

# 1.0 EXECUTIVE SUMMARY



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This Brookhaven 2030: Trends and Conditions report provides a review and analysis of Brookhaven's regional context, history, demographic, market, land use, zoning, transportation and infrastructure conditions. Along with the Brookhaven 2030: Issues and Opportunities Report, Brookhaven 2030: Environmental, Cultural and Open Space Resources (ECOS) Report and the Brookhaven 2030: Development Patterns Report, this report provides a foundation of information leading up to and informing the Comprehensive Plan's goals, recommendations, policies and strategies.

The Brookhaven 2030: Comprehensive Plan will establish goals and recommendations to guide the community to a more sustainable future by holistically considering social, economic and environmental factors that influence the development of land, and the provision of infrastructure and public services. The Comprehensive Plan builds upon the work of Brookhaven's Department of Planning, Environment and Land Management (PELM), and incorporates policies, strategies and specific tasks which will provide a framework to support sustainable development for the next two decades. This Plan will guide elected officials, PELM staff and the residents of Brookhaven into a more sustainable future.

## CONTEXT

The Town of Brookhaven is located in central Suffolk County, New York and extends from the Long Island Sound along the North Shore to Fire Island, a barrier island located off of the South Shore. Brookhaven is located approximately fifty miles from New York City and is part of and influenced by the New York Metropolitan Area, the largest MSA in the country. According to the 2000 US Census, Brookhaven has a total area of 531.52 square miles, which is composed of 272.23 square miles

of water and 259.29 square miles of land, making it the largest town in the State of New York.

Since the 1950's, Brookhaven, as well as greater Suffolk County has evolved from its former makeup of rural communities with agricultural lands to a highly suburbanized geography, built on subdivided farmland, transected by busy county roads and highways. Brookhaven has engaged in a number of planning efforts over the past fifty years, from regional to local levels, focusing on hamlets, sensitive environmental areas, roadway corridors and Main Streets, to address the monumental growth that has been occurring in the Town. These intensive planning efforts will be utilized in Brookhaven 2030.

## DEMOGRAPHICS AND MARKET ANALYSIS

As compared to the rest of Suffolk County, and Long Island (Nassau and Suffolk Counties), Brookhaven has experienced a relatively high rate of population, household and income growth since 1990. The Town is well-educated, family oriented with a relatively high proportion of the population under the age of 25, although the population has grown older since 1990. Brookhaven's population is projected to grow by about 3,000 people per year over the next five years, and an aging population is forecasted to continue through 2012. Long-term projections indicate that the Town's population could increase by more than 100,000 people over 2000 figures by 2030.

In the near term, Brookhaven, Suffolk County and Long Island are all expected to experience continued income growth, albeit at a somewhat slower rate than in the past. There will be a decrease in the proportion of households in low-income brackets and an increase the percentage of households in high-income brackets. Compared with Suffolk County and Long Island, Brookhaven is

projected to experience a greater percentage increase in upper-income households.

Labor market and employment analyses indicate that a relatively high percentage of Brookhaven residents work in construction, retail trade, education, health care, accommodation and food services, and public administration as compared to rest of Suffolk County and Long Island. Employment growth is projected to continue in Brookhaven. Over the next five years, projections indicate that all major industry sectors will add jobs, with strong growth in health care, retail trade and educational service jobs.

## LAND USE ANALYSIS

The land use analysis indicates that open space, consisting of vacant land, public parks, recreation and conservation land, agricultural land and private parks and recreation, is the most prevalent land use in Brookhaven, totaling just over 40% of Brookhaven's total land area. Vacant land comprises the largest portion, 46%, of Brookhaven's open space. Development of these parcels is allowed and can have a drastic impact on the quality of life for Brookhaven residents, making vacant land, one of the most important discussions of Brookhaven 2030. However, 22% of vacant land falls within the Pine Barrens Core Preservation Area, where no new development is permitted.

Approximately 41% of open space in Brookhaven is classified as public parks, recreation and conservation (PPRC) land, a large proportion of which lies along the North-South axis in the central part of Brookhaven. Many vacant parcels fall within this area as well as in the eastern portion of Brookhaven, presenting a great opportunity for creating a connected open space network through the acquisition of vacant parcels. The western portion of Brookhaven lacks large contiguous areas of

PPRC land, but rather has a scattering of small pocket parks. Only 3% of Brookhaven's open space serves as private parks and recreation land. This land is privately held, and may be sold or redeveloped in accordance with its underlying zoning.

Much of Brookhaven's agricultural land was developed over the past century as the Town shifted from an agrarian to suburban culture, leaving Brookhaven with 8 remaining square miles. Although development pressures continue, government acquisitions has protected approximately 3 square miles of agricultural land. Agricultural land has been shifting to an industrialized format. Regulations and standards of preserved farmland and the balance between their economic, cultural and environmental value is an important issue to address in Brookhaven 2030.

Residential development is the second largest land use in Brookhaven, totaling almost 40% of Brookhaven's total land area. Brookhaven's residential development has taken on a diversity of patterns and forms, dependant upon the era in which the development was built and the geography of the land. Approximately, 93%, of residential development in Brookhaven is single-family, with the remaining 7% devoted to multi-family units, apartments, condominiums and co-ops. This indicates a lack of housing diversity, making it difficult for single, low-income, or elderly residents to find housing in Brookhaven that supports their lifestyle and needs.

Community and Public Services ranks third among land uses in Brookhaven, encompassing just over 12% of Brookhaven's land area. These lands, consisting of government, educational, cultural, religious, hospital, health and welfare, and emergency service facilities, as well as land for public utilities, are fairly evenly distributed throughout the Town, except for the area north of CR111 which is in the Pine Barrens Core. The Town



also has one Indian reservation, Poospatuck Reservation, located in the community of Mastic which is included in this land use category.

Commercial, office and industrial uses occupies less than 6% of Brookhaven's land. Commercial and office uses are concentrated along major roads, mainly in the form of auto-oriented strip malls and large retail centers. A few small, pedestrian-oriented commercial districts exist in Brookhaven, including a portion of Main Street in Center Moriches. Industrial land is primarily concentrated near the Long Island Expressway and Long Island Rail Road corridors due to infrastructure needs.

Encompassing only 0.25 square miles, parking as a stand alone use occupies less than 1% of Brookhaven's land area; however, this does not include parking associated with any other land uses, including the large parking lots required for retail "Big Box" centers. These lots are problematic, as large areas of impermeable, paved surfaces lead to polluted stormwater runoff, contaminating local water bodies.

### ZONING ANALYSIS

Brookhaven is currently zoned according to Euclidean codes which segregate specific land uses into districts, dictating patterns of sprawl that are apparent throughout Brookhaven. The current zoning map does not present a strategic distribution of mixed-use zoning that supports and encourages residential, retail, recreational and office uses all within close proximity to each other, in a pedestrian-friendly development. Rather, it demonstrates the incremental growth that Brookhaven has experienced in recent decades resulting in its current land use patterns.

Residential zoning districts comprise 90% of Brookhaven's land area, and usually range in minimum lot size from

one-fifth an acre to ten acres. The MF Multi-family residential district allowing a greater concentration of units on a particular lot and are encouraged to be located near a pedestrian-oriented, Main Street Business district. The Town's zoning also makes provisions for housing of residents aged 55 and over.

Business districts, located along major thoroughfares, has encouraged the patterns of sprawl seen in Brookhaven today. The Town is advocating the adoption of the J-6 District (Main Street Business District) in places that currently have no hamlet centers or traditional downtowns to encourage "innovative, mixed-use development as an alternative to conventional, modern, use-segregated developments." By encouraging the use of this district, the Town is promoting creative, pedestrian-friendly development reminiscent of traditional downtowns.

Brookhaven's portion of Fire Island National Seashore (FINS) is divided into three unique zones: RD Residential District, CD Commercial District, and OFD Oceanfront Dune District, to promote the health, safety and welfare of residents and visitors of Fire Island, as well as protect the barrier beach. Fire Island is regulated by multiple federal, state, county, and local entities, and the hierarchy in which these agencies work to enforce zoning regulations is unclear.

The Town also utilizes zoning tools to encourage and/or prohibit specific development practices. The Town Board, in consultation with the Historic District Advisory Committee, has the power to create historic districts; the Transfer of Development Rights program is used to promote orderly growth and development while maintaining quality open space; the wetland overlay restricts development within portions of a site designated as wetlands and lands under water or surface water.; and *Coastal Erosion Hazard Areas* established a coastal

erosion management program.

The Central Pine Barrens District promotes the Town's intentions to protect the environmentally sensitive Pine Barrens, through a series of planning mechanisms including the transfer of development rights (TDR's), Residential Overlay Districts, Planned Development Districts, and incentive zoning. However, these provisions only protect the Pine Barrens Core, and leave the Pine Barrens Compatible Growth Area more susceptible to damaging forms of development.

### ZONING AND LAND USE OVERLAY ANALYSIS

An analysis of the current zoning in relation to existing land use reveals that approximately 81% of vacant land is zoned for residential development; however, due to legislation restricting growth in the Pine Barrens Core, only 76% of vacant land zoned residential can be developed. This land is dispersed throughout the town, including sensitive areas such as the Pine Barrens, critical resource areas and coastal zones. The Manorville area south of County Route 111 contains many vacant parcels but lacks many community and public services. This sprawling development typically results in a high cost to the Town and its taxpayers in order to provide the necessary infrastructure, as well as intangible costs due to the loss of open space, habitat destruction and an increased dependency on the automobile, all contrary to the practices of sustainable development.

Approximately 18% of developable vacant land is zoned for industrial use, therefore, if all vacant land outside the Core zoned for industrial is developed in this manner, Brookhaven's industrial land would more than double. As the Brookhaven 2030: Issues and Opportunities Report discussed there is conflicting feelings over the development of industrial parcels, making this an important issue to further examine.

The town does not have an agricultural district, so all land currently used for agricultural purposes is zoned for some other use, primarily residential development. This conflicts with the desire of Town stakeholders, who would like to protect the remaining agricultural land in order to preserve the Town's character.

### TRANSPORTATION ANALYSIS

Commuting patterns for Brookhaven residents are typical for a United States suburban community. The average commute time is approximately 30 minutes; about 96% of owner-occupied households have one or more vehicles, as compared to about 86% of renter-occupied households; 60% of residents work outside Brookhaven; 70% of the workforce in Town are residents; 91% of residents drive to work, while 4.5% use public transportation; and the rate of carpooling has declined since 1990.

The Town contains approximately 2,800 miles of roadway owned and maintained by various jurisdictions. Four roadway functional classes are found within Brookhaven: Principal Arterials, Minor Arterials, Collector Roads, and Local Roads. Major improvements to the transportation infrastructure in Brookhaven are slated for the next few years. Principal arterials are often aligned with large swaths of commercial land. Middle Country Road (NY 25) has the greatest number of traffic safety concerns, and NY 112 (Port Jefferson-Patchogue Road/ Medford Road) follows as a close second. The majority of the highest accident intersections are along major State and County routes in the most developed areas of Brookhaven.

This analysis has indicated a need for greater bicycle and pedestrian provisions within Brookhaven. Although the Town currently has a plan for suggested on-road bike routes, there are only a few built which lack connectivity, posing a safety issue that inhibits many residents from

embarking on this form of transportation. There are also designated paved and unpaved off-road bike paths. Some of these paths require a permit to use and are found in parks and conservation areas. A few off-road bike paths are planned or funded, at least one of which is already under construction. Pedestrians face similar issues to bicyclists. Due to the historical development of Brookhaven as a rural agricultural region, most of the major roadways and the local roads within many post-WWII subdivisions were not designed with pedestrians in mind, lacking sidewalks and crosswalks and connectivity in many locations.

Within the Town of Brookhaven, there are four “Park and Ride” lots to support and encourage the formation of carpools. These lots are strategically located near major roadways, allowing commuters to drive there individually to park and from there form carpools with other commuters. None of the park and ride lots are directly served by public transit.

Due to the historical development pattern of the New York City metropolitan region, the commuter rail network typically forms a “hub and spoke” configuration centered on Manhattan. As a result, the LIRR routes tend to be oriented in an east-west pattern, with no rail routes oriented in a north-south pattern. The Town of Brookhaven contains three LIRR routes, a northern, a middle and a southern route, that traverse the Town in an east-west orientation, providing the Town with eight commuter railroad stations. Ronkonkoma is the most used station, due to its electrified service as compared to diesel service on the other two routes, and is one of the most used LIRR stations overall. Freight transportation also utilizes these tracks. Two abandoned routes also exist in Brookhaven; with a bike path is planned for one. Some residents would prefer to see railroad service restored.

## INFRASTRUCTURE ANALYSIS

Infrastructure refers to the facilities and services needed to sustain industrial, residential, commercial and all other land use activities. One trend that holds true for all infrastructure components in Brookhaven is the obvious concentration of various service facilities towards the western part of the Town, where there is a higher concentration of residential development. Smart growth or sustainable development practices recommend that new development be located where existing infrastructure exists. This will have significant cost savings for the developer and the community. It also is a strategy to combat sprawl, protect open space and natural resources, and lessen vehicle miles traveled.

Brookhaven’s water supply is regulated by the federal Safe Drinking Water Act (SDWA), which sets national health-based standards for drinking water. These standards are met through the joint effort of the EPA, State, and Local officials of the County and the Town. Brookhaven’s drinking water is entirely dependant upon groundwater, and is served by the Suffolk County Water Authority. Distribution zones have been established based on topography in order to provide a reasonable water pressure to every service. Wells are drilled into the ground to capture water from the Upper Glacial and Magothy aquifers. Over 20% of the wells were rated medium-high to very high for microbials as a result of microbial sources in un-sewered areas; almost 70% were rated as high or very high for susceptibility for nitrates; approximately 10% of the wells were rated as medium high to very high for pesticides and almost 65% of the wells were rated as medium high to very high for susceptibility of volatile organic compounds. When wells are in need of remediation the SCWA takes action to filter and purify the water, however the best action is to be proactive and protect the wells from contamination.

Wastewater, also known as sewage, is subject to Local, State and Federal regulations and standards. The federal Clean Water Act, amended in 1981, established basic wastewater standards for regulating pollutant discharges in the US waters. In Brookhaven, wastewater and sewage is treated either on site, typically through septic systems, or through one of several sewage systems. Most of Brookhaven’s sewer system operation and maintenance functions are now handled by the Suffolk County Department of Public Works through its Suffolk County Sewer Agency (SCSA) which permits the sewer systems and the treatment plants and sets standards to which the systems must be designed and operated.

Currently the SCSA oversee fifteen sewer districts in the Town and two more are proposed. The Suffolk County Sewer Agency and the Legislature will attempt to limit the formation of new sewer districts to ‘Smart Growth friendly’ locations. However, additional legislation will be needed to help further achieve this goal. There are also many private sewer systems in the Town. Condominiums and apartment complexes that exceed density of SCDHS discharge limits require independent sewage treatment facilities.

In order to protect the integrity of the groundwater where wastewater is discharged through on-site disposal systems Groundwater Management Zones were delineated in Suffolk County by the “Long Island Comprehensive Waste Treatment Management Plan.” These zones identify differences in regional hydrogeologic and groundwater quality conditions. There are four Groundwater Management Zones within the Town of Brookhaven.

Approximately 70% of the nation’s water pollution comes from stormwater and other indirect “non-point” sources. Polluted stormwater flows directly into local

waterbodies, and can ultimately affect groundwater, and therefore Brookhaven’s drinking water quality. There are several programs which address stormwater management in Brookhaven: the Stormwater Pollution and Stormwater Management Program, a Federal program; and the South Shore Estuary Reserve Program, a State program.

As the Town’s population continues to grow, clearly understood, easily implementable, and cost efficient measures to manage the waste stream is an important planning consideration. Waste management expenditures are significant, so any inefficiencies raise the cost of collecting, sorting, and managing waste streams. Improperly managed waste can negatively effect community character, including the pollution of beaches, which can lead to tourism and economic decline.

Brookhaven’s Department of Waste Management oversees the Town’s Waste Management Facilities in Yaphank. This includes the landfill, Waste to Energy Plant, Materials Recycling Facility, Household Hazardous Waste Facility, and Municipal Solid Waste Transfer Station. DWM also manages curbside waste and recycling collection, the Yard Waste Program, the Manorville Compost Facility and roadside clean up and abandoned buildings demolition, waste management contracts and permits, town code enforcement applicable to waste management, and public information and other related programs on waste management for residents, businesses, schools and institutions throughout the Town.

The DWM has had success minimizing the amount of garbage by utilizing better recycling techniques. The waste volumes collected from residential homes have not substantially increased in the last 3 years despite some increases in population. Even with potential extensive development in the Town, the transfer station in Yaphank

has enough capacity to handle the increased waste amounts tied to the future probable population increase during the next two decades.

National Grid manages the electricity network on Long Island under an agreement with the Long Island Power Authority (LIPA). Not all of the electric power available to Long Island is generated on-island and efforts to bring additional power to Long Island through the Long Island Sound have been subjected to public and political opposition. Overall, LIPA has the necessary resources to meet current electrical needs in the Town of Brookhaven, and they have implemented several programs to reduce peak demand. LIPA's current plan indicates an average annual growth of 1.5% in Long Island's energy demand through 2023. By state regulations, LIPA is required to provide electricity to every housing unit. In other words, if a new development occurs in an area currently lacking an infrastructure network, LIPA will be required to run the wires to the site.

Natural gas distribution in the Town of Brookhaven is managed by KeySpan, which is now part of National Grid. KeySpan transmission mains extend through the whole town of Brookhaven primarily along the Long Island Expressway. Unlike the electrical power providers, natural gas providers in the state of New York are not obligated to furnish a gas feed to every housing unit in the area they service.

Currently, Brookhaven, as well as the entire United States relies mostly on the burning of fossil fuels (petroleum, coal, natural gas) for the majority of its energy needs. Dependency on fossil fuels is problematic due to its economic, environmental, health, and national security impacts. Renewable energy sources, such as plant materials, sunlight, wind rain, tides and geothermal heat, will result in a healthier, more sustainable society.

New York State generated 21% of its net electrical power in 2006 from renewable resources, primarily hydroelectric power. Water is a cheap source of power, causing little pollution, however it has some negative environmental impacts, affecting the habitats of the local plant, fish, and animal life. Meanwhile, the Long Island Power Authority (LIPA) has set forth a Clean Energy Initiative program, providing investments in energy-efficiency, renewable energy, peak load reduction, and a variety of research, development and demonstration projects.

The Town of Brookhaven has introduced a number of clean energy initiatives, including a wind turbine and a photovoltaic carport at Town Hall. The Town has begun replacing 100% petroleum diesel with B20, a 20% blend of biodiesel with 80% petroleum diesel, in a portion of its vehicle fleet. Brookhaven also requires all homes built after April 2008, to meet New York ENERGY STAR-Labeled Homes criteria, encouraging the highest standards in energy efficiency, using up to 30 percent less energy than conventionally built homes.

Wireless communication, primarily for cell (mobile) phones, is one of the most rapidly changing infrastructure systems. Strategic planning for wireless phone companies does not extend to 2030, as the technology changes at such a fast rate that any twenty year plans would become obsolete. Two to three year plans are more in order for this type of service.

Increasing wireless coverage area hinges mainly on installation of additional cell phone towers. Cell towers normally have an effective radius of 1-3 miles.

Brookhaven's zoning code specifically regulates the siting and installation of communication towers and antennas within the Town. This protects residential areas

and residents from adverse impacts while enhancing the ability of the telecommunications industry to provide services to the community quickly, effectively, and efficiently. Except in special cases, the towers are only permitted in the following zoning classification districts: CR, J-2 Business, J-4 Business, L-1 Industrial, L-2 Industrial, L-4 Industrial.

Although most towers installed in the next 2-3 years in the region will happen just outside the Brookhaven border, a few are planned for within the Town. In particular, along Middle Country Road (Route 25) in Coram and Middle Island, and Route 25a in Mt. Sinai and Shoreham, as well as near the Granny Road/Route 112 intersection.