**1472**
	Exit	**1120**	**1322**	**1417**
	Total	**1762**	**2890**	**2889**

Source: Trip Generation, 9th Edition, published by ITE

As can be seen from **Table 10-3a** above, Theoretical Development Scenario will generate 1,762 trips (642 entering and 1,120 exiting) during the weekday AM peak hour, 2,890 trips (1,568 entering and 1,322 exiting) during the weekday PM peak hour and 2,889 trips (1,472 entering and 1,417 exiting) during the Saturday midday peak hour, assuming no trip reduction is applied.

Adjustment for Internal Capture Trips

It should be noted that the basic premise behind the data presented in the ITE Trip Generation Handbook is that data is collected at single use/freestanding sites and does not take into account interaction between different uses on the same site. However, in a multi-use development like the proposed project, a portion of the traffic utilizing the retail and restaurant use will originate from the residential and office components of the development and will not utilize surrounding roadways. Therefore, the combined trip generation data for the retail, restaurant, office and residential uses obtained from ITE presented above will be higher than the anticipated site generated traffic utilizing the study area roadways. Therefore, internal credits between the retail, office, restaurant and residential uses were calculated in accordance with procedures for estimating internal capture at multi-use developments, described in Chapter 7 of the *ITE Trip Generation Handbook.* The calculations of the internal capture rates for this project are contained in the Appendix of the report.

Pass by Credit

It should also be noted that, according to studies conducted by the ITE, traffic associated with retail and restaurant uses are not 100% newly generated; a significant portion of these trips will be "pass-by" traffic. Pass-by credit was applied to retail portion of the proposed project.

Modal Split

As previously mentioned, the ITE trip generation rates are based largely on suburban areas with free and plentiful parking and low-density single land uses. A research study completed in 2007 and summarized in *TCRP Report 128: Effects of Transit Oriented Development (TOD) on Housing, Parking and Travel*, supports the hypothesis that residential TOD's produce fewer automobile trips. Evidence was derived from original research on trip generation and parking from 17 built residential TOD projects in four metropolitan areas. The research's key conclusion is that ITE trip generation and parking generation rate overestimate automobile trips for TOD housing by approximately 50%.
The northwestern portion of the study area would be within 0.5 mile of the Riverhead Station stop on the LIRR and the Suffolk County Transit (SCT) bus 92S has a stop in the study area. Therefore, based on the recommendation of ITE, there is a need to adjust the trip generation totals to reflect the availability of transit. However, since the ridership for the transit uses in the study area are currently low, no credit was taken for transit usage. However, public transit ridership is expected to increase with the development of this project and hence the potential for increased demand for additional train and bus services. At that time the MTA and SCT may analyze the need for additional train and bus services. Therefore, the result of the traffic analyses for this project is conservative.

Table 10-3b summarizes the total trip generation for Theoretical Development Scenario adjusted for internal credit and pass-by.

Table 10-3b
TRIP GENERATION, Proposed Plan
Adjusted

Use	Distribution	AM Peak Hour	PM Peak Hour	Saturday Peak Hour
Proposed Project	Enter	557	1,266	1,116
	Exit	1,053	1,033	1,093
	Total	**1,610**	**2,299**	**2,209**

As can be seen from **Table 10-3b** above, Theoretical Development Scenario will generate 1,610 new trips (557 entering and 1,053 exiting) during the weekday AM peak hour, 2,299 new trips (1,266 entering and 1,033 exiting) during the weekday PM peak hour and 2,209 new trips (1,116 entering and 1,093 exiting) during the Saturday midday peak hour.

Analysis Results

In order to identify the impacts created by The Plan, capacity analyses were conducted at the study intersections for the No Build and Build Conditions during the weekday AM, PM and Saturday midday peak hours. The results of the capacity analyses for the No Build and Build Conditions were compared to determine the impact that will be created on the study intersections by The Plan.

Tables 10 through 15 **[Appendix K]** summarize the No Build, Build and Build with Mitigation Conditions for the AM peak hour, PM peak hour and Saturday midday peak hour, respectively. These tables are followed by a detailed description of each intersection, the LOS comparison, and the mitigation employed to maintain an acceptable LOS or achieve No Build LOS.

Main Street at Peconic Avenue/Roanoke Avenue

During the No Build Condition, the eastbound West Main Street through movement at Peconic Avenue operates at LOS D during the AM peak hour and at LOS E during the PM and Saturday midday peak hours. The northbound Peconic Avenue left turn and right movements operate at LOS F and B respectively during the analyzed peak periods. The westbound East Main Street left turn movement at Peconic Avenue operates at LOS C, F and F during the weekday AM, PM and Saturday midday peak hours respectively. The westbound West Main Street approach at Roanoke Avenue operates at LOS D, F and D during the weekday AM, PM and Saturday midday peak hours respectively and the rest of the traffic movements will operate at LOS B or better during the weekday AM, PM and Saturday midday peak hours. Overall, the intersection of West Main Street at Peconic Avenue operates at LOS C, E and D during the weekday AM, PM and Saturday midday peak hours and the intersection of East Main Street at Roanoke Avenue operates at overall LOS B, D and B during the weekday PM and Saturday midday peak hours.

After the construction of The Plan, the intersection of West Main Street at Peconic Avenue will continue to operate at LOS E during the PM peak hour, will change from LOS C to LOS D during the weekday AM peak hour with a minimal increase in delay of 9.6 seconds and will change from LOS D to LOS E during the Saturday midday peak hour with a minimal increase in delay of 8 seconds. The intersection of East Main Street at Roanoke Avenue will continue to operate at overall LOS B during the weekday AM and Saturday midday peak hours and will change from LOS D to LOS E during the weekday PM peak hour with a minimal increase in delay of 4.1 seconds.

As can be seen from the review of the capacity analyses results at this intersection, the operation of the intersection will not be significantly impacted by the construction of The Plan, therefore no mitigation measures should be required at this intersection due to The Plan. However, it should be noted this intersection will be impacted by the development scenario proposed for the Riverhead BOA Step II Nomination. Measures to mitigate impacts at this intersection analyzed under the Riverhead BOA and outlined in the other planned development section of this report will improve the operation of the intersection. Since the level of traffic that will be added to this intersection due to the Riverhead BOA is higher than that from the proposed Riverside Plan, it is our professional opinion that these mitigations will also improve any minor impacts created by the Riverside Plan and hence reanalyzing the intersection with these improvements should not be necessary.

It should be also noted that, for a downtown business district LOS E conditions can be an acceptable condition as vehicles would travel slower in the business district, and as long as there are alternatives to the automobile travel. The lower speeds may also discourage some of the through traffic that today uses Main Street to avoid traffic congestion on CR 58.

Flanders Road (NYS Route 24) at Cross River Drive (CR 105)

Under the No Build Condition, the eastbound left turn movement operates at LOS E, F, F during the weekday AM, PM and Saturday midday peak hours respectively. The eastbound through and right turn movements operate at LOS E and A respectively during the analyzed peak hours. The westbound left turn movement operates at LOS F during the weekday AM peak hour and at LOS E during the weekday PM and Saturday midday peak hours. The westbound through movement operates at LOS F during the analyzed peak hours and the westbound right turn movement operates at LOS D or better.
The northbound left turn movement operates at LOS F during the analyzed peak periods. The northbound through movement operates at LOS D during the weekday AM peak hour and at LOS E during the weekday PM and Saturday midday peak hours. The northbound right turn movement operates at LOS A during the analyzed peak hours.
The southbound left turn movement operates at LOS F. The rest of the southbound traffic movements operate at LOS C or better.
After the construction of the project, some of the eastbound and westbound traffic movements experienced a change in LOS with an increase in delay and the No Build LOS was maintained for the northbound and southbound traffic movements but with increases in delay. In order to mitigate the impacts at this intersection, signal timing optimization and change of splits will be required. With this mitigation measure, the intersection will operate at No Build LOS or better.

Flanders Road (NYS Route 24) at Ludlam Avenue

During the No Build Condition, the westbound Flanders Road approach operates at LOS A and the northbound Ludlam Avenue approach operates at LOS C during the analyzed peak hours. After the construction of the project, the westbound Flanders Road approach will operate at LOS B or better and the northbound Ludlam Avenue approach will operate at LOS D.

Flanders Road (NYS Route 24) at Enterprise Zone Drive

During the No Build Condition, the westbound Flanders Road approach operates at LOS A and the northbound Enterprise Zone Drive left turn and right turn movements operate at LOS C or better during the analyzed peak hours. After the construction of the project, the westbound Flanders Road approach will operate at LOS B and the northbound Enterprise Zone Drive approach will operate at LOS D or better.

Flanders Road (NYS Route 24) at Old Quogue Road

During the No Build Condition, the westbound Flanders Road approach operates at LOS A and the northbound Old Quogue Road approach operates at LOS C during the weekday AM peak and PM peak hours and at LOS D during the Saturday midday peak hour. After the completion of the project, the westbound Flanders Road left turn movement will operate at LOS B or better and the northbound Old Quogue Road approach will continue to operate at LOS C during the weekday AM peak hour and will change from LOS C to E during the PM peak hour and from LOS D to F during the Saturday midday peak hour. In order to improve the operation of this intersection after the construction of the project, it is recommended to redesign the northbound Old Quogue approach to provide one right turn lane and one left turn lane. With this improvement, the northbound Old Quogue Road approach will operate at LOS C, D and E during the weekday AM, PM and Saturday midday peak hours respectively.

Flanders Road (NYS Route 24) at Vail Avenue

During the No Build Condition, the westbound Flanders Road approach operates at LOS B during the weekday AM peak hour and at LOS A during the weekday PM and Saturday midday peak hour. The northbound Vail Avenue approach operates at LOS C during the weekday AM peak hour and at LOS D during the weekday PM and Saturday midday peak hours. After the construction of the project, the westbound Vail Avenue left turn movement will operate at LOS B during the analyzed peak hours and the northbound Vail Avenue approach will operate at LOS F during the analyzed peak periods. In order to improve the operation of this intersection after the construction of the project, it is recommended to redesign the northbound Vail Avenue approach to provide one right turn lane and one left turn lane. In addition to the redesign of the northbound approach, re-stripe the painted median on Flanders Road just west of Vail Avenue as a center two-way left turn lane consistent with the rest of Flanders Road. With these improvements, the northbound Vail Avenue approach will operate at LOS C during the weekday AM, PM and Saturday midday peak hours.

CR 104 at Pine Street

During the No Build Condition, the southbound CR 104 approach operates at LOS A and the westbound Pine Street approach operate at LOS C or better during the analyzed peak hours. As part of this project, a driveway to one of the development sites will be constructed on CR 104 directly opposite Pine Street. After the construction of the project, the northbound and southbound CR 104 approaches continue to operate at LOS A and the eastbound and westbound approaches will operate at LOS D and C respectively during the weekday AM peak hour and will operate at LOS F during the weekday PM and Saturday midday peak hours. These failing levels of service are due to the traffic volumes on CR 104; however the queues on Pine Street can be accommodated without causing traffic circulation issues on the project sites.

CR 104 at Ludlam Avenue/Old Quogue Road

As previously mentioned, the intersection of CR 104 at Ludlam Avenue is a non-standard four leg intersection. CR 104 runs northwest and southeast and has no traffic control. Ludlam Avenue runs east/west and intersects CR 104 at a right angle with a westbound stop control. Old Quogue Road runs southeast and intersects CR 104 at an acute angle with a stop control at the intersection for through and left turn movements and a yield control for right turn movements. Since the intersection is a non-standard four leg intersection, the analyses were conducted using the synchro simulation rather than the synchro stop-control analyses.

During the No Build Condition, the southeastbound CR 104 approach, the southbound Old Quogue Road approach and the westbound Ludlam Avenue approach operates at LOS A during the analyzed peak hours. After the completion of the project, the CR 104 approaches will operate at LOS B or better during the analyzed peak hours. However, the southbound Old Quogue approach and the

westbound Ludlam Avenue approach will operate at failing LOS during the PM peak hour and at LOS E or better during the weekday AM and Saturday midday peak hours. In order to improve the operation of this intersection after the construction of the project, it is recommended to install a three phase traffic signal at this intersection. With the installation of a traffic signal, the intersection will operate at overall LOS C or better with all traffic movements operating at LOS D or better during the analyzed peak hours.

Vail Avenue at Pine Street
During the No Build Condition, all the approaches to the intersection operate at LOS A during all the analyzed peak hours. After the construction of the project, all the approach movements will operate at LOS B or better during the analyzed peak hours.

Old Quogue Road at Pine Street
During the No Build Condition, all the approaches to the intersection operate at LOS A during all the analyzed peak hours. After the construction of the project, all the approach movements will operate at LOS B or better during the analyzed peak hours.

Roundabout – Peconic Avenue/CR 94/CR 63/CR104/NYS 24)
Peconic Ave, CR 94, CR 63, CR 104 and NYS 24 intersect to form a five leg one lane roundabout. Nelson and Pope conducted an extensive study of this roundabout for Suffolk County Department of Public Works. The roundabout was analyzed using the Rodel Software. The roundabout was analyzed under the Riverside study using the 2015 existing traffic volumes. Under the Existing Conditions, all the approaches to the roundabout operate at LOS B or better during the AM peak hour, at LOS D or better during the PM peak hour and at LOS C or better during the Saturday midday peak hour. Nelson and Pope developed several improvement measures for this roundabout and provided Suffolk County with the most viable and preferred improvement measures (construction of a two lane five-leg roundabout). The analysis of the preferred mitigation measures was incorporated in the No Build and Build analyses for the proposed Riverside Plan. During the No Build Condition with the design and construction of the two lane roundabout, all the traffic movements will operate at LOS B or better during the analyzed peak hours. After the completion of The Plan, all traffic movement will operate at LOS C or better except for the CR 94 approach that will operate at LOS D during the PM peak hour.

10.3 Mitigation Measures

Based on the results of the Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Nelson & Pope that the construction of The Plan with the implementation of the recommended mitigation measures will not result in adverse traffic impacts in the study area. Increases in traffic from the proposed project can be accommodated at some study intersections without any mitigation. Some locations will require mitigation ranging from adjustments to the signal timings, additional lanes and installation of a traffic signal. Although there will be changes in the LOS at some intersections, they will continue to operate at acceptable levels of service. The following are the recommended mitigations.

- Optimize and adjust the splits at the signalized intersection of Flanders Road (NYS Route 24) and CR 105.
- Redesign the northbound Old Quogue Road approach at its intersection with Flanders Road (NYS Route 24) to provide one right turn lane and one left turn lane.
- Redesign the northbound Vail Avenue approach at the intersection of Flanders Road (NYS Route 24) at Vail Avenue to provide one right turn lane and one left turn lane. In addition to the

redesign of the northbound approach, re-stripe the painted median on Flanders Road just west of Vail Avenue as a center two-way left turn lane consistent with the rest of Flanders Road.

- Install a traffic signal at the intersection of CR 104 at Old Quogue Road and Ludlam Avenue.

11.0 AIR QUALITY AND NOISE

11.1 Existing Conditions

11.1.1 Air Quality

The 1970 Clean Air Act ("CAA") required the Environmental Protection Agency ("EPA") to establish National Ambient Air Quality Standards ("NAAQS") for six principal pollutants; carbon monoxide ("CO"), nitrogen dioxide ("NO_2"), ozone ("O_3"), lead ("Pb"), particulate matter ("PM"), and sulfur dioxide ("SO_2"). Under the requirements of the Clean Air Act, States are required to ensure that air quality levels do not exceed the NAAQS. Areas that exceed the NAAQS for any of the six criteria pollutants are designated nonattainment areas. Currently, Suffolk County is a marginal nonattainment area for ozone (8-Hr Ozone 2008 standard)[1]. Accordingly, New York State has a State Implementation Plan ("SIP"), which describes plans for attaining and maintaining compliance with the NAAQS for ozone. It is noted that the area was also formerly a nonattainment area for inhalable fine particulate matter ("$PM_{2.5}$"); however, on June 27, 2013, the NYSDEC submitted a redesignation request/maintenance plan to EPA for the New York metropolitan area for PM2.5[2] and this plan was approved by EPA on April 18, 2014.

Air quality monitoring data is published by the New York State Department of Environmental Conversation ("NYSDEC") Division of Air Resources for the continuous and manual ambient air monitoring systems that exist throughout the State to establish ambient air quality. Air quality data is compared to the NAAQS and New York State standards. An ozone air quality monitoring station is located at 39 Sound Avenue in Riverhead. There are no monitoring stations for Sulfur Dioxide and Inhalable Particulates located in Riverhead, however, regional air quality can be characterized from a review of data collected at the closest NYSDEC air quality monitoring stations. The nearest air quality monitoring station for Sulfur Dioxide and Inhalable Particulates is located at Holtsville, which is approximately 25 miles southwest of the of the study area. The next closest station is located in Eisenhower Park (sulfur dioxide).[3] Inhalable particulates $PM_{2.5}$ are measured continuously at Holtsville and Eisenhower Park. O_3 is monitored at Riverhead, Holtsville and Babylon. The most recent ten years of available air quality monitoring data is available on the NYSDEC's website through 2014. **Table 11-1** provides the most recent reported annual air quality monitoring data for O_3, and $PM_{2.5}$.

[1] http://www.epa.gov/ozonedesignations/2008standards/final/region2f.htm
[2] http://www.dec.ny.gov/chemical/92166.html
[3] http://www.dec.ny.gov/chemical/29306.html

TABLE 11-1
2014 AIR MONITORING DATA

Pollutant	Standard	Holtsville Average 2012 -2014	Eisenhower Park Average 2012-2014
$PM_{2.5}$	Average of last 3 years' annual means not to exceed 15 µg/m^3	Average of annual means: 7.1 µg/m3	Average of annual means: 7.4 µg/m3
	Average of 98th percentile for last 3 years not to exceed 35 µg/m^3	Average of 98th percentile: 18.6 µg/m3	Average of 98th percentile: 19.2 µg/m3
Pollutant	**Standard**	**Riverhead Operated 3/12 – 11/4**	**Holtsville Operated 3/11 – 12/31**
O3	4th highest maximum 8-hour average not to exceed an average of 0.075 ppm during the last three years	0.075	0.071

Notes: µg/m^3: microgram per cubic meter

The data indicates generally excellent air quality for the parameters in areas where monitoring is conducted and the full data for these stations and other area stations in NYSDEC Region 1 indicate a trend of general improvement in air quality for those parameters sampled, including ozone levels. Ground-level ozone is considered a secondary pollutant, since it is formed through a photochemical reaction between nitrogen oxides and reactive hydrocarbons (Volatile Organic Compounds) in the presence of elevated temperatures and ultraviolet light. The sources of the primary pollutants that form ozone include automobiles, trucks and buses, large combustion sources such as utilities, fuel stations, print shops, paints and cleaners, and engines (including construction and lawn equipment). Ozone level concentrations that exceed the NAAQS usually occur on hot sunny summer days with little to no wind. The present air quality in the vicinity of Riverside is expected to be excellent for the majority of the year, with the exception of a few days in summer when ozone levels are higher than normal.

11.1.2 Noise

This section examines the basic considerations for assessing noise or sound pressure level (SPL) impacts and evaluates existing noise conditions in and around the Study Area. It seeks to identify potentially problematic noise generators, as well as sensitive noise receptors in the area. The purpose of a noise impact assessment is to quantitatively and/or qualitatively analyze the potential for nuisance noise impacts under a proposed Action or development scenario. This initial assessment provides the basis from which subsequent subsections will evaluate noise impacts, weigh the available means and alternatives for avoiding or reducing sound impacts, and recommend the best and most practicable strategies for mitigation.

Noise is “any loud, discordant or disagreeable sound or sounds” (NYSDEC, 2000). Sound that causes an unwelcome disturbance or that is harmful to the physical or psychological well-being of humans is often referred to as noise pollution. Such harmful, potentially harmful, distressing

or unwelcome sound can also have quality of life and economic ramifications including a reduction in the enjoyment of private property or a lessening of one's quality of life and under extreme conditions the lowering of property values if the noise exposure is chronic and/or severe. Other specific impacts to humans from extreme, high-level or prolonged noise exposure include: inability to sleep or concentrate, discomfort, fatigue, anxiety, obstruction of normal communications, and under severe conditions hearing loss.

Noise can be generated by a variety of sources but is classified under two broad categories: mobile sources, including automobiles/traffic, construction vehicle activity, delivery trucks, trains and airplanes; and fixed or stationary sources, such as major/intensive commercial activities; industry (especially heavy industries involving the operation of manufacturing machinery, motors, pumps, fans, compressors, power generators, and/or HVAC equipment; large outdoor or semi-enclosed places of public assembly, including sporting events at active recreational facilities, special events that require the use of amplified sound, farming activities/machinery, and outdoor residential maintenance work, to name a few. Potential noise issues associated with future development under the proposed zoning scenario assuming potential increased traffic, new commercial, institutional, and light industrial uses, typical residential activities, and outdoor public events include:

- temporary noise from construction and site preparation activities including tree and brush removal, grubbing, grading, installation of utilities, and construction of roads, parking lots, and buildings;
- operation of equipment at light industrial facilities;
- periodic use of site maintenance tools such as leaf blowers, snow blowers, string and hedge trimmers, and lawn mowers;
- heavy truck traffic, including delivery vehicles, and garbage trucks;
- agricultural activities (which would be permitted) although they are unlikely in this area due to insufficient land area and soil conditions;
- additional vehicle traffic; and
- increased pedestrian activity and future outdoor events along the river such as Water Fire.

Sound is typically assessed examined from four fundamental perspectives:

- SPLs or loudness;
- duration of the sound (constant or intermittent);
- pitch or frequency of sound waves; and
- purity of the sound (which worsens the level of disturbance).[4]

In order to protect hearing, the EPA has established an equivalent (eq)-based threshold standard or $L_{eq(24)}$ of no more than 70dB or a 70dB eq over a 24-hour period, above which hearing effects can occur. The $L_{eq(24)}$ assessment approach and standard, which is commonly used to assess noise in the workplace, takes into consideration the average SPLs that have been emitted over a period of 24-hours or less. For example, the USEPA (1974) notes that exposure to 75 dBs

[4] Pure sounds consist of one steady pitch. They are uncommon.

during an 8-hour period is comparable to exposure of 70 dBs over a 24-hour period, assuming that the sound levels experienced by the receptor for the remaining 16 hours of the day are insignificant. Thus, exposure to 75 dBs for 8-hours with no other significant exposures during the day would be within the EPA's exposure standard for the protection of hearing.[5]

Unlike, some workplace exposures that have the potential to actually effect hearing, the impacts of a busy community center on the surrounding neighborhood is usually more of a nuisance or annoyance, although such noise can be distressing. The severity of a noise impact is predicated on various factors. Noise affects those land uses and activities that are closest to its source and decays in general accordance with the "inverse square law" which states that sound pressure levels (SPL) will vary in an inversely proportional manner in accordance with the square of the distance from the source. The law states that, beginning at a reference distance of 50 feet from the source and assuming no physical obstructions or other mitigating features or circumstances, each time the distance the sound travels from its source is doubled, there is a corresponding 6 decibel (dB) reduction in sound level (NYSDEC, 2000).

Ambient noise is another factor affecting noise levels and the potential impacts of a land use or activity on its surrounding community. The presence of one or more sources of noise can have an additive effect on SPLs. The increase in SPL, measured in dBs or dB(A)s[6] from multiple sources, however, is not the sum of the SPLs produced by each source as is sometimes thought to be the case (i.e., two sources that generate SPLs of 70 dBs do not produce an SPL of 140 dB).[7] Instead, the additive effect is based on a relatively smaller dB increment depending on the relative noise levels of the various sources. The overall sound levels can be estimated using a sound meter or a table of additive sound adjustments and simple addition and subtraction based on expected sound levels of each source (NYSDEC, 2000 and USEPA, 1978).

The time of day at which noises are generated is also important in assessing SPL impacts. For example, noise levels at night when human activities or operations are reduced, ambient SPLs are low, and nearby residents are home from work and attempting to sleep, can be especially problematic. This is because many receptors (e.g., private residences, hospitals, nursing homes, etc.) are more sensitive to noise during late night and early morning hours when people are trying to relax or sleep and that ambient background SPLs are generally lower which typically causes receptors to focus on and be more disturbed by individual night and early morning sounds.

Potential Sound Receptors

Most land uses can be affected by noise. However, certain individuals and land uses are more susceptible to the negative effects of noise. These individuals and land uses are commonly referred to as "sensitive noise receptors." Sensitive noise receptors include schools, libraries,

[5] $L_{eq(24)}$ is commonly used to assess the effects of workplace noise on employees.
[6] dB(A) refers to the A-weighted decibel scale which focuses on the normal frequency range of human hearing (20 to 20,000 Hertz).
[7] Decibels are based on a logarithmic scale. For this reason, they cannot be simply added or subtracted to determine sound levels.

hospitals, nursing homes, churches, parks, and private residences. Based on an inventory of the area, several potential noise-sensitive land use receptors were identified:

- Phillips Avenue Elementary School;
- Southampton Head Start;
- Residences;
- several small churches;[8] and
- possibly some of the nearby passive parks.

Future land uses, such as residential apartments within the area that will be constructed might also be considered sensitive receptors if they are in proximity to a noise intensive use and are not properly protected by sound-proofing, and/or adequate setbacks, or sound barriers or attenuators.

Potential Sound Generators

While the exact nature of individual future land uses have not been specifically determined for the Riverside Revitalization Area and may be subject to market forces, individual private property owner preferences, and various other considerations, the area would be developed in accordance with the permissible mix of land uses listed in **Table 7-4** of **Section 7.2.1** of this Generic DEIS and would be generally consistent with the Theoretical Development Scenario outlined by the RRAP. Under the above zoning and development scenario, land uses that may be established in the area generally include residential, hotel, office, retail, recreational business, restaurant, theater, museum, light industry, agriculture, utilities, and parking. In regard to light industry, the specific light industrial uses that could be permitted in the Riverside Overlay District include: artisan production facilities, research & development facility, data information center, document/miscellaneous storage, renewable energy facilities, agricultural uses, and animal husbandry. None of the above land uses, with the possible exception of agriculture is likely to generate any level of noise and it is highly unlikely based on soil conditions and limited space that agriculture would ever be established. Some permitted land uses may contribute to low levels of ambient noise, particularly during daytime work hours; however, land uses, such as heavy industry and manufacturing that are typically more intensive in terms of noise, would not be permitted.

Town Noise Ordinance

Chapter 235, "Noise," of the Southampton Town Code sets forth a number of standards and regulations for controlling noise and noise pollution. The Chapter provides standards to assess and control noise in the Town based on the hours of the day, sound frequency, and SPLs that are measured at or beyond the property line on which the noise is generated. The standards and regulations outlined in the Code are divided into two distinct regulatory classifications with different standards based on the time of day that the noise is created. The separate standards for each time frame were designed to account for the differences in impact between "normally

[8] Churches are generally considered sensitive noise receptors. However, some potential noise conflicts are reduced or eliminated simply due to the time of the week and the limited time that the typical church is in use (e.g. typically Sunday morning masses).

active" daytime hours and night and early morning periods.[9] The two time classifications are 7:00 a.m. through 7:00 p.m. and 7:00 p.m. through 7:00 a.m. Section 235-6 of the Town Code sets forth penalties for violating the Town's noise standards. Section 235-4 A lists land uses that are exempt from the Town's noise standards.

- The intermittent or occasional use between 7:00 a.m. through 7:00 p.m. of homeowner's light residential outdoor equipment or commercial service equipment, provided that said equipment and its use comply with the other provisions hereof.
- Construction activities between 7:00 a.m. through 7:00 p.m. and the associated use of construction devices or the noise produced thereby, provided that such activities and such equipment and their use comply with the other provisions hereof.
- Agriculture.
- Noise from church bells or chimes used in conjunction with religious services.
- Public celebrations.
- Noise of aircraft flight operations.
- The lawful operation of properly equipped motor vehicles on any public way.
- Noise from snowblowers, snowthrowers and snowplows when operated with a muffler for the purpose of snow removal.
- Noise generated from lawful athletic or recreational events held on the property of the Town of Southampton so suited for such activities.
- Organized activities sponsored by any school district, private school or fire district or department within the Town of Southampton.
- Noise from municipally sponsored celebrations or events.
- Noise from lawful fireworks displays, parades, carnivals and the like held in accordance with all pertinent provisions of the Southampton Town Code.
- Noncommercial public speaking and public assembly activities conducted on any public space or public right-of-way.
- Emergency construction or repair work performed by or authorized by the State of New York, the County of Suffolk, the Town of Southampton, Long Island Lighting Company, New York Telephone or any other recognized utility serving the area.
- The activities of any fire department, ambulance squad or similar emergency or rescue organization.
- Noncommercial amplified sound that does not exceed the noise standard established in § 235-3 of this chapter.

11.2 Potential Impacts

11.2.1 Air Quality

Under current and future conditions, the sources of air emissions located within the Study Area are generally related to vehicle emissions as well as stationary sources which may require registrations through the NYSDEC and existing heating, ventilation, and air-conditioning (HVAC) systems. As noted, the only NYSDEC regulated establishments within the area are under the lowest emission level regulated by the NYSDEC (such as automobile repair shops).

[9] Some exceptions and exemptions to the requirements are outlined under §235-4, *Exceptions*, of the Town Code.

The achievement of the Theoretical Development Scenario under the Proposed Action has the intention of increasing the level of development; however, the types of developments permitted under the proposed ROD zoning would not result in major sources of air pollutants. Further, any uses would be required to comply with NYSDEC regulations where needed, just as such uses would be required to comply under current zoning. In addition, development under the ROD includes design elements and incentives that will be inherently beneficial in terms of air quality, the intent is to create a pedestrian friendly mixed-use walkable environment that will encourage a reduction in vehicular use, as people will opt to walk to and from home, shopping, work and entertainment.

Following adoption of the new ROD Zones and during implementation of development approved under the new overlay zoning, there could be the potential for localized impacts in air quality resulting from construction related activities, most typically related to dust generated during earthwork. While this is not expected to vary from construction activities occurring under the present zoning, standard procedures may be required as a condition of approval to require use of water trucks to mitigate dust impacts during grading and site preparation (see **Section 11.3**). In addition, sites would be required to be stabilized following construction or during delays in construction if they occur. Such mitigation measures would minimize impacts to the maximum extent practicable during and following construction.

While future site developments may require oversight by the NYSDEC for regulated facilities (as would be required under the current zoning), the Proposed Action is not anticipated to result in a significant adverse impact on air quality.

11.2.2 Noise

Land within the Study Area is currently zoned for many diverse uses, including single-family residences, businesses, offices, and light industry. The existing Light Industry (LI-40) zone allows numerous industrial uses, many more than would be permitted under the proposed zoning and many of which would clearly be more intensive and more likely to generate noise than those that might be established under the Proposed Action. The LI-40 zone also currently allows uses such as parks, offices, public libraries and museums that may be somewhat sensitive to noise as well as other more intensive uses such as agriculture which is permitted under the proposed zoning scheme but is exempt from the Town's noise standards.

Some outdoor activities such as Waterfire that are considered under the proposed redevelopment and revitalization scenario may generate occasional temporary evening and night-time noise. These functions would likely be exempt from noise requirements pursuant to §235-4 (5) "public celebrations," and/or §235-4 (11) "municipally sponsored celebrations or events." Special events licensing would also likely not be required as indicated in the list of exemptions provided in §283-2 A. (3), "Licensing, Exemptions" of the Code which waives this requirement for "events sponsored and conducted entirely by the Town."

Future demolition and construction activities would generate temporary noise which may go on in phases at different locations across the Study Area over a ten-year window; however, the

generation of noise from demolition and construction activities would be restricted to 7:00 a.m. through 7:00 p.m. and would not be performed on Sundays or major holidays. Specific activities that may generate noise include: demolition of buildings; clearing, grubbing, excavation and grading of land; removal of existing pavement, fuel storage tanks, sanitary systems and cesspools; building construction; installation of utilities; and landscaping. Post development maintenance of building exteriors and grounds (lawn mowing, string trimming, snow plowing, snow blowing, etc.), outdoor activities and traffic would generate minimal noise and would be expected to be similar in magnitude to that of downtown Riverhead. As noted in §235-4 A of the Town Code, activities such as snow removal equipment when operated with a muffler for the purpose of snow removal, and the lawful operation of properly equipped motor vehicles on any public way are exempt from Town noise standards.

All future activities will be subject to the Town's Noise ordinance (Chapter 235) which addresses maximum sound levels during day, night and morning hours and penalties for noncompliance. Therefore, based on these considerations, it does not appear that the nature and intensity of the types of future land uses that would be permitted would be very much different from development under current zoning, although the potential for some of the more intensive industrial activities would be eliminated and some additional but limited noise may be generated by greater development density, area activities, and special events. Although certain outdoor municipal events may be exempt from noise and special permit licensing, it is expected that events such as Waterfire will be subject to considerable planning to limit noise to a reasonable hour, and manage other potential impacts of mass gatherings (traffic, parking, public safety and emergency services, solid waste disposal, sanitary waste disposal, post-event cleanup and restoration, etc.).

Reducing noise impacts to the "maximum extent practicable" involves five fundamental aspects of noise control. These include strategies that focus on and address: 1) the source or origin of the noise; 2) the sound pathway between the source of the noise and the noise recipient; 3) the noise receptor; and 4) Compliance to Noise Codes; and 5) Code enforcement. Controlling and mitigating potential noise impacts may be best accomplished through both general site planning and individual project reviews. Of particular importance in sound mitigation are site design and layout of structures, use of appropriate construction materials and practices to maximize sound attenuation, and use of noise-mitigating land management tools if necessary such as:

- establishing suitable setbacks between future development and incompatible abutting properties;
- segregating less-compatible on-site land uses (e.g., industrial and residential) and land use activities (e.g., loading areas/garbage dumpsters, air conditioning units, etc. from residential uses);
- creating vegetated buffers between sensitive receptors;
- requiring that potentially significant noise generating commercial and industrial operations be conducted indoors, where possible; and
- using sound barriers when practicable such as soundwalls, solid fencing, vegetated berms, properly constructed common interior walls, double pane glass, etc.

Since proposed uses are not expected to be especially intensive in terms of noise, significant impact is not expected.

11.3 Mitigation

While no mitigation is required for the Proposed Action, which involves the adoption of the proposed zoning amendments, future review of site specific plans for development under the proposed zoning amendments may require mitigation measures which are described below.

- Construction activities will conform to Town Code Chapter 235 "Noise" regulations including conformance to the maximum prescribed sound pressure levels at the property line for activities occurring between the hours of 7:00 AM and 7:00 PM.

- Comply with NYSDEC air permit requirements if applicable, though major sources are not permissible (and minor facilities, such as auto uses and dry cleaners, would require registrations through the DEC for minor emission sources).

- Mitigate fugitive dust related to construction activities using proper construction management techniques, erosion control measures, wetting of excessively dry soils.

12.0 SOCIOECONOMICS

This section provides a demographic profile of the Riverside community to provide the bases for assessment of social impacts and economic impact analyses (construction and operational job creation) as they relate to overall potential socioeconomic impacts of the Proposed Action and Theoretical Development Scenario. The data have been extrapolated for the Study Area, unless otherwise indicated.

12.1 Existing Conditions

12.1.1 Demographic Characteristics

The following information and analyses summarize the demographic and socioeconomic characteristics and trends of the Riverside community, identify potential socioeconomic impacts of the Proposed Action, and determine the need for and availability of appropriate mitigation strategies to prevent or alleviate any identified impacts. This section examines U.S. Census Bureau American Community Survey 2013 data for the Study Area and where appropriate, compares them with data for Suffolk County.

Population and Housing

Table 12-1 provides population, and number of households and housing units in the Study Area. A total of 1,711 people reside in 706 households in the Study Area. This equates to an average of 2.42 persons per household compared with the average household size of 3.0 persons for Suffolk County.

Table 12-1
STUDY AREA POPULATION AND HOUSING UNITS

Parameter	2009-2013 Estimate
Total Population	1,711
Total Households	706
Total Housing Units	788

Within the Study Area, 72 percent of housing units are owner occupied (as compared to 80 percent County-wide). **Table 12-2** compares the median and average home values within the Study Area and Suffolk County based upon ACS 2009-2013 estimates. The median and average home values within the Study Area are significantly lower than within the County of Suffolk. In fact, the "median home value" in Riverside is just 20.8 percent of the County's median home value, while the "average home value" in Riverside is just 33.4 percent of the average County home.

Table 12-2
COMPARISON OF MEDIAN AND AVERAGE HOME VALUE

	Study Area	Suffolk County
Median Home Value	$79,740	$383,400
Average Home Value	$149,876	$448,152

Educational Attainment

Within the Study Area, a substantial portion of the population, 36.7 percent, of persons that are 25 years of age and older ("25+") have not graduated High School or received an equivalency degree. In comparison, 10.2 percent of Suffolk County's 25+ population does not have a High School diploma. However, it is noted that 32.1 percent of the Study Area has a High School Diploma or GED which is slightly higher than within Suffolk County (at 30.0 percent) and the percentage of the population that attended some college is also similar (17.0 and 17.7 percent within the Study Area and County, respectively). However, with respect to advanced degrees, the educational level of the population within the Study Area does not compare with the educational attainment within the County as a whole. Only 4.5 percent of the Study Area 25+ population has a Bachelor's degree and 2.3 percent a Master's degree (as compared to 18.1 percent and 11.1 percent of the 25+ population within the County, respectively). **Table 12-3** provides a comparison of the educational attainment for the Study Area and Suffolk County.

Table 12-3
POPULATION AGE 25+ YEARS BY EDUCATIONAL ATTAINMENT

Population Age 25+ Years By Educational Attainment	Study Area	Suffolk County
No schooling completed	4.8%	1.3%
Nursery School	0.0%	0.0%
Kindergarten	0.0%	0.0%
1-4th Grade	12.6%	0.7%
5-8th Grade	7.7%	2.6%
Some High School	11.6%	5.6%
High School Diploma	22.9%	27.4%
GED	9.2%	2.6%
Some College	17.0%	17.7%
Associate's degree	7.2%	9.2%
Bachelor's degree	4.5%	18.1%
Master's degree	2.3%	11.1%
Professional school degree	0.0%	2.4%
Doctorate degree	0.0%	1.2%

Mobility

Table 12-4 illustrates the number of vehicles available by housing unit within the Study Area as compared with the rest of Suffolk County. The larger percentage for each category is indicated

in bold to illustrate the pattern more readily. This table indicates that within the Study Area, over 56 percent of households have either no or one vehicle, as compared with 31.8 percent within the County.

Table 12-4
OCCUPIED HOUSING UNITS BY VEHICLES AVAILABLE

	Study Area	Suffolk County
Owner occupied		
No vehicle available	**6.7%**	2.2%
1 vehicle available	**33.4%**	17.5%
2 vehicles available	18.3%	**35.8%**
3 vehicles available	13.2%	**16.3%**
4 vehicles available	0.0%	**6.2%**
5 or more vehicles available	0.0%	**2.0%**
Renter occupied		
No vehicle available	1.6%	**3.1%**
1 vehicle available	**15.0%**	9.0%
2 vehicles available	**8.4%**	6.1%
3 vehicles available	**3.5%**	1.5%
4 vehicles available	0.0%	**0.3%**
5 or more vehicles available	0.0%	**0.1%**

*Values shown in bold print are the highest value

Household Income

Suffolk County Department of Economic Development and Planning issued documentation of economic distress indicators and rankings for the County based upon ACS 2008-2012 estimates. Indicators included poverty, unemployment, median income, housing values and public assistance. The Riverside CDP was ranked as the most economically distressed community in Suffolk County based upon those values, which reported a median annual household income of $33,308. The Study Area does not include the entire CDP and thus the values cannot be directly compared to the 2009-2013 estimates provided in **Table 12-5.** However, it is noted that a higher percentage of household incomes on the low end of the scale greatly exceed the percentage of Suffolk County households with this level of income. In addition, the median income of the Study Area, at $38,640 is significantly lower than that of Suffolk County at $87,763.

Table 12-5
COMPARISON OF HOUSEHOLD INCOME

Households By Income	Study Area	Suffolk County
Less than $10,000	1.8%	**3.2%**
$10,000 to $14,999	**5.5%**	2.6%
$15,000 to $19,999	**7.8%**	3.1%
$20,000 to $24,999	**13.6%**	3.1%
$25,000 to $29,999	**5.9%**	3.0%
$30,000 to $34,999	**9.6%**	3.1%
$35,000 to $39,999	**7.5%**	2.8%
$40,000 to $44,999	**12.2%**	3.2%
$45,000 to $49,999	**6.4%**	3.1%
$50,000 to $59,999	4.5%	**6.1%**
$60,000 to $74,999	**15.9%**	9.0%
$75,000 to $99,999	5.7%	**14.3%**
$100,000 to $124,999	0.0%	**12.5%**
$125,000 to $149,999	0.0%	**9.0%**
$150,000 to $199,999	0.0%	**11.1%**
$200,000 or more	3.5%	**10.8%**
Median Household Income	$38,640	$87,763

*Values shown in bold print are the highest value

Disability Status

The number of households with one or more persons with a disability is higher within the Study Area than throughout Suffolk County as is shown in **Table 12-6**.

Table 12-6
HOUSEHOLDS BY DISABILITY STATUS

Households By Disability Status	Study Area	Suffolk County
With 1+ Persons w/Disability	35.3%	20.8%
With No Person w/Disability	64.7%	79.2%

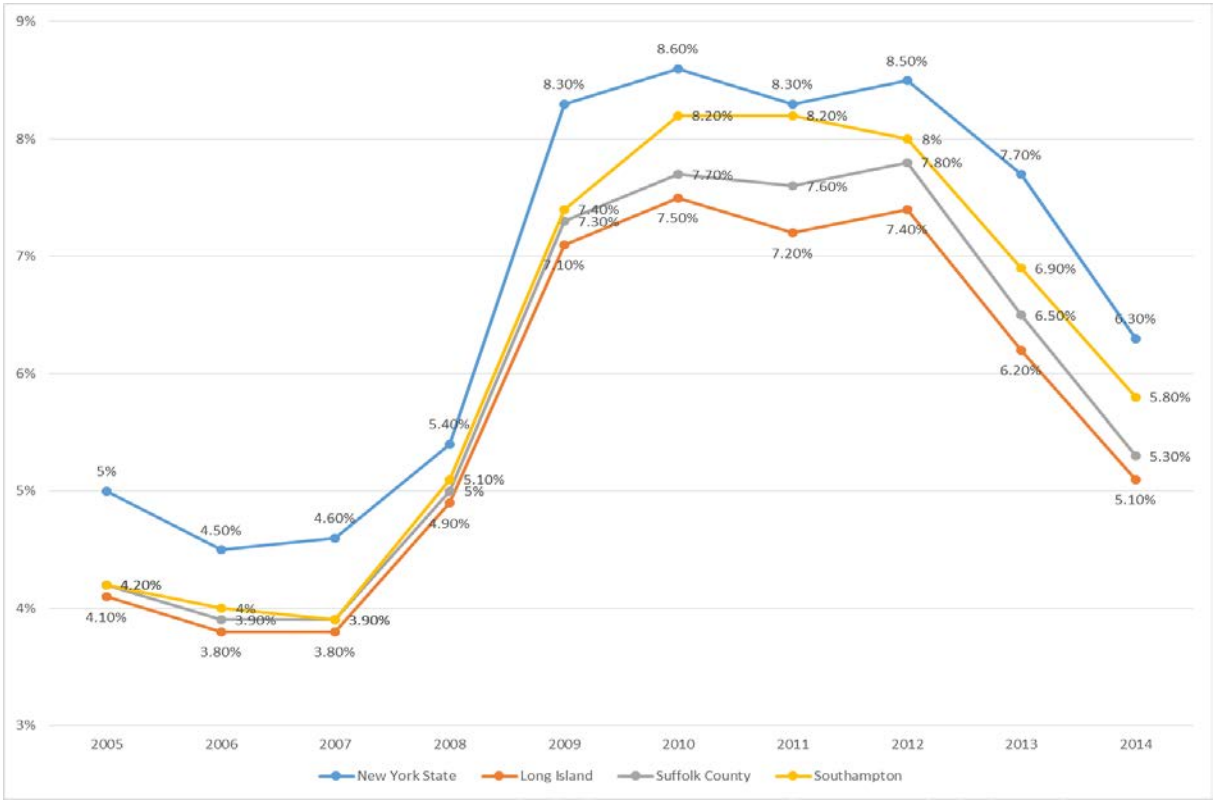
12.1.2 Economic Analysis

An Economic Impact Analysis was prepared to examine the existing conditions pertaining to the local economy, as well as to examine and quantify the economic impacts that are anticipated to result from the Theoretical Development Scenario, per the implementation of the Riverside Overlay Zones and Zoning Map Amendments. Assumptions and complete results of these analyses may be found in **Appendix L**.

Unemployment data for the Riverside CDP, the Town of Southampton, Suffolk County, and Long Island were compared to that of New York State to illustrate the current economic state of

the area in the context of regional economic conditions. As shown in **Chart 12-1**, unemployment rates in the Town of Southampton, Suffolk County, Long Island, and New York State have followed the same pattern between 2005 and 2014 according to data provided by New York State's Department of Labor. Each of the four areas saw their lowest unemployment in the last decade in 2006 and 2007, before increasing by roughly four percentage points each between 2007 and 2009 during the national recession. New York State has consistently had the highest unemployment rate, followed by the Town of Southampton, which is uniformly between 0.4 and 0.5 percentage points higher than Suffolk County.

CHART 12-1
UNEMPLOYMENT TRENDS



Source: New York State Department of Labor, LAUS

A positive trend is that unemployment rates have decreased in all four areas by at least two percentage points between 2012 and 2014 - the last year for which data are available. Southampton's 2014 unemployment rate stood at 5.8 percent, just slightly higher than Suffolk County at 5.3 percent and Long Island at 5.1 percent.

The Riverside CDP does not have a large enough population to have its labor statistics monitored by the Department of Labor. However, it is important to discuss conditions in Riverside, the Study Area, in the context of the larger areas that have already been discussed. To this end, unemployment and labor force participation data were collected from the U.S. Census Bureau for the most recent years available as shown in the **Tables 12-7** and **12-8** that follow. The Census

data on labor force participation are self-reported and skew slightly from the official records of the Department of Labor, as indicated by Suffolk County showing a higher unemployment rate than the Town of Southampton. What is particularly notable here is the extremely high unemployment rate in Riverside. In a countervailing trend to the County and Town data sets, Riverside's peak unemployment was in 2010 at 25.8 percent, but by 2013 it had decreased to 14.6 percent. While the unemployment rate dropped by 11.2 percentage points in the course of four years, it is still more than twice the unemployment rate of either the County or the Town.

Table 12-7
UNEMPLOYMENT TRENDS

Area/Year	2010	2011	2012	2013
Suffolk County	5.8%	6.4%	7.0%	7.4%
Southampton Town	5.8%	5.8%	6.1%	6.3%
Riverside CDP	25.8%	25.3%	18.4%	14.6%

Source: U.S. Census Bureau, Selected Economic Characteristics, DP03

Even more troubling than the unemployment rate in Riverside is the very low labor force participation rate. Labor force participants are classified as individuals who are either working or looking for work. Those who are not participating in the labor force may be retired, or prevented from doing so by disability or school attendance, or they may have been out of work for so long that they have given up on seeking regular employment.

Table 12-8
LABOR FORCE PARTICIPATION

Area/Year	2010	2011	2012	2013
Suffolk County	66.4%	66.5%	66.3%	66.1%
Southampton Town	62.4%	61.5%	60.7%	59.6%
Riverside CDP	32.4%	28.6%	23.1%	25.7%

Source: U.S. Census Bureau, Selected Economic Characteristics, DP03

As shown in **Table 12-8**, labor force participation in Suffolk County and Southampton over the past four years has averaged out at roughly two thirds of the adult population. In Riverside, only one in every four adults is working or seeking employment. This suggests that there is a need for activities that will induce job creation.

12.2 Potential Impacts

The Proposed Action is a development and redevelopment planning initiative designed to assist the Town and Riverside Community in achieving numerous long-standing community goals to revitalize the Riverside Hamlet. The proposed adoption of the BOA, RRAP and Overlay Zones have been preceded by years of study and extensive community and agency outreach that has recognized a critical need for economic development and the revitalization of the Riverside community that promotes sustainable economic development. As described in **Section 2.0**, the

proposed Zoning Amendments have been created to encourage redevelopment through the creation of active, mixed-use districts which allow flexibility to meet changes in the market demands and so that the building typologies can adapt to changes in use in the future. The proposed Riverside Overlay Zone would encourage the development of economically diverse high quality housing, modern retail, commercial, office, hotel space and civic uses, integrated with well-designed pedestrian friendly streetscapes, and appropriately placed open and green spaces. By providing incentives for investment in the Riverside community, the impacts of the Proposed Action are anticipated to result in significant beneficial economic benefits to the community and improved socioeconomic conditions as the area revitalizes and attracts a critical mass of activity. These benefits include the creation of numerous construction jobs, a wide variety of long-term full-time and part-time employment opportunities, significant additional tax revenue and significant new opportunities for newly constructed community benefit housing opportunities (see **Section 12.2.1** below).

A significant benefit anticipated in redevelopment under the proposed ROD is the requirement for 50 percent of the total number of housing units constructed to be offered in perpetuity as Community Benefit housing units, administered pursuant to Chapter 216 of Town of Code. Based on the Theoretical Development Scenario, which contemplates the construction of 2,267 residential units, this code requirement would equate to over 1,100 new Community Benefit housing units reserved for income eligible households. Chapter 216 currently requires a minimum of 10 percent of the total number of housing units to be constructed as Community Benefit housing for typical density incentive projects. However, since one of the major goals of the RRAP is to provide a quality community for families to thrive, the availability of affordable housing was deemed a vital component in achieving this goal. Thus, although the current Town Code requires 10 percent of the total units to be constructed to adhere to this standard, the proposed ROD has established a 40 percent increase in Community Benefit Units constructed and administered under Chapter 216 (or an increase of over 900 Community Benefit Units under the Theoretical Development Scenario). Chapter 216 also establishes a priority for the lottery of Community Benefit Units, where preference is provided to emergency service providers, veterans, existing residents of the Hamlets of Riverside and the school district, municipal employees and teachers, and seniors. Pursuant to the Proposed Amendments, the affordable housing units may be provided as part of a mixed income project or as stand-alone developments throughout the ROZ. The quality of these developments shall be of the same standards of design, architecture and construction as full market rate units and be designed to be generally indistinguishable from a full market rate development.

A second significant benefit realized under the proposed ROD zoning amendments is the establishment of enforceable Community Benefit Policies. The policies include a Construction Jobs Policy, an Operations Jobs Policy, and a Local Contracting Policy which are discussed below. These policies are required and enforceable through the ROD to ensure job creation for local residents and businesses:

- Construction Jobs Policy: A Construction Jobs Policy sets forth certain requirements regarding hiring and employment for Project Construction Work within the Riverside

Overlay Zone. Contractors working on local ROD Projects agree to comply with terms of the Policy as a condition of site plan approval within the ROD.

- Operations Jobs Policy: An Operations Jobs Policy sets forth certain requirements regarding hiring and employment in the operation ROD Projects. Employers within a local Project must agree to comply with terms of this Policy as a condition of site plan approval within the ROD.

- Local Contracting Policy: A Local Contracting Policy sets forth certain requirements regarding award of contracts related to projects constructed under the ROD. This provision provides for contracting policies both during the construction phase of a project and during the operations phase of a project. Employers agree to comply with terms of this Policy as a condition of site plan approval within the ROD.

The establishment of Community Benefits Polices is a requirement of the Master Developer's Agreement with the Town and compliance with the Policies is regulated under Section 413 and 416 of the Proposed Zoning Amendments (see **Appendix A-1**). To ensure fulfillment of the community benefit goals of the Town, all development within the ROD must comply with the community benefits policies. All of these policies are intended to ensure that proposed redevelopment activities result in direct economic benefits to Study Area residents. For those landowners choosing to opt-into the proposed RO Zoning, no building permit, certificate of occupancy, business license or business license renewal will be issued unless the applicant has demonstrated compliance with the Community Benefit Policies.

In regard to any potential for residential and commercial relocation and/or displacement and impacts on small businesses from the Proposed Action and Theoretical Development Scenario, it is the intended purpose of the Proposed Action to revitalize Riverside, which has been identified as a severely economically distressed community and a blighted area in need of revitalization. If the existing area provides a strong business environment with little or no blight, vacancies or other economic challenges, then there would be no need for revitalization. To the extent that the ROD is optional and does not replace the underlying zoning, certain impacts of development such as potential displacement are possible and could occur over time regardless of the adoption of the ROD. The numerous vacant and boarded-up residential structures that currently exist in the area is testament to this. Providing jobs, tax ratable reinvestment, and safe and secure affordable housing will assist in combatting this issue. The basis for the Proposed Action is well documented in the BOA and RRAP. Entrepreneurship, the success of small businesses, the redevelopment of blighted properties with now vacant buildings, and creation of diverse jobs represent economic reasons for pursuing the ROD's adoption.

While typical redevelopment does have the potential to displace residents and/or businesses, this impact must be weighed and evaluated in relation to the positive effects of revitalizing Riverside, which overall is intended to generate development which introduces significant new residents as a result of housing construction, and employment opportunities generated by new businesses. This redevelopment will create a residential component that is not currently represented in the

local market, yet will greatly contribute to the economic success of local businesses through increased clientele, resultant sales revenue, and opportunities for local employment.

Additionally, the commitment of the Town and the Master Developer to facilitate revitalization of the Riverside Hamlet extends beyond the proposed adoption of the ROD. There are additional socioeconomic benefits, other than those inherent in the revitalization of the community that will occur. The Town and the Master Developer have already identified and pursued a number of additional community-serving programs and facilities may be established under the ROD. Funding for each of these community-serving programs and facilities may be provided by fees from applicants for future development projects within the ROD, as well as from donations, grants or other funding mechanisms and any discretionary funding provided by the Town. These Funds may be administered, at the discretion of the Town, by a local development corporation (LDC) to be established by the Town or other appropriate entity such as a certified local not-for-profit entity. The community-serving programs and facilities include:

- Early/Alternative Education Opportunities: The Master Developer will continue to promote and support the growth of alternative youth-educational-opportunities for the community including but not limited to the existing partnerships with the Children's Museum of the East End, Cornell Cooperative Extension, and Group for the East End.

- Small Business Support: The Master Developer will continue to promote and support the growth of Small Business within the Riverside Overlay Zone, for the establishment or expansion of small businesses that could realize economies of scale from shared services or access to advice, and market & feasibility studies.

- Cultural District: Master Developer shall provide assistance to groups in efforts to establish a cultural district or other initiatives, where public art, cultural initiatives and performing arts could be established. This would include continued support for the WaterFire project currently underway for the community. Assistance will include support in approvals, permitting, advertising, community outreach, fundraising and the like, in support of the community based initiatives supported thorough the Crowd Sourced Placemaking program Riverside Rediscovered.

For each of the community-serving programs and facilities, the Master Developer will assist the Town and community by working collaboratively to (i) identify strategic partners, (ii) develop fund-raising strategies, (iii) identify suggested locations of community serving facilities in the development area, (iv) obtain necessary approvals and permits, and (v) manage facility construction.

The adoption of ROD code and subsequent redevelopment is anticipated to increase property values in the community, both through actual redevelopment of properties and through revitalization of the community as a whole. The ROD code provides incentives for aggregating multiple parcels which will encourage partnerships between the Master Developer and private property owners for redevelopment and thus, interested private property owners will benefit financially from this incentive. The Proposed Action is expected to create an opportunity for any

existing businesses that remain to provide goods and services in keeping with the demand of new patronage. This comes with the potential increase in sales and profit for businesses that adapt to these conditions. Redevelopment/revitalization and resultant activity in the area will increase the local presence and "eyes on the street" – a key benefit of mixed use communities which contributes to the overall safety of the community as a whole. This is a beneficial impact associated with the change in land use and business climate in the Study Area.

12.2.1 Economic Impacts

The Proposed Action is limited to the adoption of the BOA, RRAP and proposed ROD, however, anticipated short-term construction and long-term operational impacts that may be generated by the Theoretical Development Scenario were evaluated. The analysis quantifies the significant economic benefit (both direct and indirect) associated with construction jobs and permanent operational jobs, in addition to output and labor income during both construction and operations.

Key economic impacts[1] are noted, below:

Anticipated Economic Impacts during Construction

- For the purpose of this analysis, it is anticipated that redevelopment efforts will commence in 2016, with construction distributed evenly over a period of 10 years. It is anticipated that the construction of the Theoretical Development Scenario will be complete in 2025.
- The construction period is projected to represent a total of approximately $636.1 million in investment. The $636 million in direct output is projected to generate an indirect impact of over $254.1 million, and an induced impact of over $242.2 million, bringing the total economic impact on output to $1.1 billion during the 10-year long construction period, or the equivalent of $113.2 million per year.
- The Development Scenario is anticipated to generate 3,186 construction jobs in terms of labor years—the unit of work representing the effort of one person in a 12-month period—over the 10-year construction period, an average of 319 jobs per year.
- Development under the ROD will require conformance to the Community Benefits Policies, which will include a Construction Jobs Policy, an Operations Jobs Policy and a Local Contracting Policy which will encourage the use of local labor, and thus it is likely that a significant portion of these construction workers will be hired from within local labor unions in cooperation with the Town.
- The 3,186 jobs created over the course of the construction period will have an indirect impact of 2,011 and an induced impact of 1,750 employees in other industry sectors, bringing the total impact of construction to 682 jobs per year during the 10-year

[1] A direct impact arises from the first round of buying and selling. These direct impacts can be used to identify additional rounds of buying and selling for other sectors of the economy and to identify the impact of spending by local households. An indirect impact refers to the increase in sales of other industry sectors, which include further round-by-round sales. An induced impact accounts for the changes in output and labor income by those employed within the region, resulting from direct and indirect impacts. The total impact is the sum of the direct, indirect and induced impacts.

construction period. This job creation – direct, as well as indirect and induced – is most crucial given Riverside's high levels of unemployment, and presents opportunities for job seekers throughout the region.

- Labor income from the construction jobs are projected to amount to $79,224 per year, per employee. When applied to the 10-year construction period, this represents approximately $252 million in collective earnings. Labor income stemming from the indirect and induced impacts of construction is projected at $89.8 million and $83.6 million, respectively, bringing the total economic impact of the construction to over $425.9 million in labor income.

Anticipated Economic Impacts during Annual Operations

- For the purpose of this analysis, it is assumed that the construction will be phased uniformly over the 10-year long construction period. As soon as each phase of construction is completed, it is assumed that the housing units will be available for lease and the commercial operations open. This process will continue, with impacts increasing incrementally until the development reaches full buildout, as anticipated to occur in 2025. At that point in time, it is assumed that the buildings constructed under the Development Scenario will be operating at near full occupancy, with the majority of its units sold/leased and occupied, and thus the operations outputs described will occur annually upon full buildout.
- The buildings constructed under the Development Scenario are projected to generate over $56.4 million in annual operational revenues. This includes revenue generated through monthly rent for the residential units, annual leases from the commercial space, sales of the townhouse/live-work units, and sales revenues from the commercial space.
- The $56.4 million in direct operational revenues are projected to generate an indirect impact of over $17.0 million.
- The induced impact of building operations alone totals $22.6 million. Added to that is the impact of the expenditures of the new residents, which is quantified only in induced impacts. Residential expenditure impacts add another $142.9 million in output. Induced impacts of operations and occupancy total $165.6 million per year. This additional output is generated through round-by-round sales made by households supported by or living in the development at various merchants in other sectors of the regional economy. These include local retailers, service providers, banks, grocers, restaurants, financial institutions, insurance companies, health and legal services providers, and other establishments in the region.
- The sum of the direct, indirect and induced impacts results in a total economic impact on output of over $239.0 million during annual operations once the project reaches full buildout.
- The anticipated Development Scenario is projected to generate 678 jobs each year during annual operations. These 678 direct employment positions are projected to result in an indirect impact of 117 jobs, and an induced impact of almost 1,200 jobs throughout the region, bringing the total economic impact of employment to 1,971 jobs during annual operations.
- The 1,971 employees are anticipated to earn a total of approximately $88.9 million in collective labor income. This include the direct labor income of $26.1 million each year,

as well as the income of the indirect and induced employment supported by the operations and occupancy.

A summary of key economic findings is provided in **Table 12-9**. This table presents the cumulative impacts of construction over the ten year development period and the impacts of that can be expected on an annual basis once the Theoretical Development Scenario has been completed and operations and occupancy achieved. The methodologies and full derivation of the facts and figures presented in the above summary are fully described in the **Appendix L**.

Table 12-9
SUMMARY OF KEY ECONOMIC FINDINGS

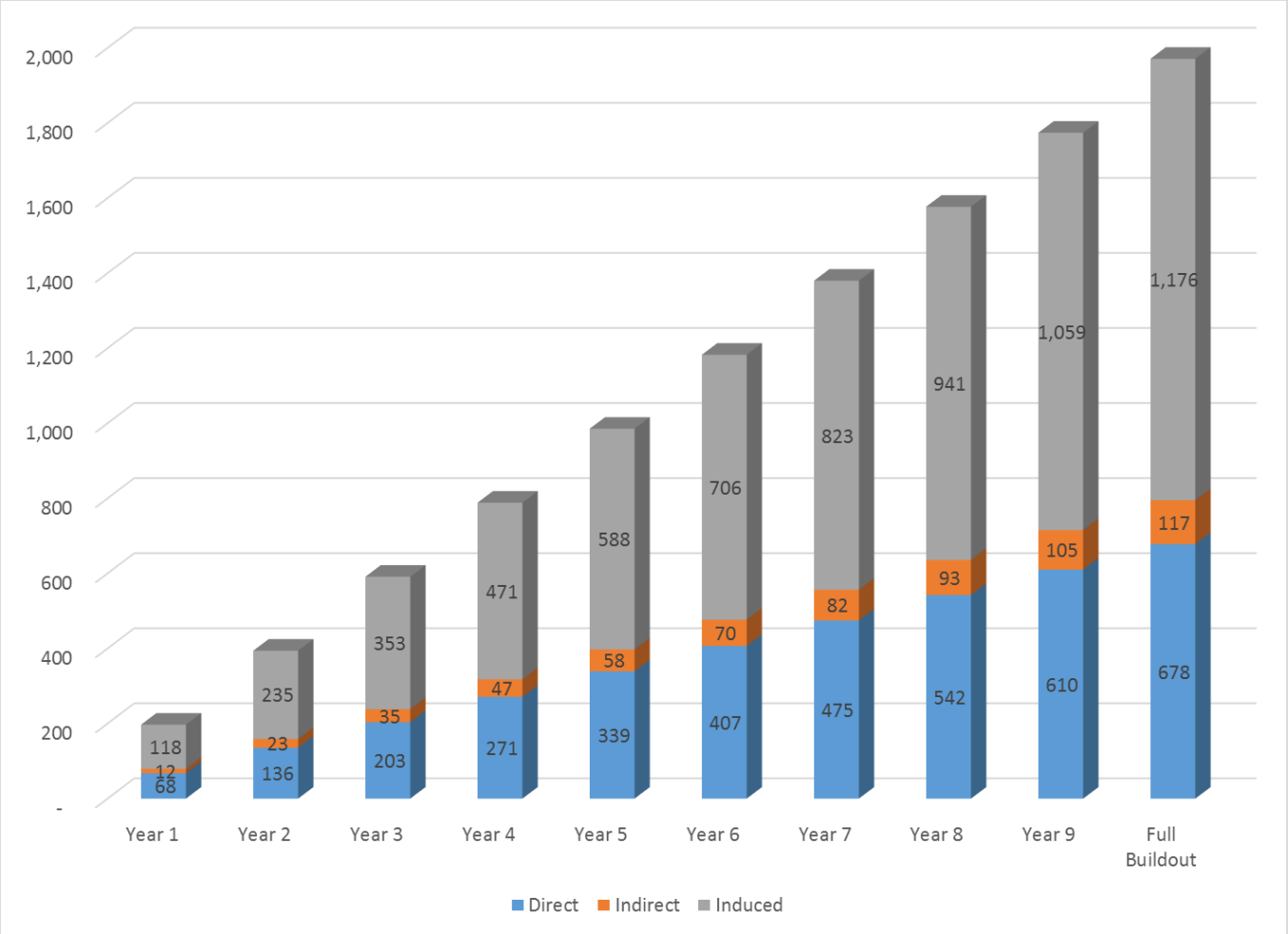
Economic Impact Parameter	Output (Revenue)	Employment (Labor Years)	Labor Income (Wages)
Cumulative Economic Impact of 10-Year Construction Program			
Direct Impact	$636,117,069	3,186.3	$252,436,728
Indirect Impact	$254,111,258	2,011.1	$89,804,389
Induced Impact	$242,159,497	1,749.9	$83,625,024
Total Economic Impact of Construction	$1,132,387,823	6,947.4	$425,866,140
Economic Impact of Annual Operations and Residency under Full Theoretical Development Buildout			
Direct Impact	$56,380,109	678	$26,125,612
Indirect Impact	$17,100,441	117	$5,870,334
Induced Impact	$165,557,358	1,176	$56,937,614
Total Economic Impact of Annual Operations	$239,037,908	1,971	$88,933,560

Source: Urbanomics, Inc., via IMPLAN software.

Given the phasing of operations and occupancy, the impacts will accrue incrementally over time as well. **Charts 12-2** and **12-3** illustrate the incremental change in revenue and job impacts of operations on an annual basis from the first year of occupancy to full buildout.

After the first phase of construction has been completed, the total employment generated by operations and occupation of the commercial and residential space totals 197 jobs in the first year of occupancy. By full buildout, employment supported by the completed development will total 1,971 jobs, including those in industries ranging from maintenance, retail, and business services to health care and hospitality.

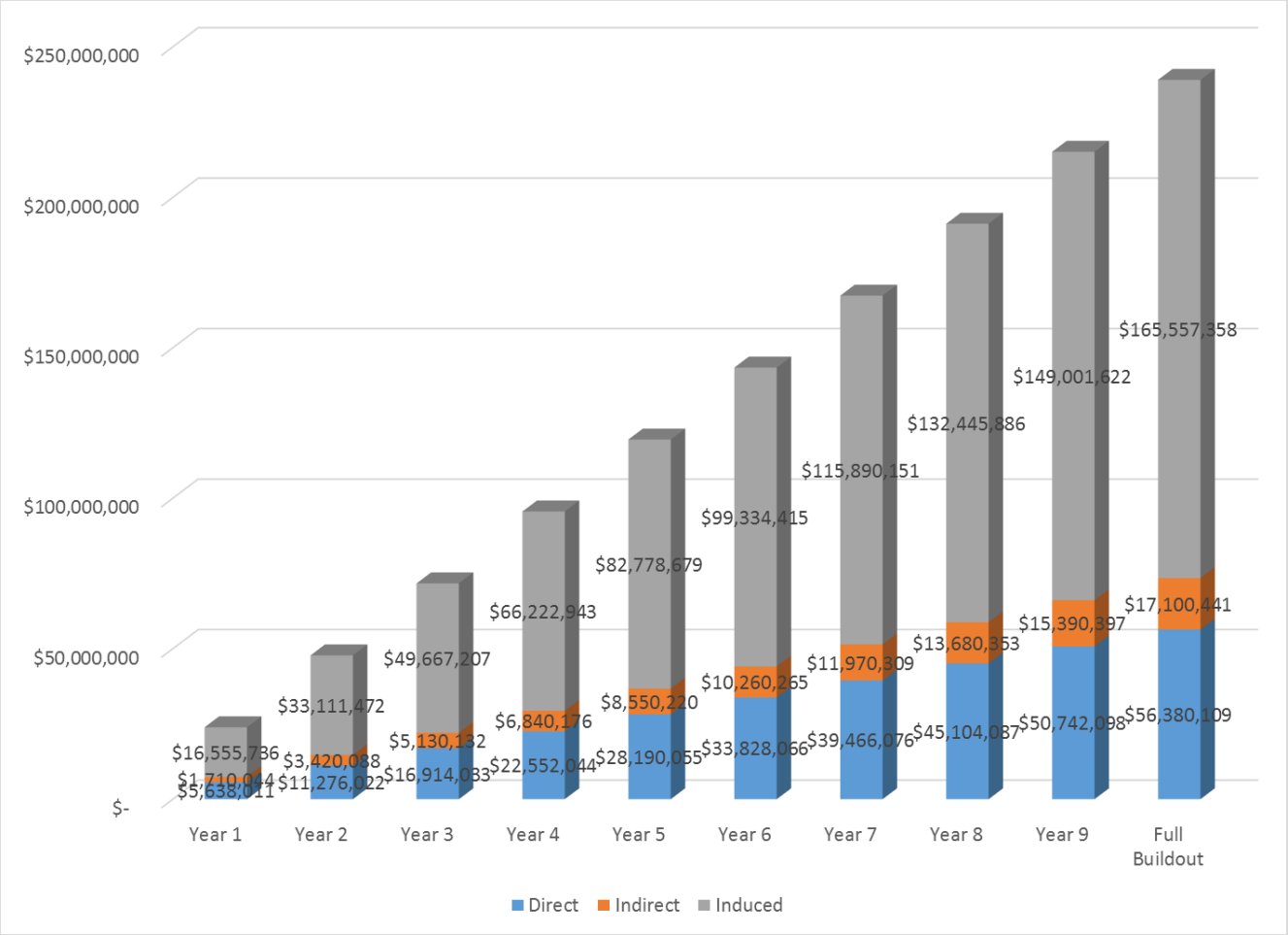
Chart 12-2
JOBS IMPACTS OF OPERATIONS AND OCCUPANCY OF DEVELOPMENT OVER TIME



Source: Urbanomics, Inc., via IMPLAN software.

Revenues from the direct, indirect and induced impacts of occupancy and operations will accrue slowly, with the first phase yielding an output of only $23.9 million. That amount will increase incrementally each year, until reaching a total of $239.0 million in output upon full buildout. The full buildout impacts will accrue to Southampton in this and each year thereafter.

Chart 12-3
OUTPUT (REVENUE) IMPACTS OF OPERATIONS AND OCCUPANCY OF DEVELOPMENT OVER TIME



Source: Urbanomics, Inc, via IMPLAN software.

12.3 Mitigation Measures

- The project will exceed the current Town Code requirements pursuant to Chapter 216 by establishing a requirement that 50 percent of the proposed new dwellings units as Community Benefit Units. Under the Theoretical Development Scenario, which assumes the construction of 2,267 housing units within the Study Area, the ROD would require over 1,100 attainable housing units based on the median income for the Town of Southampton, creating an abundance of opportunities for persons to live in a newly created vibrant, walkable downtown setting.

- Community Benefit Policies associated with adoption of the ROD zoning are intended to ensure that proposed redevelopment activities result in direct benefits to local residents. The proposed ROD requires compliance with the Community Benefit Policies as a condition for

future site plan approvals under the ROD Zones. For those landowners choosing to opt-in to the proposed ROD Zone, no building permit, certificate of occupancy, business license or business license renewal will be issued unless the applicant has demonstrated compliance with the Community Benefit Policies.

- The Town and Master Developer will continue to pursue community-serving programs and facilities within the ROD. Such program includes the early Alternative Education Opportunities, Small Business Support, and Cultural District support.

- The Proposed Action is projected to result in significant beneficial impacts in terms of construction and permanent job creation, as well as beneficial economic ripple effect from these jobs. Accordingly, no adverse economic impacts were identified and no mitigation is warranted.

13.0 OTHER ENVIRONMENTAL IMPACTS

13.1 Unavoidable Adverse Environmental Impacts

The Proposed Action involves area and neighborhood revitalization planning for a 468±-acre portion of the Hamlet of Riverside, oriented along sections of SR 24, Lake Avenue (CR 63), Riverhead-Quogue Road (CR 104), Peconic Avenue (CR 63), Old Quogue Road, and several local streets. If approved, this planning and zoning initiative would result in redevelopment in accordance with the proposed Zoning Map and Zoning Code amendments and the Master Developer Agreement between the Town and the Master Developer as the primary and initial Applicant.

No significant unavoidable area-wide adverse impacts have been identified; the Proposed Action itself is generic in nature and would not directly result in any physical development within the Study Area. The Study Area and Proposed Action have been characterized, the potential adverse impacts have been assessed, and mitigation measures have been described. Some adverse impacts may still exist for which no mitigation is available. The anticipated beneficial and adverse impacts of the Proposed Action have been quantified and discussed in **Sections 3.0 through 12.0**; for those adverse impacts that cannot be quantified, qualitative discussions have been provided.

Nevertheless, this sub-section acknowledges that the following adverse impacts are expected to occur as a result of the Proposed Action:

- The increased residential development associated with the Proposed Action would generate new students for the Riverhead CSD, necessitating increased district expenditures. This impact would be at least partially offset by increased school district tax allocations, due to the increased property tax revenues generated.
- The increased development associated with the Proposed Action will increase the potential need of emergency services (police, fire, and ambulance services), as well as the increased demands on such services. In compensation, it is expected that the increased taxes generated by this new development would offset at least a portion of the costs of service calls, as well as the costs associated with any expanded service capability (e.g., new equipment, additional personnel, improved/expanded facilities, etc.).
- The increased development associated with the Proposed Action would result in increased wastewater generation and solid waste generation, as well as to increase the usage of solid waste services and handling facilities.
- The increased development associated with the Proposed Action would result in an increase in total water consumption, with the potential to necessitate the improvements to the SCWA's distribution system in the area.
- There will be increased demands on the energy services of PSE&G and National Grid, which may entail expansions of these service networks (these impacts to be offset by fees paid by the new development).
- There will be increases in vehicle trips generated on area roadways, which may require mitigation measures, to be determined during the review of each development application.
- Temporary increases in truck traffic will occur during the construction period of each application associated with the Proposed Action. Such activity will be conducted in conformance with Town

requirements for construction hours and traffic management, and may include provisions for parking management and signage to alert and direct construction and commuter traffic.
- There would be temporary increases in the potential for fugitive dust caused by construction activities. Such conditions would be controlled as well as possible with mitigation techniques to be specified in the SWPPP and individual Erosion Control Plans, and may include such measures as soil wetting and temporary stabilization measures at the source.
- Temporary increases in noise will occur during the construction period. Such activity will be conducted in conformance with Town requirements for construction hours and noise management, and may include provisions for remediation activities (as necessary).

The impact analyses presented in **Sections 3.0 through 12.0** indicate that, while some adverse impacts will occur as a result of the Proposed Action, none of these impacts can be considered *significant*, in terms of their geographic extent, magnitude, or duration.

13.2 Irreversible and Irretrievable Commitment of Resources

This subsection is intended to identify those natural and human resources discussed in **Sections 3.0 through 12.0** of this document that will be consumed, converted or made unavailable for future use as a result of the Proposed Action and implementation of the Theoretical Development Scenario. It is noted that the project involves sustainable planning concepts, by situating new development in proximity to an existing transit center, promoting indoor and outdoor water conservation, and providing techniques to mitigate the heat island effect which can exacerbate energy demand during warm spells. Further, design and development will seek to encourage energy-efficient design and development incorporating, in all or part, design and planning standards equivalent to the US Green Buildings Council's LEED® (Leadership in Environmental and Energy Design) standards, though requiring specific accreditation under that standard is not contemplated. Also see **Section 13.4** for additional discussion of energy use and conservation. Nevertheless, the Proposed Action will result in irreversible and irretrievable commitment of resources, as follows:

- Material used for construction, including but not limited to: wood, asphalt, concrete, fiberglass, steel, aluminum, glass, etc.
- Energy used in the construction, operation and maintenance of the Proposed Action, including fossil fuels (i.e., oil and natural gas) and electricity.
- Potable water to be consumed on a daily basis for the operation of the Proposed Action.

13.3 Growth-Inducing, Secondary and Cumulative Impacts

Growth-inducing aspects of development are those characteristics that would cause or promote further development, either due directly to future development under the proposed zoning itself (i.e., "primary" development), or indirectly, as a result of a change in the population, markets or potential for development in that community (i.e., "secondary" development). Direct/primary impacts might include, for example, the creation of a major employment center or institutional facility, installation or extension of infrastructure improvements or the development of a large

residential project, particularly if that project were designed for a specific age group. An indirect/secondary impact would cause an increase in the potential for further development in an area, which in turn would result in direct/primary impacts. Cumulative impacts refer to the combined effects of a number of development proposals in an area, where the impacts of all such proposals are multiplied relative to those of each individual proposal, if considered separately.

By its very nature, the Proposed Action is intended to provide for commercial and residential growth in a portion of Riverside hamlet so that economic development and community revitalization would occur, with the purpose of creating a vibrant and successful mixed-use, form-based, transit-oriented hamlet center that enhances community character, protects area environmental resources, and promotes sustainable economic development. This is exactly the Town's goal for this area, as specified in its Comprehensive Plan Update (see **Section 7.1.3**). According to the Update, a major hamlet center similar to but smaller than the village/town centers, with shopping centers and retail corridors, should be created in Riverside by use of the Planned Development District (PDD) zoning mechanism. The Proposed Action would achieve this goal, though not by use of the PDD concept, but by use of the Form-Based Code technique. Other general recommendations of the Update that apply to the Proposed Action and would support other growth in the hamlet include:

- Combine convenience, destination, and specialty shopping, and therefore serve larger portions of the Town.
- Promote streetscape improvements unique to each hamlet/village center's themes and assets, through zoning guidelines, PDD guidelines, design guidelines, Capital Improvement Projects (CIP), etc.
- Focus landscape and other improvements on critical vistas which shape the image of hamlet/village centers.
- Retain or promote train stations, bus and jitney stops, beach shuttles, and other public transportation elements in the hamlet/village centers.
- Carefully consider how arterial access to hamlet/village centers can be improved without compromising on-street parking, the tranquility of adjoining neighborhoods, and pedestrian ambiance.
- Provide parking waiver fees in order to keep pace with inflation.
- Pursue on-street parking, sidewalk extensions, pedestrian-oriented lighting, street trees, traffic lights, and consistent building setbacks so as to create a pedestrian ambiance in hamlet/village centers.
- Target hamlet/village centers for TDR, PDD, MX zoning, and infill zoning so as to promote concentration of uses in these centers.
- Target hamlet/village centers for civic and Town facilities and amenities, including "greens" and pocket parks.

The Proposed Action would also have secondary effects on growth. The new development would then encourage the establishment of additional, complementary development to a downtown setting within walking distance of public transportation, and thereby provide for beneficial economic growth and investment in an existing downtown setting that the Town acknowledges is in need of revitalization. It is anticipated that the Proposed Action would contribute to an increase in activity for the existing local businesses from the increased customer

bases arising from the increased number of residents. The new employment opportunities associated with the office and commercial spaces will be substantial, with associated beneficial economic and fiscal implications.

Development of the various commercial businesses permitted by the Proposed Action and contemplated by Theoretical Development Scenario will expand local employment, reinforcing the existing shopping, office and business uses of the area. As discussed in **Section 12.2**, permanent jobs will be generated by the Proposed Action. Such employment would also reinforce the commercial character of the Study Area, as desired by the Town and community.

Construction of the Proposed Action will create a significant number of FTE construction jobs (both direct and indirect), which would last multiple years. These jobs may be filled first from within the local labor pool. These job opportunities would not require relocation of specialized labor forces or influx of large businesses from outside the area to provide construction support. As a result, construction job-related effects of the Proposed Action are expected to be beneficial and significant, though temporary in duration.

Development associated with the Proposed Action will result in an increased usage of utilities. Electrical and natural gas services are generally available throughout Long Island (and are presently available in Riverside), and water mains are located within area roadways. The Town and utility services providers will identify the necessary public improvements required to service the Proposed Action as well as any future growth that may occur as a result of the Proposed Action. Therefore, significant expansions of these utilities beyond what is planned for project-related redevelopment are not expected, though lesser improvements (e.g., individual service connections) are expected.

As noted above, cumulative impacts consider the impacts of other projects in the area whose impacts, in conjunction with those of the Proposed Action, may cumulatively result in impacts that are significantly greater than the individual impacts that would occur from each project separately.

As advised by the Town, the following proposed planned projects in the adjacent Town of Riverhead are considered below to assess cumulative impacts (see **Appendix K**):

- A 48-unit apartment development on the south side of West Main Street just west of Peconic Avenue
- A mixed-use development on the south side of East Main Street just east of Roanoke Avenue, consisting of apartments and retail space

The following briefly describes and discusses potential cumulative impacts.

- As each of the cumulative projects would change the use and appearance of their sites, there will be a cumulative impact on the visual resources and character of the community. However, the area is already significantly developed with uses having types similar to those of these proposals. New uses are anticipated to occupy buildings that would conform to height, bulk and setback requirements of their respective zonings. Therefore, the Town Planning Board and ZBA will be responsible to

determine the degree of conformance of the Proposed Action to the recommendations of the Town Comprehensive Plan Update, the land use patterns, community character, and other potential impacts, considering both existing area conditions and the additional planned projects in determining whether to grant the variances requested by the Proposed Action. As a result, development of these sites would conform to established Town use requirements, minimizing the potential for adverse visual impacts.

- The increased residential development would generate new students for the Riverhead CSD, necessitating increased district expenditures. This impact would be offset by additional school district tax revenues.
- The increased development possible under the Proposed Action and Theoretical Development Scenario will increase the potential need of emergency services (police, fire, and ambulance services), as well as the increased demands on such services. In compensation, it is expected that the additional taxes generated by this new development would offset at least a portion of the costs of service calls, as well as the costs associated with any expanded service capability (e.g., new equipment, additional personnel, improved/expanded facilities, etc.).
- The increased development would also result in increased wastewater generation and solid waste generation, with consequent requirements to increase solid waste services and handling facilities. Sewage treatment facilities, however, will be utilized for wastewater disposal to ensure an adequate level of protection of groundwater and surface water resources.
- The increased development would result in an increase in total water consumption, with the potential to necessitate the improvement of the SCWA's distribution system in the area.
- There will be increased demands on the energy services of PSE&G and National Grid, which may entail expansions of these service networks (these impacts to be offset by fees paid by the new development). These energy service providers have been involved in initial stages of planning for re-development and will be contacted as development proceeds.
- The TIS evaluated traffic generated from the Proposed Action as well as the two other planned projects. Therefore, the TIS analysis provides a cumulative assessment of potential impacts to transportation resources. That analysis did not identify any significant adverse cumulative impacts to traffic conditions or resources.
- With respect to parking (and addressing only that component associated with non-residential development), it is expected that sufficient parking for each development application would be provided either on-site, on-street or in nearby public lots or parking garages, as required by the Town Planning Board during the Site Plan review process.
- Temporary increases in the potential for fugitive dust caused by construction activities. Such conditions would be temporary and controlled with mitigation techniques to be specified in the SWPPP prepared for each development project, and may include soil wetting and temporary stabilization measures at the source.
- Temporary increases in noise will occur during the construction period of each application. Such activity will be conducted in conformance with Town requirements for construction hours and noise management, and may include provisions for remediation activities (as necessary).

In general, while some impacts are anticipated from these projects, based on the forgoing considerations, it is the applicant's opinion that impacts would not cumulatively be significant. Ultimately the involved agencies will review each application on its own merits, will weigh the potential cumulative impacts outlined herein, and will render a decision on the significance of impacts and appropriateness of each project.

13.4 Energy Use and Conservation, and Greenhouse Gas Emissions

13.4.1 Energy Use and Conservation

An increase in the consumption of energy resources would typically be expected from an increase in development in the Study Area. Green development features of the Proposed Action are outlined in **Section 2**. In general, the buildings associated with the Proposed Action will be constructed in conformance with New York State and Town Code requirements and standards, which would minimize energy use including the "Sustainable Development Standards outlined in Section 410 J of the Proposed Zoning Amendments included in **Appendix A** of this document. It is expected that new construction encouraged by the Proposed Action and possible under the Theoretical Development Scenario will utilize up-to-date, energy-efficient building materials (e.g., insulation, windows, weather stripping, door seals, etc.) and mechanical systems (e.g., air conditioners, heating systems, HVAC systems, water heaters, heat pumps, etc.), which would minimize the amount of energy resources required. Incorporation of such measures is not only required by New York State, but is a sensible building practice, particularly in light of the increasing cost of energy resources. Additionally, funding for Microgrid implementation will be encouraged to be sought for the implementation of additional energy resiliency measures. Water-saving plumbing fixtures can be specified, in accordance with current building requirements and practices of the trade. Installation of low-flow toilets, showers, sinks and equipment would reduce unnecessary water loss, which would translate into conservation of the energy resources required to heat some of this water. Baseline potable water use reduction is mandated by the proposed Action.

The following general energy-conserving measures are expected to be incorporated in the new construction:

- Utilize energy-efficient and cleaner-burning natural gas systems; consider alternative heating/cooling methods including geothermal, heat pumps and/or solar roof systems.
- Reduce energy consumption through use of superior building insulation materials (i.e., insulations, windows, weather stripping, door seals, etc.).
- Utilize water-saving devices such as low-flow toilets, automatic faucet shut-offs and related equipment would to reduce unnecessary water loss and resultant pumping energy loss.
- Utilize energy-efficient low wattage bulbs for facility exterior illumination and interior lighting wherever possible.
- Incentive-based use of "green development" options such as green roofs, grey-water and rainwater recycling, roof gardens, community gardens, etc.

There will be an increase in energy use during the construction phase of the Proposed Action. These impacts are expected to be of short duration, and the long-term energy demand in the Study Area is expected to remain stable or decline as more energy-efficient development is constructed. In summary, it is not anticipated that the project will result in significant adverse impacts on the availability of energy resources in the Study Area.

Future development under the proposed zoning will necessitate the use of electricity and natural gas for its heating, cooling, and energy needs. This will require the delivery of electricity from

PSE&G LI which services the area, as well connection to National Grid gas pipelines. An increase in the consumption of energy resources would typically be expected from an increase in development, as represented by the Proposed Action and Theoretical Development Scenario.
The Proposed Action seeks to encourage energy-efficient design and development by incorporating certain contemporary energy conservation planning and design standards that are consistent, in all or part, with the US Green Buildings Council's LEED® standards, though requiring specific accreditation under that standard is not contemplated. One example is the Proposed Action's call for solar reflectance standards for building roofs constructed under the Proposed Action to mitigate the potential impacts of the "heat island effect." The heat island effect can be defined as a thermal gradient (i.e., a temperature difference) that exists between developed and undeveloped areas due to the presence of buildings, concrete and pavement which can absorb and radiate heat during the summer rather than reflect it, and thereby raising local temperatures. The problem with this phenomenon is that the increase in temperature can adversely affect a community by increasing summertime peak energy demand, air cooling costs, air pollution and greenhouse gas emissions, heat-related illness and mortality, and thermal water quality impacts from runoff that is heated as it flows over hot surfaces.

In order to avoid or mitigate these concerns, the proposed development standards include the following techniques for addressing the heat island effect.

a) Heat island reduction shall be achieved through any combination of the following strategies for 50% of the non-roof site hardscape (including sidewalks, courtyards, parking lots, parking structures, and driveways), with exception of a Civic Space approved as a Piazza:

   - Provide shade from open structures such as those supporting solar photovoltaic panels, canopied walkways, and pergolas;
   - Have open grid pavement system (at least 50% pervious); and
   - Provide shade from tree canopy (within five years of landscape installation).

b) Use roofing materials that have a Solar Reflectance Index (SRI) value equal to or greater than the values in the table below for a minimum of 75% of the roof area surface of all new buildings within the project; or install a vegetated ("green") roof for at least 50% of the roof area of all new buildings within the project. Combinations of SRI compliant and vegetated roof can be used provided that they collectively cover 75% of the roof area of all new buildings.

Table 13-1 provides the SRI values to be employed under Subsection "b)" above:

Table 13-1
SOLAR REFLECTANCE BY ROOF TYPE AND ROOF PITCH

Roof Type	**Slope**	**Solar Reflectance Index** (SRI)
Low-Sloped Roof	≤ 2 : 12	78
Steep-Sloped Roof	> 2 : 12	29

The SRI values shown in the above are consistent with LEED® Neighborhood Development (ND) standards. The retention of trees as intended by the Town's APOD and CPBOD will also help to provide shade, mitigate the heat island impacts and lower cooling loads in the summer.

The buildings will be constructed in conformance with New York State and Town Code standards, which will further minimize energy use, especially in consideration of the older less efficient buildings to be removed. It is expected that the Proposed Action will utilize modern energy-efficient building materials (e.g., insulation, windows, weather stripping, door seals, lighting systems, etc.) and mechanical systems (e.g., air conditioners, heating systems, HVAC systems, water heaters, heat pumps, etc.), which would minimize the amount of energy resources required. Incorporation of such measures is not only required by New York State, but is a sensible building practice, particularly in light of the increasing cost of energy resources.

In addition to the above specific energy-conserving measures, the general energy-conserving aspects of the Proposed Action and Theoretical Development Scenario include:

- Development that incorporates sustainable planning practices by situating the highest and densest development as close as possible to existing transit facilities (Riverhead Station, Suffolk County bus stops), proposed code requirements for bicycle parking and facilities, and encouraging pedestrian activity to create an environment that is conducive to reducing the need for vehicular trips;
- Design and development guidelines that seek to encourage energy efficient design and enhance the pedestrian environment and experience by providing safe, efficient, comfortable, aesthetically pleasing and interesting streetscapes;
- The mixed-use concept will provide residents with a range of employment opportunities, essential goods and services, access to parks and recreational facilities within the immediate area, as well as access to mass transit.

There will be an increase in energy use during the construction phase of the Proposed Action and Theoretical Development Scenario. However, it is not anticipated that the project will result in significant adverse impacts on the availability of energy resources in the Study Area.

13.4.2 Greenhouse Gas Emissions

Energy generation and usage to serve the development associated with the Proposed Action is expected. Related to this is the generation of gaseous emissions from power sources and from the buildings to be built in redevelopment areas (the impacts from vehicle emissions associated with the Proposed Action are assessed in **Section 11.2.1**). These emissions are a scientifically well-established contributor to global climate change through a mechanism known as "the greenhouse effect", and so are termed "greenhouse gases". The following description and discussion of greenhouse gasses ("GHG") is taken from the document, *"Guide to Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements"* (NYSDEC, July 15, 2009).

Global climate change is emerging as one of the most important environmental challenges of our time. There is scientific consensus that human activity is increasing the concentration of GHGs in the atmosphere and that this, in turn, is leading to serious climate changes. Climate change will continue to adversely affect the environment and natural resources of New York State, the nation, and the world.

There are six main GHGs: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Evaluation of the emissions of each of these GHGs could potentially be included in the scope of an EIS.

Emissions of CO_2 account for an estimated 89% of the total annual GHG emissions in New York State. The overwhelming majority of these emissions - estimated at 250 million tons of CO_2 equivalent per year - result from fuel combustion. Overall, fuel combustion accounts for approximately 89% of total GHG emissions. (N_2O and CH_4 also result from fuel combustion.) Additional GHG sources include electricity distribution (SF_6); refrigerant substitutes (HFCs); the management of municipal waste, municipal wastewater, and agriculture (CH_4 & N_2O); natural gas leakage (CH_4); and others.

SEQRA requires that lead agencies identify and assess adverse environmental impacts, and then mitigate or reduce such impacts to the extent they are found to be significant. Consistent with this requirement, SEQRA can be used to identify and assess climate change impacts, as well as the steps to minimize the emissions of GHGs that cause climate change. Many measures that will minimize emissions of GHGs will also advance other long-established State policy goals, such as energy efficiency and conservation; the use of renewable energy technologies; waste reduction and recycling; and smart and sustainable economic growth. This policy is not the only state policy or initiative to promote these goals; instead, it furthers these goals by providing for consideration of energy conservation and GHG emissions within EIS reviews.

In general, it is critical that new development proposals consider designs and practices that reduce emission of greenhouse gases. Greenhouse gas emissions result from combustion of fossil fuels, including direct/indirect emissions and stationary/mobile sources. The Proposed Action will increase the amount of development in the area; however, the design, construction and operation of this new development will have the potential to incorporate measures to minimize the expected increase in overall generation of greenhouse gases. In addition to the measures listed in **Section 11.3**, the following measures could be considered, where practicable, to ensure reduction of such emissions:

- Use of construction materials that minimize the consumption of fossil fuel consumption in their manufacture.
- Use of up-to-date mechanical systems that are highly energy-efficient in their operation.
- Encouraging the generation and usage of alternative energy.
- Reduce automobile dependence by instituting measures such as: locating development in proximity to public transit facilities and routes, providing bicycle lanes and parking facilities, revising public bus transit routes to service the Study Area.
- Utilize building materials and landscaping to reduce summer heat buildup that will reduce summer cooling needs.

Instituting the measures listed above will assure that development associated with the Proposed Action will conserve energy resources. Such practices would also reduce the generation of greenhouse gases, which would in turn have region-wide beneficial impacts.

13.5 Construction-Related Impacts

The development program as outlined in **Section 2.0** will involve construction of individual sites. Construction will occur with or without the Proposed Action; however, it is recognized that the zoning amendments are being advanced in order to stimulate beneficial redevelopment and revitalization of Riverside. The pace of construction is expected to increase as a result of the Proposed Action. This is a planned and desired result of the Proposed Action as sites are assembled and new development is conceived and implemented.

It is noted that construction is a short-term, temporary impact; however, the magnitude of redevelopment that is expected to occur over the study period of ten years does warrant more detailed consideration of potential impacts and mitigation. Construction is expected to cause localized inconvenience and increased activity proximate to construction sites. Further, construction impacts from multiple sites may combine to increase the inconvenience and level of activity. These factors can be managed and will be controlled through Town review and regulations.

Construction vehicles and equipment will access each development site via construction entrances off bordering roadways. Impacts to the area related to truck traffic (e.g., noise and dust) would be limited in duration and restricted geographically to these roadways, but primarily to NYS 24, CR 63, CR 104 and CR 105, as these roadways would be the primary routes used by these vehicles. These roadways have sufficient capacity to accommodate these vehicles, so that no significant impact on traffic flow is expected. Demolition, site preparation and construction on individual sites will begin as the required site plan approvals and permits are obtained and essential capital infrastructure is put into place. The duration of construction for individual sites and blocks will vary depending on the type and scale of development/building construction proposed and the associated capital infrastructure and site improvements required. Typical construction timeframes for site plans are anticipated to be on the order of 12 to 36 months per site depending on project magnitude. Some redevelopment by other private land owners will occur according to market conditions, available funding and personal need and decision-making. Most growth in the Study Area is expected to occur over a 10-year window. Applications could conceivably be submitted for review in 2016 with approvals by fall of 2016; however sewer infrastructure would first have to be in place, thereby delaying actual groundbreaking for approximately two or more years.

Demolition- and Remediation-Related Considerations

There are many commercial sites within the Study Area that may currently or may historically have stored or utilize hazardous substances (as defined by the NY Environmental Conservation Law § 27-0901). Examples of such uses include gas stations, auto repair, certain manufacturing,

etc. Storage and use of toxic and hazardous materials can present a potential hazard to human health or the environment when improperly treated, stored, transported, disposed or otherwise managed. Given the age and historic use of many of properties within the Study Area, preparation of a Phase I Environmental Site Assessment ("ESA") is recommended to identify areas of RECs prior to initiation of demolition or redevelopment activities.

The geographic extent of impacts during construction would depend upon the location of a specific project, the scale of the project, and specifics of the particular project design (including but not limited to: building height, bulk, parking facilities, length of construction schedule, etc.). Generally, the larger the project, the larger the area of potential impact. The scale and nature of each project would also contribute to the spatial extent and duration of potential impacts related to street closings, areas needed for worker parking, material storage and staging areas, etc.

All building construction including redevelopment is regulated under Town Code, which requires building permits and oversight by the Building Department. The building permit process provides for conformance with building code requirements, and special provisions as needed to ensure that building occurs in a manner that causes the least disruption possible. It is expected that the Town may require site-specific construction management plans for construction activities on a case-by-case basis as each site-specific development proposal is proposed and reviewed. Such mitigation plans would take into account any other known or planned construction that could combine to increase the area of influence and therefore require special construction management considerations. The level and type of construction management plan would be determined during the site plan review process, and would be included as a condition of each building permit, to be administered and monitored by the Town Building Department.

Site redevelopment may cause erosion and sedimentation that could potentially impact the surrounding area. The Study Area is characterized by relatively flat topography, and the block-type setting would tend to limit potential impacts to localized areas, immediately adjoining properties and roads. The potential for this impact occurs only during periods when soils on a site are exposed and/or placed in such a way that rainfall could cause sediment transport. Therefore, the potential for this impact is short-term for each construction site. SPDES requirements under NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP 0-15-002) will be adhered to for stormwater permits as administered by the Town Code. For those sites where such measures are required, the filing of a Notice of Intent, erosion and sedimentation control plans, SWPPP, site construction monitoring and a Notice of Termination once complete, would ensure that potential impacts from stormwater are properly managed. Erosion and sedimentation control measures can be required and implemented at construction sites where there is a concern with respect to erosion, and would be specified on a case-by-case basis for each site-specific application. This potential impact is legitimately considered a short-term impact that can be controlled through measures outlined herein.

Related to erosion and sedimentation is the potential for generation of fugitive dust. Demolition, excavation and grading activities may cause fugitive dust to be raised from construction sites.

Potential fugitive dust would only be generated during hours when construction activity occurs, which, is regulated by Town Code. As a result, potential for dust generation would only occur during these hours. The most appropriate management techniques involve use of water spray to control dust, and avoidance of dust-generating activities during periods of excessively high winds. This type of impact is limited in duration to the time when activities are conducted that could generate dust, and therefore is legitimately considered a short-term potential impact that can be managed.

Site redevelopment may cause potential for noise impacts as a result of equipment operation, demolition and increase activity levels. The Town Code limits hours of construction activity as well as nuisance noise levels. As result, noise impacts would only have the potential to occur during limited daytime hours when the potential for impacts would be least, except for sites where there may be sensitive receptors[1]. Noise generating activity would not be expected to occur on weekends; therefore potential impact to religious activities would be minimized during periods of worship and services. Noise generating activity which occurs proximate to uses identified as sensitive may require further considerations to limit potential impacts. The potential for noise proximate to sensitive receptors will be addressed as part of a site-specific construction management plan. Further, noise-generating activities are short-term impacts that would be limited to period of demolition, excavation and potentially during erection of external building components. Once buildings are enclosed and interior work commences, the potential for such noise impacts at a given site would be reduced or eliminated. Consequently, this potential impact can be limited and managed through existing Town Code requirements and is considered a temporary impact.

There is a potential for impact on traffic movements in the area during construction activities due to deliveries of building materials, construction worker arrivals/departures, etc. These impacts would be managed under the building permit issued, and by the terms of a Construction Traffic Management Plan, which may specify routes that would reduce impacts to roadways, options for the redirection of traffic at times or locations of particularly intense construction traffic, coordination of traffic measures with other adjacent or nearby construction sites, and staging of construction activities within the site to avoid activity on public streets as much as possible. Impact on traffic movements would be temporary and related to specific activities occurring on a given construction site at a given period in the construction. While temporary inconveniences are expected, traffic impacts can be controlled and minimized through management plans.

There is potential for damage to Town, State and/or Suffolk County roads and streets during construction due to truck traffic, equipment movements, etc. Such damage will be repaired by each site-specific applicant as a part of their respective conditions of site plan approval. Such repairs would be conducted under a construction bond established by the applicant, which is a routine matter that is administered by the Building Department.

[1] Sensitive noise receptors could include schools, hospitals, housing sites and related uses.

14.0 ALTERNATIVES

SEQRA and its implementing regulations at 6 NYCRR Part 617.9(b)(5)(iii)(v) require an examination of reasonable project alternatives that are consistent with the objectives and capabilities of the project sponsor. This phase of environmental review provides the context and framework for identifying, comparing and contrasting feasible project alternatives and plays a critical role in project planning and the identification of impacts and mitigation strategies. Alternatives investigations provide a broader foundation for informed decision-making by the Lead Agency and other involved agencies and can include a wide range of project modifications or permutations. Alternatives may involve different project sites; changes in project size, scale, and/or density; proposals for different land uses or land use intensities; variations in design; alternative alignments and orientations; use of different technologies or methodologies; adjustments to project timeframes and phasing, or other appropriate changes.

SEQRA specifically requires a comparative assessment of what it refers to as the "No Action alternative." The No Action alternative serves as the basis for characterizing and evaluating anticipated site changes and the possible impacts and benefits that are likely to result in the reasonably foreseeable future in the absence of the proposed action or any other actions. Finally, SEQRA requires that the discussions and analyses of alternatives be conducted at a level of detail that is sufficient to allow for the comparison of project benefits and impacts by the Lead Agency and all involved decision-making entities. This Draft GEIS considers the following alternatives:

Alternative 1: No-Action
Alternative 2: Development under Existing Zoning
Alternative 3: Sewage Treatment Plant Options

Tables 14-1 presents the various quantities and impacts associated with the No Action alternative relative to Theoretical Development Scenario with remaining existing uses.

14.1 Alternative 1: No Action

The No Action alternative assesses the potential conditions, impacts and benefits likely to occur if the subject action (adoption of the Proposed Zoning Amendments and BOA Nomination Step II Study and Implementation of the Theoretical Development Scenario) is not effectuated. Current conditions, therefore, include existing land uses, zoning, development patterns and infrastructure that is currently in place. Under this scenario, current land use, environmental, social and economic conditions would be expected to remain the same and the potential impacts and many benefits of the Proposed Action would not come to pass. **Table 14-1** provides a summary of existing conditions and conditions after implementation of the Theoretical Development Scenario plus all existing development that would remain.

Table 14-1
SITE & DEVELOPMENT CHARACTERISTICS & IMPACTS
NO ACTION ALTERNATIVE (ALTERNATIVE 1) VERSUS THEORETICAL DEVELOPMENT SCENARIO WITH EXISTING REMAINING DEVELOPMENT

Parameter	Existing Condition/ No Action (Study Area)	Theoretical Development Scenario Plus Existing Remaining Development (Study Area)	Difference (Study Area)
Coverages	**Acres**	**Acres**	**Acres**
Impervious	116.13	164.53	+48.4
Landscaped	167.31	164.02	-3.29
Unvegetated/bare ground	22.67	9.97	-12.7
Wooded	141.85	109.45	-32.4
Wetlands	19.60	19.60	0
Total Study Area	**467.56**	**467.56**	**N/A**
Land Uses	**SF**	**SF**	**SF**
Residential	---	---	---
Mobile Homes	449	449	-
Single Family Homes	395	317	-78
Studio Apartments	0	226	+226
One-Bedroom Apartments	0	1,134	+1,134
Two-Bedroom Apartments	0	907	+907
Total Study Area	**844**	**3,033**	**+2,189**
Business	---	---	---
Commercial	188,680	200,194	+11,514
Restaurant	14,025	13,352	-673
Wet Retail	6,588	13,352	+6,764
Professional Office	0	37,000	+37,000
Medical Office	0	25,000	+25,000
Hotel	30,226 (81 rooms)	88,420 (103 rooms)	+58,194 (+22)
Total Study Area	**239,519**	**377,318**	**+137,799**
Other	---	---	---
Cultural/Institutional (excluding school)	27,081	20,178	-6,903
School	71,632	71,632	0
Adult Care/Nursing Home	0	63,910 (114 units)	+63,910 (+114 units)
Artisan Lofts/Production	0	30,900	+30,900
Indoor Ice Skating/Hockey Rink	0	100,000	100,000
Total	**98,713**	**286,620**	**187,907**
Water Resources:	**GPD**	**GPD**	**GPD**
Domestic Use (gpd) [(1)]	216,146	709,066	+492,920
Irrigation (gpd)	99,570	22,982	-76,588
Total Study Area	**315,716**	**732,048**	**+416,332**

Parameter	Existing Condition/ No Action (Study Area)	Theoretical Development Scenario Plus Existing Remaining Development (Study Area)	Difference (Study Area)
Miscellaneous:	---	---	---
Residents [2]	2,107	3,899	+1,792
School-Age Children (5-17 years) [3]	361	594	+233
Total Taxes Generated ($/year) [4]	$2,268,592	$12,599,629	+$10,331,037
School Taxes ($/year) [4]	$1,722,201	$9,753,728	+$8,031,527
Solid Waste Generation (lbs/day) [5]	4.72	10.37 tons/day	+5.65

1 Assuming SCDHS design flow rates for wastewater systems: 100 gpd/room for hotel, 0.10 gpd/SF for medical office, 0.03 gpd/SF for retail or dry commercial space, 30 gpd/seat for restaurant, 150 gpd/unit for apartments, 0.04 gpd/SF for artist production space, and 0.06 gpd/SF for office space.

2 Assuming 1.64 residents/multifamily residential unit, 2.30 residents/two-bedroom townhome, 0.4 residents/age restricted unit, 3.06 residents/three-bedroom single-family home, two persons per two- bedroom mobile home.

3 Assuming 0.10 school-age children/studio or one bedroom apartment, 0.16 school-age children/two-bedroom apartment, 0.51 school-age children/two-bedroom townhome, 0.64 school-age children/three-bedroom home, 0.24 school-age children/two-bedroom mobile home.

4 See **Section 12.2** and **Appendix L**.

5 Assuming 0.13 lbs/day/SF of retail space, 0.09 lbs/day/SF for restaurant space, 0.01 lbs/day/SF for office space, 0.01 lbs/day/SF for medical office space, 1.5 lbs/room/day for hotel rooms, 0.09 lbs/day/SF for catering/conference space, 4 lbs/day/resident for apartments, 0.012 lbs/day/SF for industrial space, and 0.0012 lbs/day/SF for artists production space (Salvato, 2009).

Based on a review of the information available in this Draft GEIS and the Brownfield Opportunity Areas (BOA) Step II Nomination Study, the following impacts and benefits would be expected if the Proposed Action is not implemented.

Impacts from No Action Alternative

- The Town would not implement the recommendations, nor fulfill the many goals of past land use planning studies and community visioning exercises.
- The pattern of haphazard and ineffective development that currently exists in Riverside would remain unchanged and development would be governed by conventional zoning rather than form-based zoning which is more appropriate for meeting Town goals.
- The No Action alternative would do nothing to address any of the critically important social and economic problems that currently affect the Riverside community.
- The existing blight would remain and improvements in the visual quality of the built environment through the implementation of design standards would not occur.
- The existing condition would not provide the types and numbers of housing opportunities needed to serve the public, including studio, one- and two-bedroom rental apartments and affordable workforce housing for emergency responders, teachers, seniors, single moms and young adults that is necessary to promote sustainable growth, enhanced housing opportunities and community health.

- The status quo condition would not generate the many temporary construction jobs (work occurring over roughly a 10 year period) and subsequent full- and part-time employment opportunities anticipated as a result of the implementation of the proposed ROD.
- New business development would not be promoted to the extent anticipated by the Proposed Action and the type and level of mixed-use development that is necessary to create a sustainable community and the renaissance of the Hamlet of Riverside would not occur.
- The existing condition would not provide the tax revenues that the Proposed Action would to support and sustain efficient and effective community service delivery.
- The existing cesspools and septic systems with minimal treatment capabilities on substandard sized lots being operated in the area would remain in use.
- The sites identified as raising "environmental concern" in the area that would be cleaned up under the Proposed Action, would not be cleaned up and upgraded to the extent likely under the Proposed Action.
- The area may not get the needed traffic improvements at the traffic circle and the enhanced street connectivity and pedestrian and bicycle friendly atmosphere envisioned by the Proposed Action.
- Requirements for dedicated open spaces (plazas, courtyards, pocket parks, green areas, etc. envisioned by the ROD) on redevelopment sites would not be in place.
- The prospective regional hockey rink would likely not be established.
- Standards for water conservation and energy conservation outlined in the Proposed Action would not be implemented.
- There would be a total of $10,331,037 less in tax revenues generated in the community.
- There would be a total of $8,031,527 less in school revenues generated in the community.
- The opportunity for the community to come together to rebuild as it sees necessary would not be instituted.

<u>Benefits of No Action Alternative</u>

- The No Action alternative would not increase traffic.
- The No Action alternative would not consume as much water (416,332 gpd less) or generate as much wastewater and stormwater as the Proposed Action, Theoretical Development Scenario, and remaining development would.
- Additional clearing and disturbance to wildlife habitat would not be necessary.
- An additional 233 children would not be added to the public school system.
- Additional solid waste would not be generated.
- There would be 48.4 acres less impervious surface.
- 32.4 acres of woodlands would not be cleared.
- An additional 5.65 tons/day of solid waste would not be generated

14.2 Alternative 2: Development Under Existing Zoning

A buildout analysis is provided in the RRAP which evaluates future buildout in the shaded portion of the Study Area shown in the image to the right. This area excludes the currently built-out single-family residential neighborhoods to the south, east, west, and northwest, the elementary school property, and State and Town protected lands. This buildout estimate was based on the hypothetical assumption that all lots within the shaded area were cleared of existing buildings and structures and developed or redeveloped to a build-out condition under existing zoning. The assumptions and factors in the buildout projection are described below.

Zoning Analysis Study Area

Dimensional Regulations

Dimensional regulations restrict the mass and bulk of development. Setbacks prevent buildings from encroaching on lot lines and make space between uses. Restrictions on the number of stories and heights of buildings control physical form, bulk, massing, and character, as well as overall density. Similarly, lot coverage restrictions address density, bulk, massing and spacing of structures. A parcel in the Village Business district, for example, may have a maximum lot coverage limit of 70 percent, a maximum height limit of two stories or 35 feet, and front, side and rear yard setbacks that must be at least 10 feet, 15 feet and 35 feet, respectively. The applicable zoning standards for the existing zoning districts were applied to each lot to determine maximum buildout in accordance with the Town's dimensional regulations.

Parking

Off-Street parking requirements also restrict the amount of development that can occur on a site by requiring space be set aside to accommodate on-site vehicle parking based on the type and size of uses. Oftentimes, a property will not accommodate the maximum level of development allowed by the dimensional regulations of a zoning district due to the need to reduce building footprints to accommodate the requisite number of parking spaces on the site. In these cases, the development must be reduced or scaled back so that it meets both the dimensional zoning standards and minimum parking requirements. Commercial uses permitted in the Village Business district such as retail and office uses, for example, require one parking space for every 180 square feet of gross floor area proposed.

Clearing

The amount of natural vegetation that can be disturbed in the Central Pine Barrens CGA is regulated by clearing restrictions pursuant to the Town's APOD requirements. Non-residential parcels are subject to a 50 percent clearing restriction which reduces the area available for structures and parking. This restriction therefore can also affect the level of development on a site by reducing the area of the site that can accommodate buildings and parking. For example, residential parcels are subject to a variable clearing restriction based on lot size, ranging from 20 percent to 75 percent.

Suffolk County Sanitary Code

Riverside has no community STP to accept and treat sewage generated in the area and therefore relies solely on individual on-site cesspools and septic systems for wastewater disposal. The SCDHS's Division of Environmental Quality regulates the level of development that may be supported by conventional septic systems by restricting the maximum sewage density load that can be discharged on a site based on the size of the property and proposed building, type of use proposed (e.g., single-family residence, multifamily residence, or nonresidential use), and its location (i.e., the Groundwater Management Zone that it is located in). Article 6 of the Suffolk County Sanitary Code sets forth the standards for maximum density loading per unit area in the respective Groundwater Management Zone, while other SCDHS policy documents provide the project density loading rates based on land use type and its respective size. For example, a proposed "dry store" that will rely on a conventional on-site septic system south of SR 24 in the Study Area would be in SCDHS's Groundwater Management Zone III which restricts the maximum flow to just 300 gpd/acre based on 0.03 gpd/sf of dry store. This restriction, therefore, can also affect the maximum buildout of a site, depending on the type of use proposed and the volume of wastewater anticipated to be generated.

Buildout Results

Based on the above assumptions and guidelines, the maximum level of development that could be established under current zoning in the shaded area above, if all lots were redeveloped, is 1,229,958 gross floor area (GFA) including 789,509 GFA of commercial space and 440,449 GFA of single-family residential space.[1] **Table 14-2** summarizes the buildout projection provided in the RRAP.

[1] It is noted that some of the land in the shaded portion of the Study Area is owned by the Town and County and is not likely to be developed.

Table 14-2

POTENTIAL EXISTING BUILDOUT ANALYSIS:	TOTAL SF	% REDUCTION	COMMERCIAL SF	RESIDENTIAL SF
Dimensional Regulations	5,470,895	-	4,458,639	1,012,256
Parking	2,368,941	-57%	1,374,526	994,415
Clearing	1,689,659	-12%	843,307	846,352
Suffolk County Sanitary Code	1,229,958	-8%	789,509	440,449

The primary issue with the above projections is that US Census data from 2000 through 2010 shows that population growth in Riverside was just 0.89 percent (i.e., less than one percent) indicating for all intents and purposes population stagnation. Empirical evidence, including the fact that most of the limited number of vacant developable lots in the Study Area have remained vacant for extended periods of time, and the presence of numerous boarded up commercial and recreational structures in the Hamlet, supports this notion of long-term stagnation from both a population and business growth perspective. In fact, major reasons for the Proposed Action are to reverse this long-term trend of vacant blighted buildings and the lack of business development and success, provide greater opportunity for residents and provide greater community sustainability. Based on the aforementioned, a more realistic projection of buildout in the absence of the Proposed Action over the next ten years is the status quo or no growth /No Action alternative scenario.

14.3 Alternative 3: Sewage Treatment Plant Options

Background

The Study Area is not currently served by municipal sewage treatment facilities, nor does the Town of Southampton provide such services in the area; therefore, sewage disposal in Riverside currently involves the use of individual on-site cesspools and septic systems. These conventional on-site sewage disposal systems are essential site infrastructure that are designed to collect, treat, and dispose of sewage through the processes of solids settling, soil filtration, and natural biological transformation that occurs in the septic tank and/or soil leaching areas. These systems, however, provide only minimal sewage treatment and little to no nitrogen removal to protect critical environmental resources such as the Peconic Estuary and local groundwater resources. Moreover, many of the systems in the area are antiquated and are not expected to be consistent with current SCDHS regulations, are operating on substandard sized lots, and do not receive the maintenance that regulated, supervised, and manned STPs receive.

Based on Article 6 of the Suffolk County Sanitary Code, new conventional septic systems in the Study Area may be installed if not more than 300 gpd of sewage density load is discharged per acre on land south of SR 24, while 600 gpd/acre is the threshold north of SR 24. Based on the sewage flow anticipated under the Theoretical Development Scenario, the envisioned development would exceed these thresholds and require connection to an approved STP with advanced (tertiary) sewage treatment technology.

Suffolk County Department of Public Works Sewer Feasibility Study

In 2013, Suffolk County Department of Public Works commissioned a study to explore the feasibility of providing sanitary sewer service along the Flanders-Riverside Corridor including the subject Study Area south of SR 24 in order to advance prospects for business development, improve the local economy, expand housing opportunities and protect the environment. This Feasibility Study addressed sewage collection, treatment and effluent discharge requirements, associated capital and operational costs, as well as the economic and environmental benefits associated with sewering the Flanders Riverside Corridor (CDM Smith; H2M; and Bowne AE&T Group, 2013).

There are currently several existing STPs in the region. The closest publicly owned and operated wastewater treatment facilities are as follows:

- The Evan K. Griffing County Center/Suffolk County Prison Facility in Riverside, which is located outside the Study Area but in close proximity to its western boundary;
- Gabreski Airport which is located off of Riverhead Road in Westhampton Beach, which is roughly 5 miles due south of the Study Area and south of Sunrise Highway. Issues associated with the Gabreski Airport site include the distance and requirement to install a main under Sunrise Highway;
- Suffolk County Community College ("Riverhead Campus")[2] 121 Speonk Riverhead Road: This facility is located roughly 3.25 miles to the southeast of the traffic circle. The main issue with this location is that it is in a Central Pine Barrens Core Preservation Area;
- Riverhead Sewage Treatment Plant located at 2 River Avenue, Riverhead, approximately one mile to the northeast of the area. The STP has sewer mains in downtown Riverhead near the traffic circle. This Riverhead STP serves the densely developed portions of the Town of Riverhead and its collection system does not currently extend into the Town of Southampton and the Riverside community. Past outreach to facility representatives has indicated an unwillingness to extend service to the Riverside community because the project is located in the Town of Southampton, not the Town of Riverhead and the plant's handling capacity and permits are based on the projected needs of the Riverhead service area and additional planned development along the CR 58 corridor.

The Study found that there were no existing STPs within a mile of the sewer feasibility study area that had the additional capacity to serve Riverside and instead suggested that a new facility with advanced nitrogen removal technologies be constructed in the area. Despite the current lack of capacity reported by that feasibility study, the Evan K. Griffing County Center/Suffolk County Prison Facility site in Riverside requires additional consideration to evaluate whether it could in fact be expanded or possibly accept some if not all of the Study Area's sewer flow if expanded.

[2] Although the address for this facility is "Riverhead, NY," the College is actually located in the Northampton section of the Town of Southampton.

Preliminary STP Site Analysis

Alternative 3 involves the identification and evaluation of several new and one existing location for the treatment and disposal of sewage generated under the Theoretical Development Scenario. Specifically, this alternative considers the best location(s) in or near the Study Area to site one or more new STPs and associated leaching field(s) and/or possible connection to and expansion of a currently operating STP to ensure the level of treatment required to continue to protect human and natural environments under the Proposed Action.

Any new STP locations must be capable of accommodating the projected 500,000 gpd of sewage projected for the Theoretical Development Scenario and comply with Suffolk County siting, design, operation, and applicable public health and environmental regulations. Similarly, an existing STP would have to have the capacity to accommodate the additional approximately 500,000 gpd or enough land and suitable environmental conditions to expand to meet this additional demand.

Based on the anticipated flow from the Theoretical Development Scenario, a new plant would require a footprint of 120 feet by 120 feet (i.e., 14,400 SF or 0.33 of an acre) and approximately two acres of leaching field based on suitably spaced 10-foot diameter leaching pools with 10 feet of effective leaching depth to absorb the anticipated flow under the Theoretical Development Scenario. The site must also contain enough area to allow for a 100 percent plant and leaching area expansion in the future. The County requires a minimum setback of 200 feet around STPs to protect adjacent habitable space, 150-foot setbacks to the nearest property boundary and a minimum 25-foot setback between leaching pools and property lines. Under these standards, the total land area needed for a new STP, leaching areas, and setbacks is estimated to be six to seven acres. STP and leaching areas would ideally, be contiguous to facilitate management; however, separate sites for the plant and leaching area(s) are also possible and could provide environmental benefits by providing greater distribution of the recharged effluent.

Figure 14-1 shows an existing County STP (Site A) and four possible locations for new STPs and leaching areas in the Study Area (Sites B, C, D, and E). The STPs each have 200-foot buffers around the STP footprints. In addition, two possible remote leaching field locations are shown (Sites F and G). Plant locations include the existing Evan K. Griffing County Center/Suffolk County Prison Facility (Site A); land between Riverhead-Quogue Road and Old Quogue Road (Sites B & C); and the Enterprise Zone industrial subdivision site (Sites D and E). Possible remote leaching areas include property that was formerly the Riverhead Head Start, which is located west of Phillips Avenue Elementary School at the terminus of Goodridge Avenue (Site F) and on the north side of SR 24 across from the existing mini storage facility (Site G). STP and leaching sites could include one or more locations and could include connection to existing and/or proposed facilities.

Figure 14-2 also depicts areas with a depth to groundwater that is less than or more than 12 feet. Sites B, D, and E, as well as remote leaching areas F and part of G, are situated where depth to groundwater is greater than 12 feet, while based on a review of Figure 4-7, the depth is greater than 15 feet at Sites D and E. Actual depths to groundwater and soil analyses would have to be determined to further identify the locations that are most suited for sewage disposal. Locations

where the depth to groundwater ranges between 12 to 14 feet may require up to two feet of surface "mounding" or fill to assure adequate groundwater separation and leaching/absorption capacity. None of the prospective locations are within 100 feet of wetlands or surface water bodies; however, two of the plant sites (Sites E and D) are in undisturbed Pine Barrens, which would necessitate additional clearing which may have to be offset.

Figure 14-2 shows the possible STP locations, remote leaching areas, 200-foot STP buffers, wetlands buffers, and groundwater time of travel isolines. The time of travel areas which are broken out into 0-2 year, 2-5 year, 5-10 year and 10-25 year time of travel zones indicates the estimated time it would take a particle of groundwater to flow from the respective area to the Peconic River. Sites A, G and part of (p/o) E are within the 0-2 year zone; Sites D, (p/o) B, p/o C, and most of E are in the 2-5 year zone; and p/o Sites C and B are in the 5-10 year travel time zone.

14.4 Recommended Conditions and Thresholds

Alternative 3 assumes development under the Proposed Action but focuses on the identification and preliminary assessment of potential STP sites. As a result, possible benefits and impacts are expected to be associated with sewage collection, treatment and disposal issues. Removal of existing antiquated cesspools and sanitary systems with an advanced sewage treatment facility has many benefits including supporting economic growth and an expanded housing stock with new housing options, more tax ratable development to offset impacts on community service providers, new employment opportunities to serve an area with a very high unemployment rate, and others, while mitigating impacts to environmental resources to the maximum extent possible.

Additional study is warranted to determine the best location(s) to serve the community. The following recommendations and thresholds should be considered in determining the most suitable location for sewage disposal.

- Commission a detailed sewer feasibility study to identify which of the identified sites or combination of sites is most suitable to serve the Theoretical Development Scenario.
- Drill soil borings at potential sites to determine the suitability of soils for drainage, sewage absorption and identification of actual on-site depth to groundwater. Unsuitable soils must be removed and replaced with clean material of a texture that complies with SCDHS requirements and provides suitable leaching.
- Tertiary sewage treatment must be provided and nitrogen discharge after treatment must have a concentration of 6 mg/l or less or as required by the SCDHS Board of Review.
- An area dedicated for construction of an STP should be approximately 120 feet by 120 feet to meet the anticipated design needs of the area or conform to the SCDHS Board of Review requirements if the SCDHS finds that a different size is appropriate.
- A minimum of two acres or the minimum required by the SCDHS Board of Review should be set aside for sewage leaching areas.
- The minimum depth to groundwater in leaching areas should be 14 feet or 12 feet with two feet of soil mounded at the surface to ensure adequate groundwater separation unless the SCDHS Board of Review requires a different standard.

- Leaching pools must be a minimum of 150 feet from any private well or greater if required by SCDHS based on the depth of a well unless the SCDHS Board of Review finds another setback is appropriate or necessary. If the 150 foot setback cannot be met, the developer will have to provide public water connections to properties currently relying on private wells within the 150 foot setback, as required by SCDHS.
- Sewage leaching areas should not be located in areas with a 0-2 year groundwater time of travel to any public supply well. Based on the distances of existing public wellfields from the Study Area and groundwater flow patterns, threats to public water supplies do not appear to be an issue. SCDHS and SCWA will further investigate this matter and provide input to verify conformance before any permits for STP construction are granted.
- A minimum two feet of separation must be maintained between the base of any leaching pool and the seasonally high groundwater table or a depth determined by the SCDHS Board of Review if greater separation is required.
- The leaching area must be a minimum of 100 feet from any surface waterbody or wetland unless the SCDHS Board of Review requires a greater or allows a lesser distance. Leaching areas should be located away from wetlands and surface waters and comply with any permits that may be issued.
- Sewer mains must be a minimum of 50 feet from any surface water or well or as required by the SCDHS Board of Review.
- Discharge from the STP must comply with the thresholds and performance standards of a State-issued SPDES wastewater permit.
- Groundwater time of travel to receiving surface waters should be the maximum possible and leaching pools should be installed at locations that maximize this distance.
- Odor control technology must be provided.
- Future facilities must be consistent with all other the SCDHS requirements except as may be modified by the SCDHS Board of Review
- New facilities should be dedicated to the County and the County should operate and maintain the system, including making sure a trained STP professional is available 24/7 to respond to any plant operations and maintenance issues.

14.5 Summary

Based on the foregoing discussion the Proposed Action with its attendant impact avoidance and mitigation techniques and in recognition of the numerous benefits it offers is the superior plan. It is noted, however, that the proposed uses and densities of the Theoretical Development Scenario are not possible unless connection is made to an approved STP. A sewer feasibility study that examines the identified sites and addresses those items listed in **Section 14.4** must be prepared to determine the most viable wastewater disposal option for the area.

15.0 FUTURE ACTIONS

This document is a DGEIS that analyzes the potential impacts associated with the adoption of the Riverside BOA Revitalization Action Plan and Zoning Amendments that would create a Riverside Overlay District consisting of seven distinct Overlay Zones. The SEQRA process will culminate with a Findings Statement on the Generic EIS. Title 6, New York Code of Rules and Regulations ("6 NYCRR") Part 617.10(c), states "*Generic EISs and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance. This may include thresholds and criteria for supplemental EISs to reflect specific significant impacts, such as site specific impacts, that were not adequately addressed or analyzed in the Generic EIS.*"

More specific guidance is provided in Part 617.10(d), which states that "When a final Generic EIS has been filed under this part:

(1) No further SEQR compliance is required if a subsequent proposed action will be carried out in conformance with the conditions and thresholds established for such actions in the Generic EIS or its findings statement;

(2) An amended findings statement must be prepared if the subsequent proposed action was adequately addressed in the Generic EIS but was not addressed or was not adequately addressed in the findings statement for the Generic EIS;

(3) A negative declaration must be prepared if a subsequent proposed action was not addressed or was not adequately addressed in the Generic EIS and the subsequent action will not result in any significant environmental impacts;

(4) A supplement to the final Generic EIS must be prepared if the subsequent proposed action was not addressed or was not adequately addressed in the Generic EIS and the subsequent action may have one or more significant adverse environmental impacts."

It is expected that the Findings Statement for the Generic EIS on the adoption of the BOA, RRAP, Overlay District and Zoning Map Amendments will contain Conditions establishing thresholds and requirements for supplementary impact analyses and mitigation measures for future development under the Proposed Action. Future site-specific actions will undergo a SEQRA review to determine the appropriate level of review in conformance with 6 NYCRR Part 617.10(d). If, during the site-specific review of development applications under the proposed Overlay Zones, potential significant adverse environmental impacts are identified that were not previously or adequately analyzed as part of this SEQRA review, additional site-specific review including technical studies and/or a Supplemental EIS, may be required. The information submitted with the application for each such future project will be used by the entity having jurisdiction as the basis for this determination.

Based on the results of the DGEIS impact analyses provided herein, the following actions may be required for future site-specific development project in the Study Area:

Soils and Topography

- Soil test borings will be completed on development sites to identify subsurface conditions, determine their suitability for development, and to identify viable means for mitigation as warranted. If unsuitable subsoils are found, techniques including deep compaction or over-excavation and replacement of unsuitable fill materials will be utilized as applicable. Development areas will be stabilized, in accordance with the recommendations of a licensed civil engineer, prior to construction of structural elements.
- Erosion control and construction phasing plans will be prepared for future site developments and will be reviewed by the Town Engineer and Planning Board as part of site plan review.
- Prior to the initiation of demolition and construction activities, brownfields or other sites having "recognized environmental conditions" (RECs) will have to be remediated. Remediation activities are required to be completed according to the protocols, procedures, standards and documentation requirements of the appropriate supervising entity, such as SCDHS, NYS Department of Labor, and/or NYSDEC.
- Stormwater best management practices (BMPs) such as green infrastructure (landscaped buffers, rain gardens, green roofs, vegetated swales, etc.) should be utilized on future development sites where practicable that are adjacent to surface waters and 100-year flood zones.

Water Resources

- Wastewater flow and water supply permitting is subject to SCDHS approval;
- Future development exceeding SCDHS groundwater management density loading requirements under Article 6 of the SCSC must connect to an approved STP that provides advanced nitrogen treatment reduction capabilities;
- The siting of a new STP must be assessed further to ensure that the facility conforms with SCDHS and SCDPW requirements and that groundwater and surface waters are properly protected; Strict compliance with all SPDES effluent permit requirements for community wastewater treatment and disposal systems (STPs);
- No more than 15 percent of the site may be planted with fertilizer dependent vegetation; Limiting landscaped areas that will require irrigation, fertilization and pesticide applications by retaining natural vegetation to the maximum extent possible and revegetating areas that have been disturbed during the construction process but will remain undeveloped with native or well-adapted non-invasive species;
- Water conservation fixtures for both indoor plumbing and any outdoor irrigation to help reduce water consumption and wastewater generation and adherence to the proposed Sustainable Development Standards for reducing impacts to water outlined under Section 410 J. of the Proposed Code Amendments;
- Incorporation of pre-treatment of stormwater runoff prior to infiltration using "green infrastructure" practices such as vegetated swales, filter strips, rain gardens, green roofs other best management practices (BMPs) in accordance with the New York State Stormwater Management Design Manual and the Suffolk County Planning Commission Managing Stormwater Guide.

- Future developments within the Central Pine Barrens Compatible Growth Area must be found in conformance to Articles 7 and 12 of the SCSC;
- Preparation of a SWPPP as required to ensure compliance with water quality and quantity requirements pursuant to the NYSDEC General Permit for Stormwater Discharges from Construction Activities (GP 0-15-002) and Town of Southampton requirements.

Ecological Resources

- Delineation of the flagged wetland boundary within the vicinity of each wetland area will be necessary to determine the exact location of the wetland boundary, and the quality of habitat within the wetland adjacent area. Development within the regulated adjacent area of each wetland will be governed through appropriate regulatory review at which time appropriate protective measures for the wetlands will be determined.
- Should a project require a variance from NYSDEC Article 24 or Article 25 wetland regulations or Town wetland regulations, mitigation for project impacts will be required. Mitigation measures that may be offered in support of a variance application include:
    - Wetland creation
    - Wetland restoration
    - Invasive species removal
    - Improvements to existing drainage systems which currently contribute to poor water quality
    - Improvements to existing sanitary systems which currently contribute to poor water quality.
- If threatened or endangered wildlife are encountered on a project site, site specific mitigation measures will need to be developed and an Article 11 Incidental Take Permit or Letter of Non-Jurisdiction will be necessary from the NYSDEC.
- Development within proximity to a potential tiger salamander breeding pond would require pond and/or upland habitat surveys to determine the presence/absence of the species. Should the presence of the species be confirmed, the appropriate mitigation measures would need to be considered during site design, which would include preservation of habitat, installation of barrier curbing or flashing to prevent salamanders from entering into a developed area, provisions to address lighting, stormwater runoff and management plans for both the pond and preserved upland habitat.

Critical Environmental Areas

- Future development must comply with all standards and requirements of the APOD, CPBOD, NYSDEC freshwater wetlands permit conditions, and be consistent with the guiding principles and recommendations of the Central Pine Barrens Comprehensive Land Use Plan and the Peconic Estuary Conservation and Management Plan and area TMDL standard, except as may be waived pursuant to applicable laws and procedures after review

and consideration by the agency or board overseeing the review and having authority over consistency and compliance.

- Demonstration of compliance with approved clearing limitation to ensure that not more than 13.09 acres of existing natural vegetation is removed within the Central 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 for overall ROD. Submit mitigation plan, in a form acceptable to the CPBC and the Town to address any excess clearing, which may include:
  - Contribution to a Riverside 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:
    - Purchase 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 pine barrens natural vegetation;
    - Invasive species removal and control to increase pine barrens natural vegetation;
    - ATV control, security and enforcement to ensure that natural vegetation impacts do not occur;
    - Management programs that improve the quality of pine barrens vegetation (e.g., fire management, pine beetle management, etc.); and
    - Other potential programs that benefit natural vegetation in the Central Pine Barrens within five miles of Riverside.
  - Ensure that existing quality contiguous natural pine barrens habitat is retained in the Study Area through design.
  - Advance wastewater treatment opportunities, nitrogen removal, stormwater management, other technologies that will improve water 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).
- No more than 15 percent site may be planted with fertilizer dependent vegetation such as certain grasses. Covenants and restrictions or the conditions of duly executed filed easements should be used to formalize such agreements and assist in any necessary enforcement actions.
- All future development should connect to the public water supply.
- Submission of a Community Wild, Scenic and Recreational Rivers designation in the Recreational area mapped along the western boundary of the Study Area, or maintain the Recreational designation and comply or seek variances upon any redevelopment of individual parcels.
- New York State Coastal Consistency reviews may be required for future projects proposed north of SR 24 in the future if they require State or Federal Permits.

Land Use & Zoning

- Incentive Bonus Verification: Applications opting into the Incentive Bonuses must demonstrate the application meets the requirements for minimum lot area and street frontage, Sustainability Standards.
- Phase I Environmental Site Assessments (and Phase II ESAs if determined necessary by the Phase I) shall be conducted to identify any existing recognized environmental conditions (RECs) or potential concerns relating to demolition and site preparation prior to demolition and development. An ESA will identify the need for testing to determine if RECs are present which require further testing, remediation, abatement, regulatory oversight or other appropriate action. Any redevelopment or property transfer will be subject to the necessary regulatory steps and agency oversight to properly investigate, and remediate if necessary, recognized environmental conditions warranting such action. Issues that must be considered include the presence of asbestos containing materials (ACM) or soil contamination that contains elevated concentrations of contaminants in excess of regulatory agency standards. Issues of concern shall include identification of potential issues associated with from floor drains, above- and below-ground fuel storage tanks, drywells, stormwater leaching pools, septic systems and cesspools, and past hazardous materials releases from storage, leaks, spills, mishandling of materials, intentional discharges, or other hazardous materials releases that have resulted in or may cause hazardous conditions. If hazardous conditions are identified, a plan to rectify these concerns will be developed and implemented.

Community Character (Visual Resources and Cultural Resources)

- If future development is proposed within identified areas of archaeological sensitivity that have not been previously disturbed, a Phase I archaeological survey/cultural resource evaluation will be required. A cultural resource evaluation should include contact with the SHPO for review. Additional analysis may be required to mitigate any potential impacts based on the findings of the cultural resource evaluation.

- Unless design guideline are implemented for the ROD by the Town, every application for site plan approval for the construction of a building or structure requiring site plan review shall be referred by the Planning Board to the Board of Architectural Review and be reviewed by the entire Board. Applications reviewed under this subsection shall result in the preparation of an advisory report to assist the Planning Board in its consideration of the site plan. The advisory report shall be limited to the architecture of the proposed buildings, structures and signage and shall include a specific recommendation that the buildings, structures or signs be approved, denied or approved with conditions which relate specifically to the criteria set forth in § 330 and the ROD. If and when the Town adopts design guidelines as part of the ROD then the building official will perform a consistency review during the Site Plan Application process and make a recommendation to the Planning to Planning board specifically noting the Application's level of consistency with those mandatory design guidelines no further Architectural Review will be required under the ROD.

- Every application for a building permit for the construction of a building or structure not requiring site plan review shall be referred by the Building Administrator to the Board of Architectural Review and be designated by the Building Administrator as "substantial" or "nonsubstantial" construction. Applications for nonsubstantial construction may be reviewed by a committee of one member of the Board, but all applications for a sign permit and all applications for substantial construction shall be reviewed by the entire Board. Applications reviewed under this subsection shall be approved, denied or approved with conditions which relate specifically to the criteria set forth in Section 330.

Community Services

- Future development and redevelopment projects envisioned under the Proposed Action and Theoretical Development Scenario will require a source of potable drinking water and must connect to a public water supply. Written confirmation must be obtained from the SCWA, its successors or other public water provider demonstrating that an adequate supply of water is available to satisfy both the "domestic" (drinking water) and "non-domestic"(non-drinking water) needs of the project prior to issuance of a building permit.
- Sewage flow that exceeds SCSC Article 6 standards must connect to sewers and/or use other methods of acceptable mitigation such as the transfer of development rights or sanitary credits in accordance with Town, SCDHS and CPBJPPC standards and requirements.
- The expected substantial increase in taxes generated will help to offset the increased needs for and costs of community services.
- An additional 283 students are anticipated to be generated by the Proposed Action (phased over a ten year period as projects are designed and constructed). The Town and the Master Development will work with the Riverhead CSD to evaluate the demographic needs and expected number of students based on current growth trends and the additional students anticipated from the Proposed Action. Once a greater understanding of future enrollment is completed, a determination of facility needs to accommodate this growth can be evaluated, including the cost of necessary facility improvements and potential funding mechanisms. A "Fair Share" mitigation program and fund will be established based on the Proposed Action's proportional share of additional school age children to assist in providing revenue for necessary evaluation and implementation of facility upgrades.
- Buildings must be constructed in conformance with New York State Fire and Building Codes and the recommendations of emergency service providers in terms of access and the provision of fire hydrants. In addition, use of sprinklers and fire/smoke alarms will assist in minimizing the potential need for fire protective services.
- The Fire Department/Fire Marshal will have the opportunity to review future proposed site plans to ensure that their needs, including provisions for emergency access, hydrant locations, sprinkler systems, fire alarms, and smoke and carbon monoxide detection, are properly addressed.
- The Fire Department will have the opportunity to provide input on site-specific plans, thereby requiring any site-specific mitigation measures necessary.

- Pursue establishment of third party billing (i.e., pay for service reimbursement program) which would permit the NFVA to bill private insurance companies for services rendered. This would help to mitigate future costs and offset any additional burden on the Town and its taxpayers. Some of the money that is saved by the Town could be allocated toward paying the copayments of residents, while persons who live outside of the community would be responsible for their own copayments. A special contractor could assist in the third party billing and provide greater administrative efficiency and a greater likelihood of payment.
- If Third Party Billing is not pursued or achieved consider hiring two additional paid EMTs and two critical care technicians or create a Town-wide ALS office under the Town's Public Safety Division so that personnel and resources can be pooled. The pooling of services, equipment, and costs would be a more efficient use of resources, while sharing the costs of service delivery throughout the Town. An estimated five Paramedics and one Supervisor would likely be needed in the future if this approach is chosen.
- Attract more ambulance personnel by giving preference to volunteers and any paid ambulance personnel who are residents in securing affordable or workforce housing to become available under the Proposed Action.

Traffic and Transportation

- Increases in traffic from the proposed project can be accommodated at some study intersections without any mitigation. Some locations will require mitigation ranging from adjustments to the signal timings, additional lanes and installation of a traffic signal. Although there will be changes in the LOS at some intersections, they will continue to operate at acceptable levels of service. Fair Share mitigation contribution to allow for the following mitigation implementation:
  - Optimize and adjust the splits at the signalized intersection of Flanders Road (NYS Route 24) and CR 105.
  - Redesign the northbound Old Quogue Road approach at its intersection with Flanders Road (NYS Route 24) to provide one right turn lane and one left turn lane.
  - Redesign the northbound Vail Avenue approach at the intersection of Flanders Road (NYS Route 24) at Vail Avenue to provide one right turn lane and one left turn lane. In addition to the redesign of the northbound approach, re-stripe the painted median on Flanders Road just west of Vail Avenue as a center two-way left turn lane consistent with the rest of Flanders Road.
  - Install a traffic signal at the intersection of CR 104 at Old Quogue Road and Ludlam Avenue.

Air Quality

- Construction activities must conform to Town Code Chapter 235 "Noise" regulations including conformance to the maximum prescribed sound pressure levels at the property line for activities occurring between the hours of 7:00 AM and 7:00 PM.

- Comply with NYSDEC air permit requirements if applicable, though major sources are not permissible (and minor facilities, such as auto uses, would require registrations through the DEC for minor emission sources).
- Require mitigation for fugitive dust related to construction activities using proper construction management techniques, erosion control measures, wetting of excessively dry soils.

Socioeconomic

- Implement Community Benefit Policies:
    - Demonstrate compliance with the the Community Benefit Policies
    - Demonstrate provision for Community Benefit Units

Demolition and Construction Activities

- Truck activity is expected during the day (Monday-Saturday). All soil material removed from the project site will be transported in accordance with Town input. Truck traffic will be temporary and intermittent and utilize major streets and highways such as SR 24, CR 104, CR 63, CR 105, CR 51 to the extent practicable.
- Parking Management Plans and/or a Remediation Plans (where applicable) for development and redevelopment.
- Prior to the initiation of construction activities, remediation of sites where recognized environmental conditions (RECs) will be identified. Remediation activities are required to be completed according to the protocols, procedures, standards and documentation requirements of the appropriate supervising entity, such as SCDHS, NYS Department of Labor, Nassau County Fire Marshal and/or NYSDEC.

All applications for new development projects in the Study Area will continue to be subject to SEQRA procedures and requirements. This means that all such future development projects, whether proposed under the ROD or not, would be subject to individual approval processes, including site plan review and site-specific impact review or consistency review with the Findings Statement, under SEQRA. Applications filed consistent with ROD standards must conform to any applicable Conditions listed in the Findings Statement. Projects filed without the opting-in to the ROD shall be subject to SEQRA review and will not have the benefit of the qualified status of the Proposed Action. Such project shall consider the Findings and full analysis of the Proposed Action in its review prior to the Town completing the SEQRA process. Adherence to this procedure will ensure that all future development in the Study Area complies with SEQRA, and conforms to established land use controls, minimizes potential adverse environmental impacts, and provides consistency with established Town policies and goals as outlined in the Comprehensive Plan Update and other community plans.

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