

21. Cumulative Impacts

According to the SEQRA regulations the draft EIS should identify and discuss the reasonably related short-term and long-term impacts, cumulative impacts and other associated environmental impacts only where applicable and significant. The SEQRA regulations further state that the lead agency must consider reasonably related long-term, short-term, direct, indirect and cumulative impacts, including other simultaneous or subsequent actions which are included in any long-range plan of which the action under consideration is a part; likely to be undertaken as a result thereof; or dependent thereon. The SEQRA Handbook updated in 2010 is silent on cumulative impacts other than to summarize case law.

For the proposed project there are not any simultaneous or subsequent actions which are included in any long-range plan of which the action under consideration is a part; likely to be undertaken as a result thereof; or dependent thereon. However, the Final Scope specified that cumulative impacts be considered for the topics analyzed in this DGEIS. Therefore, this section of the DGEIS discusses in a general manner other projects in the geographic area around the project site, and to the degree details were available, the cumulative impacts that could be expected to occur. Since different areas of potential environmental impact such as watershed, traffic, air, noise and school district had different areas of influence, the Town of Brookhaven was requested to provide three separate data sets for cumulative impacts.

- Projects within the Longwood School District for school district impacts
- Projects within the Carmans River watershed for groundwater and surface water impacts
- Projects within a one mile radius of the project site for other impacts

21.1. Longwood School District

The Town of Brookhaven provided a GIS database with approximately 343 change of zone, site plan and subdivision applications covering over 8,000 acres and spanning the time frame from 1987 through the present. These were reviewed in GIS and any projects where a road was present were assumed to have been built and removed from the analysis. This reduced the database to 144 applications covering over 3,900 acres. The resulting applications are shown in Figure 21-1 and summarized in Table 21-1. The database did not differentiate between which applications were residential or non-residential, or currently

active or inactive. As such, the potential students that could be generated from these projects could not be determined.

Table 21-1: Applications in Longwood School District

| Type | Number | Acreage | Time period |
|----------------|---------------|----------------|--------------------|
| Change of Zone | 29 | 718 | 1999-2010 |
| Site Plan | 43 | 1,199 | 2000-2010 |
| Subdivisions | 72 | 1,999 | 2001-2010 |
| Total | 144 | 3,916 | 1999-2010 |

Source: Town of Brookhaven GIS

As discussed in Section 19.5.6, approximately 207 students are anticipated to be generated from the proposed project and the anticipated tax revenues are expected to offset the additional costs related to these students. Additionally, as the project is anticipated to be built out over an extended time frame, it would likely be many years before the full projection of 207 students would be realized, giving the District time to prepare for absorption of these potential new students.

A cumulative impact analysis of hundreds of possible projects is beyond the scope of this GEIS and would best be performed by the District, separate and apart from this GEIS, so that the District could plan appropriately for growth within the District over the next several decades.

21.2. Carmans River Watershed

The Carmans River watershed projects provided by the Town of Brookhaven consisted of 30 projects, nine of which were not pertinent to groundwater and surface water issues. Three were minor actions, three were wireless towers, two were superseded by more current applications, and one was a specialized application for a fish farm. Of the 21 other projects in the watershed (Figure 21-2), eleven projects on the west side of the Carmans River and three projects on the east side of the Carmans River were anticipated to utilize septic systems with a total estimated flow of approximately 104,600 gallons per day. The seven remaining projects exceeded the SCDHS density requirements and it was anticipated that they would be connected to a public or private treatment plant. Of these, three were west of the river and four were east of the river with a total estimated flow of approximately 436,500 gallons per day. Table 21-2 lists these projects along with a description of the project, the acreage, the hydrogeological zone, and an estimate of

wastewater flow. It should be noted that several of these projects are more than five years old and that not all of these projects may proceed to approvals and construction.

Table 21-2: Projects within the Carmans River Watershed

| | Log ID | Type | | Project Name | Description | Acres | HG Zone | Septic gpd | STP gpd |
|---|--------------|------|---|---------------------------------|--|--------|---------|---------------|------------|
| 1 | 2002-010-PS | S | W | Starlight Properties | 45 acre light industrial | 45 | VI | 26,987 | |
| 2 | 2002-061-PS | S | W | Pinewood Gardens | 10 single family units | 11 | III | 3,000 | |
| 3 | 2003-014-CZ | CZ | W | Silver Corporate Park | 310 senior housing units, 58.75 acres light industrial | 117 | III | | 104,984 |
| 4 | 2009-001-FS | S | W | Enchanted Forest | 9 single family units | 49 | III | 2,700 | |
| 5 | 2007-035-PS | S | W | Crescent Ridge | 6 single family units | 7 | VI | 1,800 | |
| 6 | 2004-027-PS | S | W | Romeo Estates | 23 single family units | 27 | III | 6,900 | |
| 7 | 2004-041-PS | S | E | Whispering Hills | 32 single family units | 80 | III | 9,600 | |
| 8 | 2007-021-FS | S | W | Windwood Oaks at Yaphank | 12 single family units | 15 | III | 3,600 | |
| 9 | 2008-034-CZ | CZ | W | Yaphank Avenue Corporate Center | 115,750 square feet office | 11 | VI | 6,945 | |
| 10 | 2009-020-FS | S | W | Rosh Industrial Park | 644,690 square feet industrial | 43 | VI | 25,788 | |
| 11 | 2007-014-PS | S | E | Hamlet Preserve | 182 single family units (assume 25 within watershed) | 206 | VI | 7,500 | |
| 12 | 2008-001-PS | S | W | Garden Lane Associates | 17 single family units | 18 | III | 5,100 | |
| 13 | 2010-006-LD | S | W | Mill Road and Doral Lane | 5 single family units | 6 | VI | 1,500 | |
| 14 | 2005-028-CZ | CZ | W | Meadows @ The Hamlet | 60 senior units | 10 | VI | | 13,500 |
| 15 | 2010-011-CZ | CZ | E | The Meadows at Yaphank | Planned Development District | 334 | III | | 274,425 |
| 17 | 08SP0029 | SP | E | Above All Storefronts | 26,950 square feet health club facility | 5 | VI | | 8,085 |
| 18 | 10SP0004 | SP | E | Pinnacle Hotels LLC | 7 story hotel with 200 rooms, restaurant and convention center | 6 | III | | 33,600 |
| 19 | 10SP0005 | SP | W | Suffolk Federal Credit Union | 40,030 square feet office | 8 | III | 2,402 | |
| 20 | 110SP0041 | SP | E | Islamic Center of Mastic | 3,944 square feet house of worship | 0.5 | VI | | 600 |
| 21 | 12007-076-SP | SP | E | A. M. Care Realty LLC | 13,139 square foot addition to existing building | 2 | VI | 788 | |
| 22 | 2007-027-SP | SP | W | Domingues Property | 7,800 square foot daycare and 2,604 square feet office | 2 | III | | 1,326 |
| Source: Town of Brookhaven CZ=Change of Zone; SP=Site Plan; S=Subdivision; E=East;W=West | | | | | | 1002.5 | | 104,610 | 436,520 |

The Town of Brookhaven is currently conducting a comprehensive analysis of the Carmans River Watershed. According to an October 20, 2010 Town of Brookhaven press release, the Carmans River Study Group is comprised of Town officials, Pine Barrens Commission members, and members from non-governmental organizations. A Draft

Carmans River Watershed Protection Plan was issued in February 2011 which defines the watershed and analyzes the scientific data currently available. The Selected Developer, as well as all other proposed projects within the watershed, would be required to comply with recommendations of this report which are codified by the Town of Brookhaven. The regulations ultimately adopted by the Town of Brookhaven should consider cumulative impacts within the watershed and provide mitigation.

21.3. Other Areas

For the other areas of analysis, a one mile radius was utilized. Within this radius there were a total of 14 projects encompassing approximately 1,000 acres (Figure 21-2). It is noted that some of these projects are almost a decade old and that all may not be developed. Table 21-3 provides a summary of these projects.

Table 21-3: Projects within One-Mile Radius

| Map ID | Log number | Type | Project Name | Action | Acres |
|--------|-------------|------|---------------------------------|--|-------|
| 1 | 2002-010-PS | S | Starlight Properties | 45 acre light industrial | 45 |
| 2 | 2002-061-PS | S | Pinewood Gardens | 10 single family units | 11 |
| 3 | 2003-014-CZ | CZ | Silver Corporate Park | 310 senior housing units, 58.75 acres light industrial | 117 |
| 4 | 2009-001-FS | S | Enchanted Forest | 9 single family units | 49 |
| 6 | 2004-027-PS | S | Romeo Estates | 23 single family units | 27 |
| 7 | 2004-041-PS | S | Whispering Hills | 32 single family units | 80 |
| 8 | 2007-021-FS | S | Windwood Oaks at Yaphank | 12 single family units | 15 |
| 9 | 2008-034-CZ | CZ | Yaphank Avenue Corporate Center | 115,750 square feet office | 11 |
| 10 | 2009-020-FS | S | Rosh Industrial Park | 567,000 square feet industrial | 43 |
| 14 | 2005-028-CZ | CZ | Meadows @ The Hamlet | 60 senior units | 10 |
| 15 | 2010-011-CZ | CZ | The Meadows at Yaphank | Planned Development District | 334 |
| 16 | 08SP0008 | SP | Riegel Warehouse LLC | 73,825 square feet warehouse | 25 |
| 17 | 08SP0029 | SP | Above All Storefronts | 26,950 square feet health club | 5 |
| 19 | 10SP0005 | SP | Suffolk Federal Credit Union | 40,030 square feet office | 8 |

Source: Town of Brookhaven; CZ=Change of Zone; SP=Site Plan; S=Subdivision

1,064

21.3.1. Geology, Soils and Topography

No cumulative impacts are anticipated to geology, soils or topography as these are localized to the specific project sites.

21.3.2. Water Resources

As discussed above, impacts to the Carmans River Watershed are being addressed by the Town of Brookhaven.

Stormwater Management

Each project would be anticipated to handle its stormwater in accordance with all regulations and to contain all stormwater on their site to minimize the potential for stormwater runoff.

Water Supply

If all of the projects listed within one mile of the site were approved and built, there would be an increase in withdrawal of groundwater. As discussed in Section 18.2.1, while the aquifer has adequate capacity, the SCWA does not currently have the infrastructure to deliver this volume of water. Therefore, improvements to the pumping and distribution systems would be required.

Wastewater Treatment

There would be an increase need for wastewater treatment. It is anticipated that it would be determined on a case by case basis how wastewater from each development would be handled, and capacity would have to be created (if not available) in order for projects to be approved, as is the case with the proposed project.

21.3.3. Ecology

Within a one mile radius of the project site (approximately a 6,000 acre area) there are approximately 1,100 acres of permanently protected land and another 366 acres of vacant publicly-owned land. In addition there are 1,440 acres of land that are vacant, aside from the properties associated with the listed projects. Further from the project site there is significantly more land protected by its presence within the regulated areas of the Pine Barrens and the Carmans River (Figure 7-9 and Figure 10-1). Additional lands are proposed to be protected by the recently released Draft Carmans River Watershed Protection Plan. Therefore, even if the proposed development of approximately 300 acres, and another 1,000 acres if all listed projects are approved, are built, thousands of acres of permanently protected or publicly-owned habitats would remain available for wildlife in the immediate area. The Town of Brookhaven will have the ultimate

control over approvals (and conditions, as required) for these projects and will consider, through the SEQRA process, cumulative impacts as they review each of the proposed projects, as well as any additional projects proposed in the future.

21.3.4. Land Use, Zoning and Public Policy

Decisions on land use, zoning and public policy are under the jurisdiction of the Town of Brookhaven and, for some issues, the County of Suffolk. The Town is currently preparing Comprehensive Plan 2030 as the first Phase of Brookhaven 2030. According to the Town's website:

"This Plan will establish goals and recommendations to guide the future of the community by holistically considering social, economic and environmental factors that influence the development of land, and the provision of infrastructure and public services. Comprehensive Plan 2030 will ultimately serve as a framework for consistent decision-making throughout the Town."

Projects approved on the project site and within one mile of the site will have to conform to the regulations in place at the time of project review and approval and this will ensure consistency with the Town's land use, zoning and public policy goals.

21.3.5. Transportation, Air Quality, and Noise

Trip generation from the projects listed have been incorporated into the No-Build condition for the traffic, air quality, and noise analyses provided in Chapters 11, 13, and 14, respectively. The Traffic Impact Study details the traffic mitigation measures that are required because of the cumulative traffic levels; this "Mitigated Build" traffic condition is incorporated into the Air Quality and Noise analyses.

21.3.6. Visual Quality

Visual Quality is related to the immediate area surrounding a project site, although within a corridor or area, multiple properties can define the visual quality of the area. In this case, the Visual Quality surrounding the project site has been analyzed in Section 12, and none of the other projects are located where they

would be anticipated to create cumulative visual impacts with the proposed project.

21.3.7. Cultural Resources

Based on the State's database of archeo sensitive areas, only one project within a mile of the project site (The Meadows at Yaphank) appears to be in a sensitive area. As that site is almost a mile from the project site and across the Long Island Expressway from the project site, there is not expected to be any cumulative impact. The Meadows at Yaphank may be visible from the Yaphank Historic District. When a visual analysis is done of the proposed project this potential cumulative impact can be evaluated.

While little of the site generated traffic is anticipated to go to the Yaphank Historic District, if many other projects are built in the area, increased traffic could result in the District. Increased traffic and exposure can have positive and negative effects. There is no anticipated drastic increase in heavy truck traffic which might shake the foundations of historic homes, which is a concern in more urban settings when historic buildings are adjacent to streets. Yet, increased vehicular traffic affords the Town an opportunity to erect signage and beautify streetscape to encourage appreciation of the community. Local zoning can control encroachment that could occur in and around the District due to increased activities.

21.3.8. Community Services and Utilities

Water and wastewater were addressed under water resources, above.

Electricity and Natural Gas

The energy requirements of the other projects, and the degree to which their projects will provide onsite energy generation and/or incorporate energy efficiency is not known. Each other project will have to verify whether capacity is available for their specific project.

According to the request letters sent to LIPA and National Grid for the proposed project, they have the capacity to serve the energy needs of the proposed project.

As it is anticipated that the proposed project (whose stated goal is to be a net zero

energy project) will be more energy efficient and generate more onsite energy than addressed in this DGEIS, some of that capacity should be available to serve other developments.

Solid Waste

The solid waste generation of the other projects is unknown. Residential projects will pay taxes to offset the cost of collection and disposal and the non-residential projects will utilize private carters to collect and transport the solid waste to permitted facilities.

Emergency Services

The emergency service needs of the other projects are unknown. However, each of the emergency service providers would receive additional tax revenues from each development to offset additional costs to serve the developments.

21.3.9. Economic Impacts

The economic impacts of the proposed project are positive. The economic impacts of the other projects would also be expected to be positive as they would generate jobs, residents with discretionary income, property taxes, and in some cases sales taxes.

21.3.10. Construction Impacts

The construction of the proposed project would occur over an extended timeframe, with specific dates not known at this time. Similarly, as it is unknown when approvals would be granted for other projects in the area, it is unknown when their construction would occur. In the event that construction of multiple projects is planned for the same time frame and impacts the same roadways, additional analysis would need to be done to determine if any cumulative impacts would arise.



