
APPENDIX F
SDGEIS SUMMARY OF PROJECT BACKGROUND,
PUBLIC NEED, AND OBJECTIVES, PROJECT SPONSOR
OBJECTIVES, AND BENEFITS OF PROPOSED ACTION

**SUMMARY OF PROJECT BACKGROUND, PUBLIC NEED AND OBJECTIVES,
PROJECT SPONSOR OBJECTIVES, AND BENEFITS OF PROPOSED ACTION
SECTION 1.3 of the 2023 SDGEIS**

The proposed Riverside Sewer District and public sewer infrastructure are two of the most important implementation actions identified by the previous long-range planning effort for the community of Riverside as they are essential to economic growth and revitalization, support greater development density and a more diverse mix of land uses, and offers the necessary incentives for developers to invest in the area. This investment, redevelopment and growth will help to address blight, create new jobs, encourage the building of new affordable housing, and stimulate economic revitalization. This is due to on-site septic system flow limitations established by the Suffolk County Sanitary Code (SCSC) that are necessary to protect public health and the environment, but greatly restrict the type and density of development that is possible, and the critical mass of new development needed to bolster the local economy and provide financial opportunities. Moreover, the many important and environmentally sensitive natural resources in the area and the many physical and environmental constraints posed by these resources can be better addressed and protected by sewage treatment facilities that provide the maximum level of treatment possible. To prevent additional impacts from sewage disposal on the underlying aquifer and nearby Peconic River Estuary, area ponds, brooks, and fresh and tidal creeks and wetlands, limits have also been established on the volume of untreated wastewater that can be generated by ROD development.

Since all existing development in the proposed Sewer District currently relies on on-site septic systems and cesspools and many of these systems are unlikely to fully comply with current SCSC standards, significant improvements in terms of effluent quality and pollutant loading are possible. For example, both the MBR and SBR STP considered for the District are designed to reduce total nitrogen concentrations to less than 10 mg/L (**Nelson & Pope, 2023**). This is considerably lower than the 40 to 50 mg/L used by **Hantzsche and Finnemore (1992)** in their study of nitrogen loss when effluent from septic systems enters the ground; or the median 44± mg/L of total dissolved nitrogen found in septic systems by **Rosen, Kropf and Thomas (2006)** in its study of nitrogen loading from septic systems; or the 62 mg/L referenced by **Bauman and Schafer (1985)** from their review of more than 20 studies on septic systems throughout the country. Although conventional sanitary systems generally provide some level of nitrogen removal, they are highly ineffective compared to STPs. According to the Center for Watershed Protection's Watershed Treatment Model (WTM) performed for the SDGEIS by NPV, the existing service area contributes approximately 5,976 lbs./year of nitrogen to the Peconic River (**Caraco, Deb, P.E., Center for Watershed Protection, 2013**).

There has been a collective effort by federal, state, county, and local agencies as well as participation from within the community to protect and preserve the Peconic Estuary. One result of this collaborative effort has been the creation of the Peconic Estuary Partnership (PEP) (formerly the Peconic Estuary Program). The PEP was created in 1992 to help to protect the Peconic ecosystem and allow it to continue to thrive. One of the key goals of this Program and the Peconic Estuary Comprehensive Conservation Management Plan, which is the foundation of the PEP, is to minimize the total nitrogen (TN) being discharged into these waters (including the Peconic River and its tributaries) to reduce impacts from cultural eutrophication¹, while maintaining the State's minimum dissolved oxygen (DO) concentration standard. In furtherance of this goal, the PEP, in coordination with the US Environmental Protection Agency (EPA) and New York State Department of Environmental Conservation (NYSDEC), prepared the *"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."* The plan called for beneficial re-use of Riverhead STP sanitary effluent for off hours irrigation of the adjacent County owned Indian Island Golf Course. The recommended beneficial re-use project was completed in 2016.

The PEP was designed to achieve a goal of 0.45 mg/l TN in all waters and 0.40 mg/l TN in shallow waters. According to research conducted by NPV as part of the BOA study, the community has a total nitrogen concentration in recharge of 4.58± mg/l, since conventional onsite treatment systems can only provide limited nitrogen treatment and reduction. In order to help improve the health of the estuary and its ecosystem, there needs to be a focus on the quality of discharge to the surface waters. The PEP provides more evidence as to the necessity of nitrogen reduction in the community and its impact on the surrounding areas.

There are some issues associated with continued use of septic systems. First, the nitrogen concentration was analyzed from part of the existing community and was found to almost double the guideline set forth by the Central Pine Barrens Comprehensive Land Use Plan's Guideline 5.3.3.1.3, which is used for evaluating a Development of Regional Significance (DRS). This guideline suggests that a maximum concentration of 2.5 mg/l should be used, which is nearly half of the current measured concentration of 4.83 mg/l. Aside from the existing conditions exceeding the current guidelines for nitrogen concentration, additional development (as proposed by the

¹ Eutrophication is a process or condition whereby water bodies, such as lakes, estuaries, or slow-moving streams receive excess nutrients that stimulate excessive plant growth (algae, periphyton attached algae, and nuisance plants weeds). This enhanced plant growth, and/or algal bloom, reduces dissolved oxygen in the water as dead plant material decomposes and can cause other organisms to die. Nutrients can come from many sources, such as fertilizers applied to agricultural fields, golf courses, and suburban lawns; deposition of nitrogen from the atmosphere; erosion of soil containing nutrients; and sewage discharges.

adopted RRAP and rezonings) would not be permitted to utilize conventional sewage treatment systems as outlined in the ROD.

Another issue is the current restrictions placed on the area that hinder development. Since the goal of the Town is to develop and revitalize the community, as expressed in the RRAP and supported by the community, the Town has also created the ROD to encourage sustainable development. However, since the SCSC enforces a range of sanitary flow from 300 to 600 gallons per day per acre in the area, new development will be unable to develop to their highest potential without the benefit of sewage collection, treatment and disposal.

As stated in the 2013 Flanders Riverside Corridor Sewer Feasibility Study, there are no existing STP's within a mile of the community that can treat the anticipated flow from the area. Therefore, for the goals of the RRAP to succeed and to protect the existing natural resources, it was determined that a collection system and a centrally located STP must be constructed. Since there is no existing available sanitary infrastructure, the Sewer District will be divided into sewer subdistricts for the purposes of collecting and conveying sanitary sewerage to the proposed STP. Each subdistrict will have a dedicated sewage conveyance system and its own remote sanitary pumping station. The STP will therefore be designed to accommodate fluctuating inflow from four pumping stations.

Many benefits are expected to result from the creation of the Riverside Sewer District and construction of the publicly owned proposed collection and treatment facilities. These include both direct benefits (e.g., protection of the environment and public health) and indirect benefits (e.g., fiscal, economic growth, new jobs, long range community sustainability, housing, businesses, increased availability of goods and services, etc.) that may not be possible if the Proposed Action is not implemented.

Direct and indirect benefits that are expected from the Sewer District and collection and treatment facilities include:

- Protection and possible enhancement of the environment and protection of human health;
- 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 with a critical mass of development and development density that supports economic growth and community vitality;
- The development and redevelopment of vacant and underutilized properties with a mix of land uses that are compatible and supportive of existing and future land uses in the

area;

- The diversification of the community's housing stock by providing additional market rate and Community Benefit Units (50 percent of the total units), significantly increasing affordable workforce housing options for households of various sizes and housing needs;
- The elimination of blight, redevelopment of vacant or abandoned buildings, reuse of vacant and underutilized lots, cleanup of brownfield sites, promotion of infill development, enhancement and revitalization of the community, increased community investment and improved property values;
- The creation of construction jobs as well as more permanent part-time and full-time employment opportunities at future retail, restaurant, office, personal service, hospitality, industrial, recreational, and cultural facilities, and new maintenance positions at multifamily residential buildings;
- The creation of a more walkable multimodal (car, bus, train, taxi, bicycle and pedestrian) transit-oriented community that can best be accomplished with compact growth, and new road improvements through community investment that will mitigate traffic impacts to the maximum extent practicable; and
- Fostering a new sense of place, with increased levels of community interaction through building form, design, site layouts, enhanced streetscapes, an increased level of "eyes on the street" to promote public safety, new pedestrian amenities, attractive architecture and landscaping, and outdoor community spaces and activities, all under a coordinated form-based master plan that cannot be fully achieved without adequate infrastructure to support it.

Anticipated Fiscal Impacts/Benefits from the BOA/RRAP Studies (All dollar estimates are in "2015 dollars.")

- The Riverside Plan will significantly increase taxes generated in the area, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. At full (STP-dependent) build-out, the Proposed Action was projected to generate over \$12.6 million in annual taxes (in 2015 dollars). This represents a net increase of over \$10.3 million per year when compared to the 2015 site conditions.
- Upon full (STP-dependent) build-out under the RRAP and ROD, the plan would levy over \$9.7 million to the Riverhead Central School District. This represents 77.4% of the total taxes projected to be generated by the site.
- The full (STP-dependent) build-out under the RRAP and ROD would levy over \$355,000, or 2.8% of the taxes, to the Riverside & Baiting Hollow Library District.
- Under the full (STP-dependent) build-out, over \$550,000 or 4.4% of the total tax revenues were 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 from the full (STP-dependent) build-out was 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 was projected to levy \$758,000, or 6% of the total tax revenue generated by the RRAP and ROD under full (STP-dependent) build-out.
- The balance of the 2015 property tax revenue projection was 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 projected for the full (STP-dependent) build-out were all assumed to be enrolled within public schools in the Riverhead CSD. It was projected that the 283 students will cost the Riverhead CSD approximately \$5.2 million in annual expenditures (2105 dollars) upon full buildout and occupancy of the development. It is estimated that the school district would receive over \$9.7 million in additional property taxes from the RRAP which would help alleviate an increased burden on other taxpayers throughout the district.

Anticipated Economic Impacts/Benefits: Construction Period (in “2015 dollars”)

- The construction period of 10 years for the RRAP and ROD was projected to represent a total of over \$636 million in investment in 2015 dollars. This direct output was 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 was projected that the full (STP-dependent) build-out construction period would 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 would go to residents of the Town, with priority consideration going to residents of Riverside.

Anticipated Economic Impacts/Benefits: Annual Operations (in “2015 dollars”)

- It is assumed that the Proposed Action would begin the operational phase of development upon the completion of the first year of the ten (10)-year construction period. For the purpose of the 2015 analysis, construction would 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 RRAP and ROD were projected to generate over \$56.4 million in annual operational revenues in 2015 dollars, stemming from annual rental income as well as annual sales revenues for each project component.

- The direct operational revenues were projected to generate an indirect impact of over \$17 million.
- The induced impact of building operations alone was projected to total \$22.6 million. Added to that would be the impact of the expenditures of the new residents, which is quantified only in induced impacts. Residential expenditure impacts would add another \$142.9 million in output in 2015 dollars. Induced impacts of operations and occupancy would 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 was estimated to result 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 was projected to generate 678 jobs each year during annual operations. These 678 direct employment positions were 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 RRAP and ROD are anticipated to generate 1,971 full-time equivalent (FTE) employees during annual operations under full (STP-dependent) build-out. 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 were 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.