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ECONOMIC DEVELOPMENT STRATEGY PLYMOUTH COUNTY, MASSACHUSETTS



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Economic Development Strategy
Town of Plymouth, Massachusetts

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1 INTRODUCTION

The Plymouth Regional Economic Development Foundation (PREDF) has retained RKG Associates, Inc. to update the economic development plan that RKG prepared for the Town of Plymouth in 2000-2001. The catalyst for the first plan was the Electric Industry Restructuring Act of 1997 (Chapter 164, Acts of 1997), which led to electricity deregulation throughout the state and the potential loss of revenue to the Town due to devaluation of the Pilgrim Nuclear Power Station. Last year, the present owners, Entergy Corporation, announced that the plant will cease operations in May 2019. Accordingly, Plymouth wants to prepare for the economic and fiscal consequences of decommissioning Pilgrim Station. Toward that end, RKG has been asked to provide an economic base and market conditions analysis, fiscal impact modeling, and related services for a new economic development strategy for the Town.

Due to the pending closure of Pilgrim Station, the Town and a variety of private groups are interested in the long-term disposition of Entergy's land. Thus, the Town and Foundation asked RKG to provide a technical review of the property to understand whether any of it has potential for economic development. In response, RKG engaged BSC Group to analyze the property's economic development suitability since BSC had also worked on the original economic development plan. BSC's conclusions on Entergy's land offers opportunities for nonresidential development and potential for mixed uses, primarily on the power station side of State Road (Chapter 5). There also is considerable conservation value as well. That said, there are other economic development opportunities in Plymouth that are more promising in the near-term. To this point, this analysis focuses on economic development opportunities throughout Plymouth.

The report is organized into eight chapters (including this one) based on topic area. The chapters include:

- Chapter 1: Introduction
- Chapter 2: Demographic Analysis
- Chapter 3: Real Estate Analysis
- Chapter 4: Retail Market Analysis
- Chapter 5: Entergy Site Analysis
- Chapter 6: Target Industry Cluster Analysis
- Chapter 7: Fiscal Impact Analysis
- Chapter 8: Implementation Strategy

The initial seven chapters focus on assessing current and potential market climate and economic conditions within the Town and surrounding region. This assessment provides the foundation from which the implementation strategy was formed. The implementation plan incorporates these findings with the Perspective provided by elected leaders, Town staff, Foundation board members, business leaders, and key citizen stakeholders from Plymouth. To this point, the implementation plan—including the location-based recommendations for each of the Town's commercial centers—provides RKG Associates' and BSC Group's professional recommendations on how to maximize the Town's economic development potential to ensure the long-term economic and fiscal sustainability for current and future Town residents. These recommendations are intended to help the Town's leadership make informed decisions about what future economic development endeavors to pursue, and how best to pursue them.

2 SOCIOECONOMIC ANALYSIS

A. INTRODUCTION

The socioeconomic analysis provides the foundation for understanding a community's demographic trends, its economy, and its potential for growth. The analysis focuses on conditions within the Town of Plymouth, but includes comparative data for Plymouth County and the surrounding region. The surrounding region selected for this comparative analysis includes the Counties of Barnstable, Bristol, and Norfolk. Additionally, several local towns near or within Plymouth County boundaries are called out for selected socioeconomic characteristics within Plymouth County, which include:

- Town of Bourne (not within the county boundaries),
- Town of Carver,
- Town of Duxbury,
- Town of Kingston,
- Town of Marshfield,
- Town of Middleborough, and
- Town of Wareham.

The data presented provide insight into local and regional growth trends as well as projected future growth patterns. These factors provide the framework for understanding the economic activity in the Town of Plymouth.

B. MAJOR FINDINGS

- ***The Town of Plymouth's population is concentrated in older age cohorts.*** In 2000, approximately 35% of the Town's population was over 45-years old (18,155 of 51,701 persons). By 2016, the 45-year old and over cohort accounted for nearly 39% of the Town population. The number of people over 45-years old increased by 9,944 during this period, while all other age cohorts declined by 3,797 people. While similar to local communities and the greater region, it influences the Town's economic development potential, particularly in industries that attract a younger workforce.
- ***A decline in persons within the prime working age groups living in Plymouth indicates that job opportunities and housing options are needed for this population.*** Persons aged between 24 and 45 years-old declined by 1,433 persons, a decline rate of 17.3%. This age cohort is particularly important as it typically includes young professionals and family forming households ascending their respective careers. Projection data indicate the older age cohorts are will continue to account for most of the town's population growth into the near future. As noted, this influences economic development efforts.
- ***The town's 2016 population base has higher education achievement level than it did in 2000.*** During the study period, the number of people in Plymouth with a Bachelor's degree increased from 6,233 people to 9,100. Adults with a bachelor's degree account for 22% of Plymouth's

population over 25. Similarly, the share of town residents with a Graduate/Professional Degree increased from 8.5% in 2000 to 13.1% in 2016. Overall, the population over 25 in the town has seen robust growth in education attainment levels. This growth in more educated residents benefits the town's economic development efforts in retaining, expanding, and attracting businesses with high-skill/high education positions.

- ***Increasing housing values (faster than inflation) and new housing construction at the highest price points in Plymouth are displacing modest income households and accommodating wealthier households.*** The Town of Plymouth has many households that are well-established within their careers and receiving higher incomes. This finding is commensurate with the high concentration of older age cohorts. Between 2010 and 2016, the age group of persons between 45 and 64-years old experienced a growth rate of 6.9%. During the same period, the number of households earning over \$100,000 increased at a similar rate. In contrast, the number of households that earn below \$75,000 declined by almost 2,500 during the same period. From an economic development perspective, these findings may result in increased opportunities to promote entrepreneurial activity in Plymouth. The combination of a growing older population base and a more affluent household base suggests greater potential for Plymouth residents to be interested and willing to start/grow businesses.
- ***The Town of Plymouth has experienced strong employment and establishment growth since the start of the Great Recession (December 2007 to June 2009).*** The town experienced a net increase of 1,702 jobs (8.6% increase) since 2009. Additionally, establishment growth has been strong in the Town of Plymouth, with contrasting trends in Plymouth County. Plymouth experienced a net increase of 130 companies from 2007 to 2015, constituting a 17.0% growth rate. This is twice the growth rate for employment during the study period. In contrast, Plymouth County experienced a net decline of 811 companies (3.2% loss) during the same period despite a 3.7% increase in employment. This data indicates the Town of Plymouth has been very successful at attracting and cultivating new, smaller businesses while the county has seen stronger growth from larger firms and internal expansion (i.e. Ocean Spray).

C. DATA SOURCES

To complete this analysis, the consultant used U.S. Census Bureau data for socioeconomic characteristics in 2000, 2010, and ESRI Business Analyst Online (ESRI BAO) data for 2016 and 2021 projections. ESRI BOA is a nationally recognized provider of demographic and economic data at various geographic levels and their estimates and projections are based upon data produced by U.S. Census Bureau. RKG also used socioeconomic data from the EDSAT and UMass Donahue Institute analyses.

D. DEMOGRAPHIC TRENDS

1. Population Trends and Projections

Information from the U.S. Census Bureau and ESRI indicates that the Town of Plymouth has experienced significant population growth since 2000. The Town's population increased from 51,701 residents in 2000 to 57,848 in 2016 according to estimates for an increase of 11.9%. Plymouth's population increased by nearly 7.6% from 2000 to 2010, and an additional 4.0% from 2010 to 2016. Projections by ESRI indicate that the population will increase to 59,724 residents by 2021. These gains are greater in percentage terms

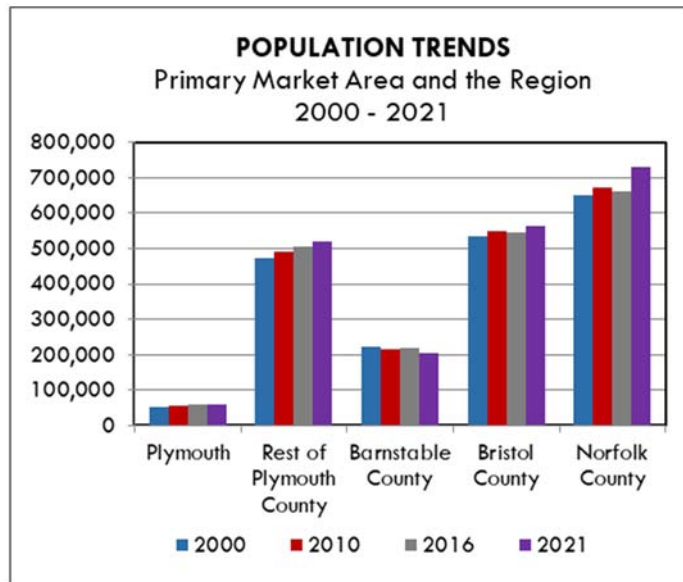
than Plymouth County during the same period. Between 2000 and 2010, Plymouth County experienced a population increase of 17,962 residents (3.8% gain) and an additional 12,897 residents (2.6% gain) from 2010 to 2016. By 2021, the population for Plymouth County is projected to increase to approximately 519,998 residents. This population growth rate is commensurate to projected gains within several local town areas through out the County, such as: Carver, Kingston, and Middleborough Town¹.

Despite the notable gains, Plymouth County remains behind growth rates for the selected counties such as Norfolk and Bristol County. Barnstable County, however, has experienced significant declines in population since 2000 (Figure 2-1). Projections by ESRI indicate that the population for Barnstable County will decrease by -12,072 residents (-5.6% decline) while population is projected to increase throughout the surrounding region.

2. Population Age Distribution

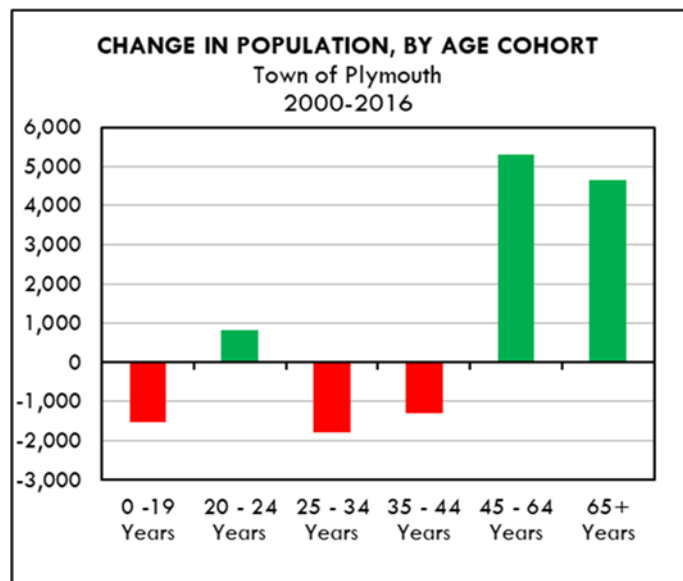
The Town of Plymouth’s population is concentrated in older age cohorts. In 2000, approximately 35% of the Town’s population was over 45-years old (18,155 of 51,701 persons). By 2016, the 45-year old and over cohort accounted for nearly 49% of the population. The number of people over 45-years old increased by 9,944 during this period, while all other age cohorts declined by 3,797 people. The cohort of people aged 20 to 24-years old was the only other to experience a net increase during this period. In comparison, persons aged between 25 and 44-years old declined by 1,433 persons, a decline rate of 17.3%. Regionally, each County evaluated during the same period experienced similar trends (Figure 2-2 & 2-3). For instance, the rest of Plymouth County during this period experienced a net gain of nearly 40,905 persons within the age cohort of 45-64 years-old. Besides the Town of Plymouth, Marshfield, Middleborough, and Wareham experienced gains involving the same age group of at least 2,000 persons or above².

Figure 2-1



Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

Figure 2-2



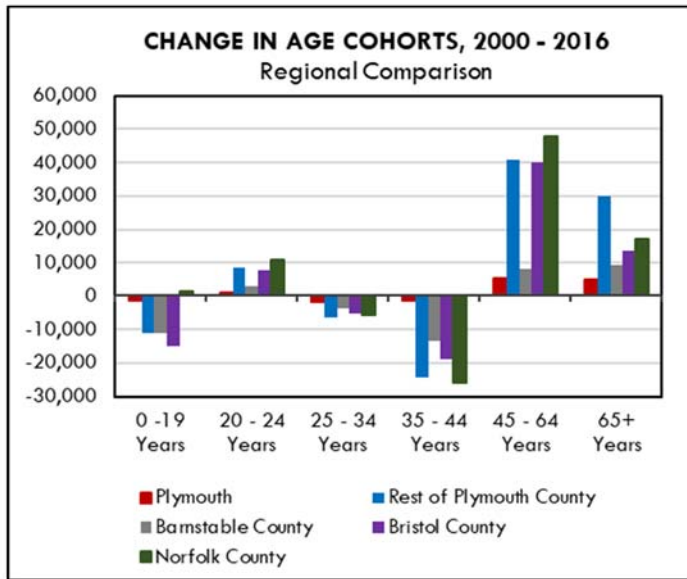
Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

¹ See Appendix

² See Appendix

The 25-44 age cohort is particularly important as it typically includes young professionals and family forming households ascending in their respective careers. During this period, couples are getting married and having children as well as focusing on career advancement, school choices for their children, and subsequent housing need evolution. They bring a certain civic energy and vibrancy to a community and its labor force, which is beneficial economically. A decline in persons within the prime working age groups living in Plymouth indicates the job opportunities and housing options are limited for this population. However, the Massachusetts Department of Labor and Workforce estimates Plymouth’s employment base has increased since 2000. When combining the two data points, it is likely that the Town has limited housing options priced appropriately for the jobs being created. The pricing differential of new construction versus existing housing, which will be discussed later in the chapter, corroborate this finding. To this point, economic development growth in the future will be impacted by the availability of housing locally and regionally.

Figure 2-3



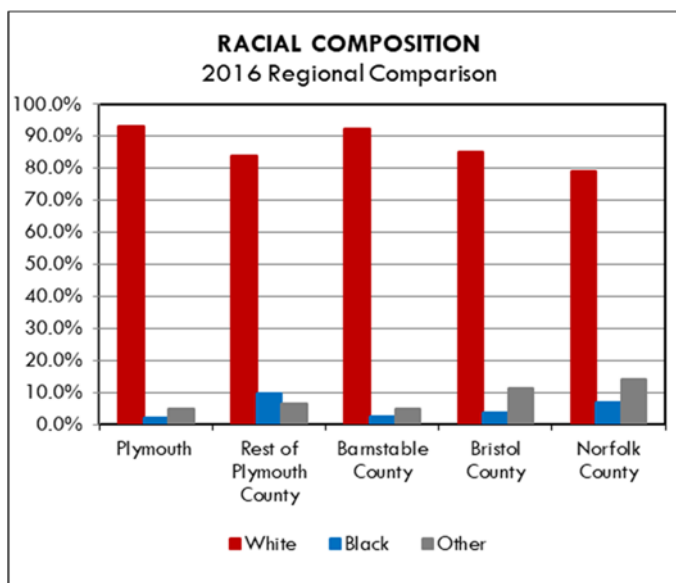
Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

Population forecasts indicate the older age cohorts are projected to continue to account for most of the Town’s population growth over the next 5 to 10 years. This is corroborated by data provided by the larger residential developers active in Plymouth, as newer large-scale developments are attracting very few families with children. Given that most persons 65+ years are retired, continued having most residential development that targets more established households likely will limit the economic development potential of the town.

3. Race & Ethnic Composition

Most of the population (93.2%) in Plymouth is classified as white. While the surrounding region generally has similar characteristics, the rest of Plymouth County has a notable concentration of African Americans (9.5%) and other nonwhite persons (6.6%). Both Brockton (not analyzed for this effort) and Wareham (11.1%) have higher concentrations of nonwhite residents³. Additionally, Bristol (11.2%) and Norfolk (14.2%) counties diversity comes primarily from share of the population that is Latino. These counties are the most diverse among the other regional areas and is commensurate with the concentration of Latino population in each.

Figure 2-4



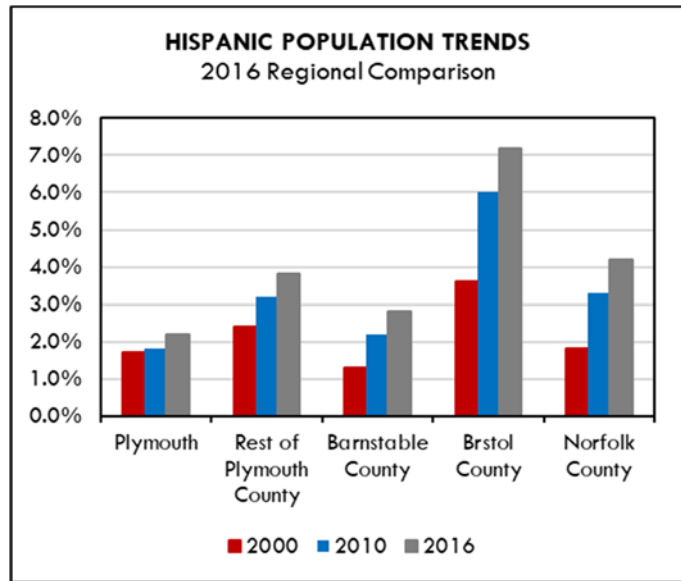
Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

³ See Appendix

This disparity is due, in part, to the influence of those counties' urban centers, which constitute a larger portion of their total population base.

Since 2000, the Town of Plymouth and the surrounding region has consistently experienced an increase in the Latino population, most notably in Bristol and Norfolk County (Figure 2-5). In 2016, Bristol County had the largest concentration of Latino persons (7.2%) compared to the surrounding region while Norfolk County had a concentration of 4.2%. This is the most notable finding in terms of diversity as it pertains to housing. The Town of Plymouth is the least diverse in comparison to the surrounding region and is commensurate with the existing housing diversity that mainly attracts wealthier individuals who can afford households that are priced higher. Ultimately, higher population diversity has the potential to impact housing patterns as multi-generational and extended family households are more common among first and second-generation immigrant families. Eastern Massachusetts has experienced steady growth in persons of Latino, Brazilian, Portuguese, and Eastern European descent.

Figure 2-5

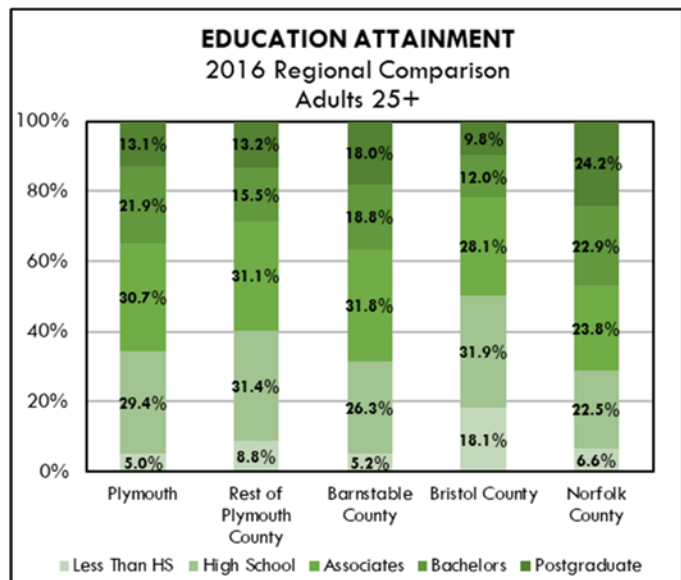


Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

4. Education Attainment

Plymouth's 2016 population has higher education attainment levels than it did in 2000. During the study period, the number of people with a Bachelor's Degree increased from 6,233 people to 9,100. Person 25 years and older with a Bachelor's Degree account for 22% of Plymouth's population. Similarly, the share of town residents with a Graduate/Professional Degree increased from 8.5% in 2000 to 13.1% in 2016. Overall, the population over 25 years old has seen robust growth of adults with education attainment levels. This growth in educated residents benefits the town's economic development efforts in retaining, expanding, and attracting new businesses with high-skill/high education level positions. Currently, the Town has experienced an increase in the number of adults with a high school/GED diploma, but less than a full college education.

Figure 2-6



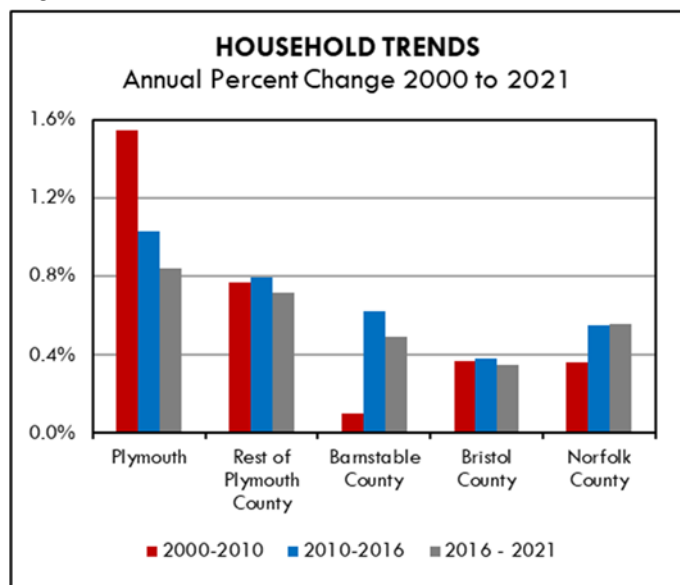
Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

Overall, education attainment for Plymouth residents is more diverse than the surrounding region. While having the lowest concentration of residents with less than high school diplomas, Plymouth falls between less urban communities such as Bristol County, which has fewer college educated residents, and closer-in suburbs to Boston such as Norfolk County, which has more than 50% of adult residents with a Bachelor’s Degree (Figure 2-6). Town residents tend to have higher education attainment than residents living outside the Town in Plymouth County. All that said, the data suggests there are opportunities across several skill level jobs and occupations within the Town of Plymouth. Education and workforce development are robust in Plymouth. In addition to the traditional colleges and universities in the Greater Boston area, there are regional institutions and colleges that offer non-traditional, continuing education, and workforce development opportunities. There are programs and curriculum at Quincy College, Curry College, Bridgewater State University and Cape Cod Community College to expand student skill levels and enhance opportunities for employment. Additionally, the institutions work with local businesses to offer internships and employment while a student is enrolled to gain experience. These are valuable resources when refining business retention and recruitment efforts, as a trained, qualified workforce is frequently noted by site selection professionals as the most important site selection criterion.

5. Household Formation Trends & Projections

Like population trends discussed earlier in this chapter, Plymouth’s household formations experienced an increase between 2000 and 2010 of 1.5% annually. During the same period, Middleborough experienced an increase at a higher rate of 2.1% annually.⁴ Since then, household formations in Plymouth and the rest of Plymouth County have increased at a slower rate of 1.0% and 0.8% respectively through 2016. Additionally, the surrounding region experienced slower household formation growth rates during the same period. Projection data indicates that total households will continue to increase at a similar rate throughout the surrounding region (Figure 2-7). A comparatively slow increase may suggest that fewer young adults and seniors chose to live independently due to financial reasons or limited housing options. From an economic development perspective, the slower household formation rates are indicative of comparatively slower job growth, which is discussed later in the Economic Base section of the Chapter. Ultimately, it also indicates that population growth during this period did not generate the same demand for housing and is commensurate with the decline in young to mid-career professionals within the age cohort of 25-44 years old.

Figure 2-7



Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

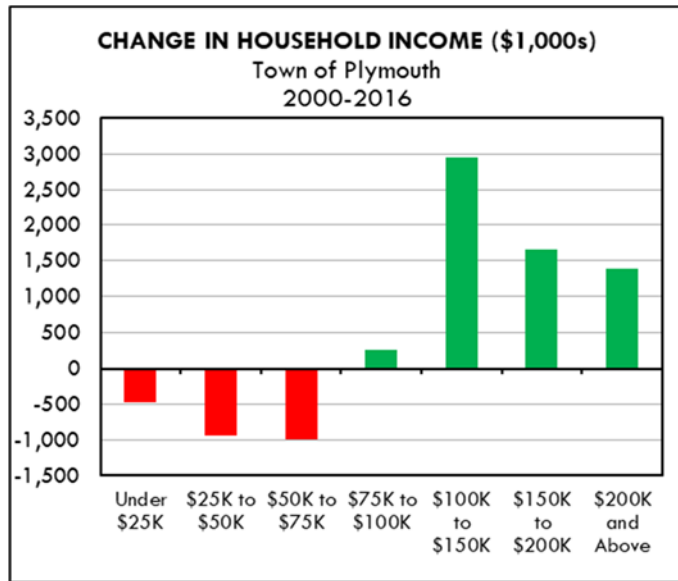
6. Median Household Income

Based on area demographics, Plymouth exhibits characteristics of a Town with many well-established, mid to late-career households with higher incomes. This finding is consistent with the Town’s concentration of population in the older age cohorts. Between 2010 and 2016, the age group of persons between 45 and 64-

⁴ See Appendix

years old experienced a growth rate of 6.9%. During the same period, the number of households earning over \$100,000 increased at a similar rate. In contrast, the number of households that earn below \$75,000 declined by almost 2,500 during the same period (Figure 2-8). While this is due in part to the impact of inflation — wages are up approximately 50% from 2000 for the average worker per the Social Security Administration — the time-value of money does not fully explain this shift. As noted later in this report, the lack of housing diversity and the changing employment base also are influencing this shift. In other words, home values are increasing faster than wage inflation and new housing construction is clustered at higher price points. Over time, this has the effect of displacing modest-income households and accommodating wealthier households.

Figure 2-8

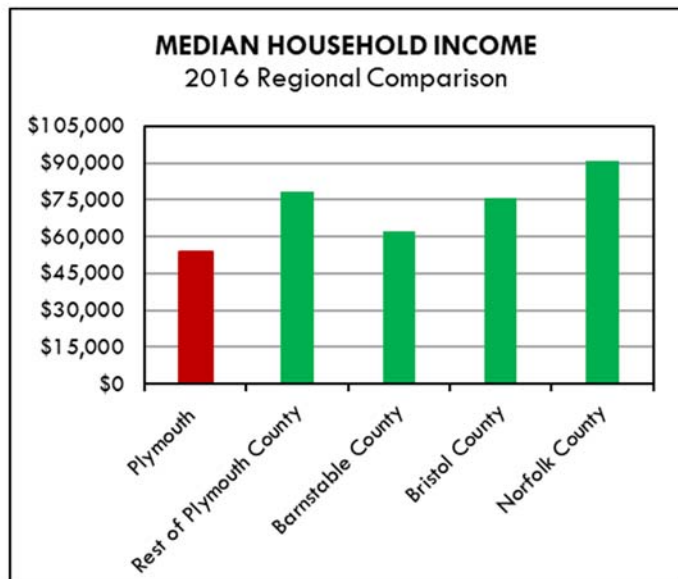


Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

From an economic development perspective, this condition may create an opportunity to promote greater entrepreneurial activity in Town. The combination of a more established population with many affluent households could reflect a greater potential for residents to be interested and willing to start new businesses. Conversely, households with lower incomes and limited income growth potential could be displaced/priced out of Plymouth, making the community less attractive to certain businesses.

Despite the growth in higher education attainment, the Town of Plymouth has a lower median household income than the rest of Plymouth County and the surrounding region (Figure 2-9). Regional competitors have median household income levels more than \$60,000 annually, with the highest being Norfolk County at over \$90,000 annually.⁵ Plymouth’s low household income is mainly due to the higher concentration of older age cohorts that are out of the labor force in addition to the decline in persons within the prime working age group. Regardless of the reasons, the lower income levels indicate both a challenge and opportunity. On one hand, lower incomes and wage rates create a cheaper labor pool for potential employers. On the other, it often means lower skill levels, which can be challenging to attract high-skill jobs.

Figure 2-9



Source: U.S. Census Bureau, ESRI, RKG Associates, Inc., 2018

⁵ See Appendix

E. ECONOMIC BASE ANALYSIS

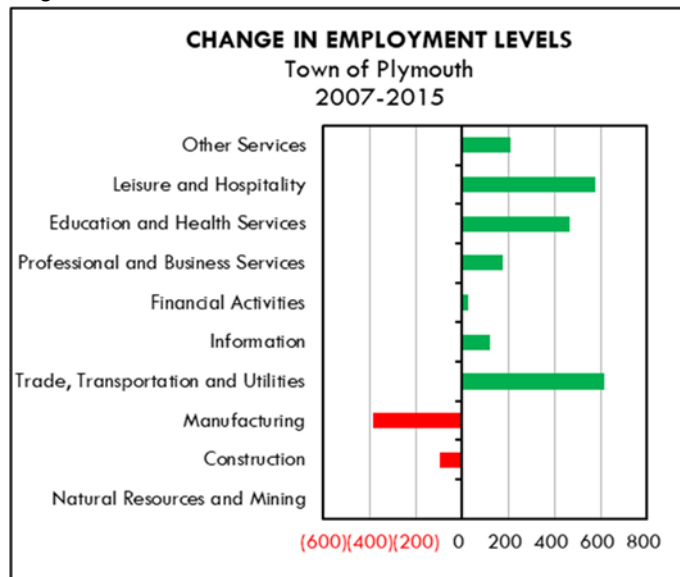
The economic base analysis examines changes in the labor force and business characteristics for the Town of Plymouth and provides comparisons to the region to understand and frame the economic opportunities for the Town. This analysis includes data on employment and establishment trends as well as occupational skills and commuting patterns, which will create a context for evaluating the local and regional development potential.

1. Employment Trends

The Town of Plymouth has experienced strong employment and establishment growth since the beginning of the last recession, which began in December of 2007 and continued for eighteen months until June of 2009. The Town experienced a net increase of 1,702 jobs (8.6% increase) during this period. However, all this growth occurred in service-based market sectors. Goods producing businesses experienced a net loss of 479 jobs since 2007. This disparity in production and service-based job recovery was consistent with Plymouth County (a net 3,582 job loss in production-based market sectors).

The trade, transportation, and utility (614 jobs) and leisure and hospitality (576 jobs) experienced the greatest increase since 2007 (Figure 2-10). On one hand, the growth in leisure and hospitality jobs reflects the town's competitive advantage as a tourism destination. Focusing economic development efforts to strengthen the Town's offerings in a changing tourism industry will ensure long-term sustainability in this sector. On the other hand, the trade, transportation, and utility sector likely will not experience sustained growth into the future. The retail market analysis presented later in the report reveals there are few sectors with sustainable sales leakage. Furthermore, the decommissioning of the Entergy plant likely will hurt the employment levels in the utility industry. To this point, it would be prudent for the Town to encourage reusing some or all the current plant site and surrounding land to encourage commercial development aimed at replacing these jobs. Reusing the remaining transmission infrastructure, as proposed by the Canadian company Emera, could offset some of these impending losses as well.⁶

Figure 2-10



Source: MA Department of Labor & Workforce, RKG Associates, Inc., 2018

2. Establishment Trends

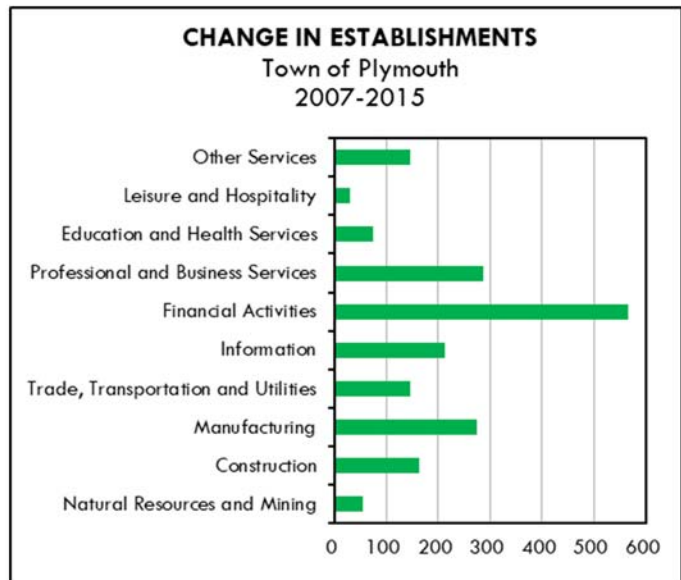
Establishment growth has been strong in the Town of Plymouth, contrasting with trends in Plymouth County. The Town experienced an increase of 130 companies from 2007 to 2015, constituting a 17.0% growth rate. This is twice the growth rate for total employment during the study period. In contrast, Plymouth County experienced a net decline of 811 companies (3.2% loss) during the same period despite a 3.7% increase in employment (Figure 2-11).

⁶ Emera did not win the state bid, and may not invest in Plymouth as proposed. However, the economic development value of a similar solution remains for Plymouth.

This data indicate Plymouth has been very successful attracting and cultivating new, smaller businesses while the County has seen stronger growth from larger firms and internal expansion. These findings support the entrepreneurial growth concept discussed earlier in this section, particularly given the growing near-retirement and semi-retirement of Plymouth residents. Strategies including co-work space, small business development support services, and mentorship programs are options to be considered in the new economic development plan.

It is important to note that production-based sectors (i.e. construction & manufacturing) experienced net establishment growth despite employment losses. Providing greater entrepreneurial opportunities to the workers being displaced within the production sectors may enable more robust establishment growth by spinning off more businesses while encouraging greater overall economic diversity in Plymouth through increased business and job growth in cottage industries (i.e. food production).

Figure 2-11



Source: MA Department of Labor & Workforce, RKG Associates, Inc., 2018

3. Occupational Skill Levels

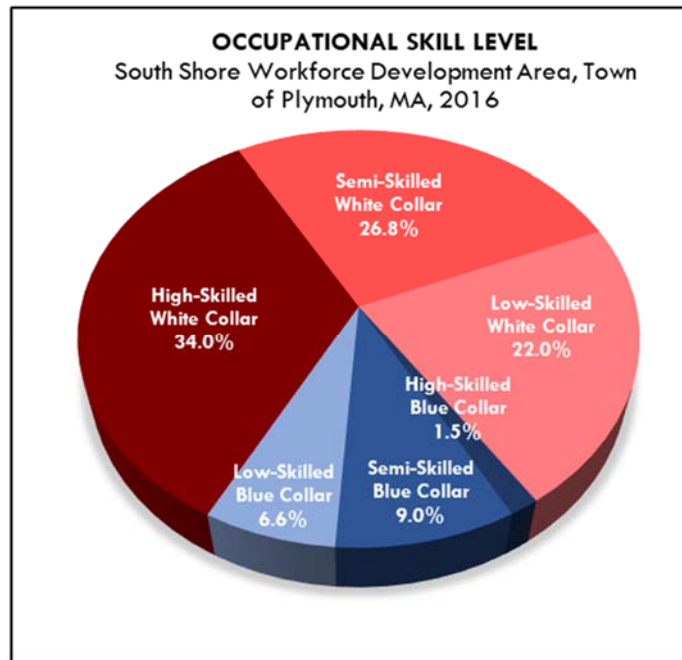
Occupational employment data for the South Shore Workforce Development Area, from which the Town of Plymouth draws its workforce, was obtained from the Massachusetts Department of Labor and Workforce Development and categorized by job type and skill level (Figure 2-12). The South Shore Workforce Development Board represents 22 cities and towns in eastern Massachusetts. The region is anchored by the City of Quincy to the North bordering the City of Boston and the Town of Plymouth to the South stretching to Cape Cod.

The 2016 occupational groupings were derived from the consultant’s knowledge regarding the skill and educational requirements of general occupational categories. Although it is difficult to group occupational categories in this manner with great precision, the results provide some indication of the distribution and diversity of skills available within the labor force. The occupational categories and their descriptions are as follows:

- Highly-Skilled White Collar (HSWC) – a professional position requiring a college degree, with supervisory/management responsibility or specialized training while working within a white-collar work environment.
- Highly-Skilled Blue Collar (HSBC) – a trade or non-professional position requiring less than an advanced degree, but some post-secondary education, a certificate, or specialized training or skill while working within a blue-collar work environment.
- Semi-Skilled White Collar (SSWC) – a professional position requiring less than an advanced degree, but some post-secondary education, a certificate, or specialized training or skill while working within a white-collar work environment.

- **Semi-Skilled Blue Collar (SSBC)** – trade position requiring less than an advanced or trade school degree but requiring some specialized training or skill, while working within a blue-collar environment.
- **Low-Skilled White Collar (LSWC)** – a position within a white-collar work environment requiring no degree or formal schooling beyond high school, but requiring some on-the-job training.
- **Low-Skilled Blue Collar (LSBC)** – a position within a trade profession requiring no advanced degree or formal schooling, but requiring some on-the-job training.

Figure 2-12



Source: MA Department of Labor & Workforce, RKG Associates, Inc., 2018

The South Shore WDA has a high concentration of white-collar laborers. The data indicates that nearly 60.8% are classified as high-skilled or semi-skilled workers (Figure 2-12). The relatively low concentration (10.5%) of labor classified as high- and semi-skilled blue-collar workers may seem to present a challenge in terms of growing and supporting production-based industries.

Additionally, this large collection of service-based employees is an asset to the Town in trying to recruit new office-based businesses. Focusing on small business and entrepreneurial development is appropriate for the size and scale of commercial properties and development scale in the Town of Plymouth. That said, preserving industrial space should be a priority, specifically the Entergy site, making it important for the Town to work with education partners to continue to develop programs that meet the needs of existing production businesses while creating a labor force prepared for the types of jobs being recruited into new space.

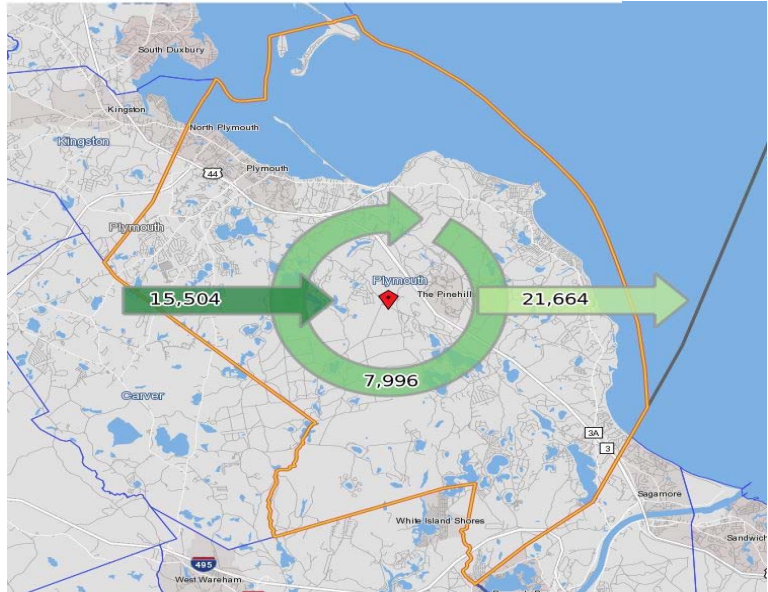
4. Regional Commuting Patterns

Commuting patterns provide information on the distance and direction that both residents and workers travel to and from work each day. This is one important factor for understanding how an area is positioned in relationship to a region’s employment centers. It also can suggest the fit between area residents and the location of jobs that meet their skill, education and wage requirements. Additionally, this analysis can provide insight for developing strategies capture additional jobs/workers that are “out commuting” from the local economy.

As shown in Figure 2-13, the Town of Plymouth has a net out-flow in terms of total employment with roughly 21,664 residents commuting out each day, while 15,504 workers commute in. This results in a net out commuting population of 6,160 workers daily. In terms of direction of travel, those commuting into Plymouth primarily travel from the northwest and west part of the region (Table 2-1). While this finding is not surprising, given the impact of the Atlantic Ocean, commuters from the West and Northwest appear to be more willing to travel longer distances for work, particularly those that commuter more than 50 miles.

Roughly 39.9% of in-commuters travel 25 miles or greater to work and 38.1% travel from the west part of the region at the same distance. On the other hand, only 11.2% of workers travel 50 miles or greater from the northern part of the region. This is commensurate with the out-flow of workers that exists within the town. Overall, this indicates that majority of Town residents travel elsewhere for employment, most likely towards the I-495 corridor and other Boston Metro destinations. However, the data indicate a greater issue for the Town of Plymouth's community and economic development efforts. Less than 8,000 of the nearly 24,000 persons employed in the Town of Plymouth—approximately 34% -- both live and work in the Town. This finding is

Figure 2-13
Commuting Inflow-Outflow Pattern (2015)



Source: U.S. Census Bureau, Center of Economic Studies (OntheMap), 2018

consistent with the data provided by real estate development professionals that limited housing variety and price points limit the attractiveness for the Town of Plymouth as a place to live and work. The income and population data indicate many households moving into the Town have higher incomes and are well-established in their respective careers. The housing market analysis (detailed more in the next chapter) show there are limited opportunities for persons with low to modest incomes seeking housing in Plymouth.

Ultimately, the Town's community development and economic development efforts need to incorporate expansion of housing types and price points. It likely will be challenging to encourage small businesses to locate within the Town if the business owner will end up living elsewhere throughout the surrounding region.

Table 2-1
Commuting Direction
Town of Plymouth, MA (2011-2015)

| | 2011 | | 2015 | |
|-----------------------|--------------|---------------|--------------|---------------|
| | Count | Share | Count | Share |
| NORTH | | | | |
| Total All Jobs | 1,633 | 100.0% | 1,789 | 100.0% |
| Less than 10 miles | 718 | 44.0% | 828 | 46.3% |
| 10 to 24 miles | 485 | 29.7% | 515 | 28.8% |
| 25 to 50 miles | 247 | 15.1% | 238 | 13.3% |
| Greater than 50 miles | 183 | 11.2% | 208 | 11.6% |
| NORTHEAST | | | | |
| Total All Jobs | 295 | 100.0% | 331 | 100.0% |
| Less than 10 miles | 291 | 98.6% | 329 | 99.4% |
| 10 to 24 miles | 2 | 0.7% | 1 | 0.3% |
| 25 to 50 miles | 1 | 0.3% | 1 | 0.3% |
| Greater than 50 miles | 1 | 0.3% | -- | -- |
| EAST | | | | |
| Total All Jobs | 801 | 100.0% | 810 | 100.0% |
| Less than 10 miles | 682 | 85.1% | 719 | 88.8% |
| 10 to 24 miles | 11 | 1.4% | 6 | 0.7% |
| 25 to 50 miles | 108 | 13.5% | 85 | 10.5% |
| Greater than 50 miles | -- | -- | -- | -- |
| SOUTHEAST | | | | |
| Total All Jobs | 3,449 | 100.0% | 3,599 | 100.0% |
| Less than 10 miles | 1,893 | 54.9% | 1,983 | 55.1% |
| 10 to 24 miles | 981 | 28.4% | 1,035 | 28.8% |
| 25 to 50 miles | 548 | 15.9% | 559 | 15.5% |
| Greater than 50 miles | 27 | 0.8% | 22 | 0.6% |
| SOUTH | | | | |
| Total All Jobs | 2,561 | 100.0% | 2,695 | 100.0% |
| Less than 10 miles | 1,155 | 45.1% | 1,288 | 47.8% |
| 10 to 24 miles | 1,146 | 44.7% | 1,236 | 45.9% |
| 25 to 50 miles | 260 | 10.2% | 171 | 6.3% |
| Greater than 50 miles | -- | -- | -- | -- |
| SOUTHWEST | | | | |
| Total All Jobs | 3,059 | 100.0% | 3,172 | 100.0% |
| Less than 10 miles | 1,390 | 45.4% | 1,416 | 44.6% |
| 10 to 24 miles | 818 | 26.7% | 911 | 28.7% |
| 25 to 50 miles | 713 | 23.3% | 708 | 22.3% |
| Greater than 50 miles | 138 | 4.5% | 137 | 4.3% |
| WEST | | | | |
| Total All Jobs | 4,124 | 100.0% | 4,487 | 100.0% |
| Less than 10 miles | 1,442 | 35.0% | 1,500 | 33.4% |
| 10 to 24 miles | 1,185 | 28.7% | 1,278 | 28.5% |
| 25 to 50 miles | 884 | 21.4% | 916 | 20.4% |
| Greater than 50 miles | 613 | 14.9% | 793 | 17.7% |
| NORTHWEST | | | | |
| Total All Jobs | 6,025 | 100.0% | 6,617 | 100.0% |
| Less than 10 miles | 1,687 | 28.0% | 1,951 | 29.5% |
| 10 to 24 miles | 1,960 | 32.5% | 2,023 | 30.6% |
| 25 to 50 miles | 1,697 | 28.2% | 1,856 | 28.0% |
| Greater than 50 miles | 681 | 11.3% | 787 | 11.9% |

Source: U.S. Census Bureau, Center of Economic Studies (On the Map), 2018

3 REAL ESTATE MARKET ANALYSIS

A. INTRODUCTION

The following chapter details the single-family and multifamily residential, office, and industrial market forces that are shaping the Town of Plymouth’s development environment. The real estate analysis examines recent real estate trends within the Town of Plymouth and is divided into two separate analyses: residential and nonresidential. Both the residential and nonresidential analysis consider factors such as: (1) market overview, (2) development trends from 2002 to 2017 as well as development prior to 2002, (3) vacancy rates, (4) absorption rates (when applicable), and (5) rental/sales rates.

In addition, RKG Associates conducted several interviews with local development and real estate professionals to understand the nuances of the Plymouth market and to gain an “in-field” perspective on the town’s investment climate. The purpose of these interviews was to supplement the quantitative data collected by RKG Associates with qualitative data from real estate professionals. The analysis answers questions regarding the contributing factors that will drive future demand for additional housing and commercial development in the Town of Plymouth?” The important perspectives garnered from these interviews are summarized throughout the chapter. Additionally, RKG Associates generated several maps for the town to identify the existing land use conditions, residential & nonresidential trends, development activity (2007-2016), and a developable land availability¹.

B. RESIDENTIAL ANALYSIS

RKG Associates performed an analysis of the residential real estate markets within the Town of Plymouth. To accomplish this, RKG obtained the parcel assessment database from the Town of Plymouth’s Property Assessor’s Data Portal. The consultant categorized the different properties by land use, as designated by the assessment database. The parcel records were sorted by the year built to determine the pace and intensity of new development activity in the Town of Plymouth.

1. Market Overview

Residential land uses account for most of the town’s development parcels. Approximately 89% of the non-exempt developed land is classified as residential development. Single family detached housing accounts for most of the town’s housing units, comprising approximately 71.3% of all residential development (Figure 3-1). Condominiums comprise a much smaller but relevant share (11.4%). In comparison, traditional apartment complexes account for less than 7% of all residential units and 1% of all land acreage consumed. Traditionally owner-occupied units account for approximately 85% of all residential units in Plymouth.

¹ All maps created by RKG Associates which involve the Real Estate Market Analysis can be found within the Appendix

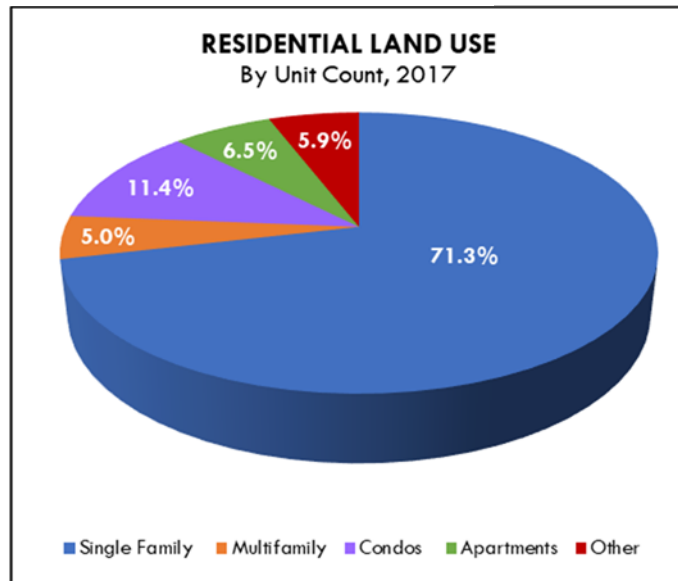
The lack of multi-family residential units is likely a constraining factor in attracting younger and more modest-income households. Specifically, the lack of housing diversity discourages those individuals that are not ready to, or capable of, buying a home in Plymouth and would prefer a rental option. RKG speculates that limited housing choice may be inhibiting the Town's ability to attract younger households.

2. Residential Development Trends

Plymouth has experienced steady but slow residential development since the last recession. In the five years leading up to the recession (2002-2006), the town experienced a net increase of 1,286 single-family units, 248 condominium units, and 111 apartments. In the ten years since the start of the recession (2007-2017), the town realized 1,044 new single-family units, 443 condominium units, and 317 apartments (Figure 3-2). It is worth noting that although the official start of the national recession was December 2007, there was a significant slowdown in residential market activity leading up to the recession. Anecdotal data indicate most of the single-family development that occurred since the recession was in the Pine Hills development.

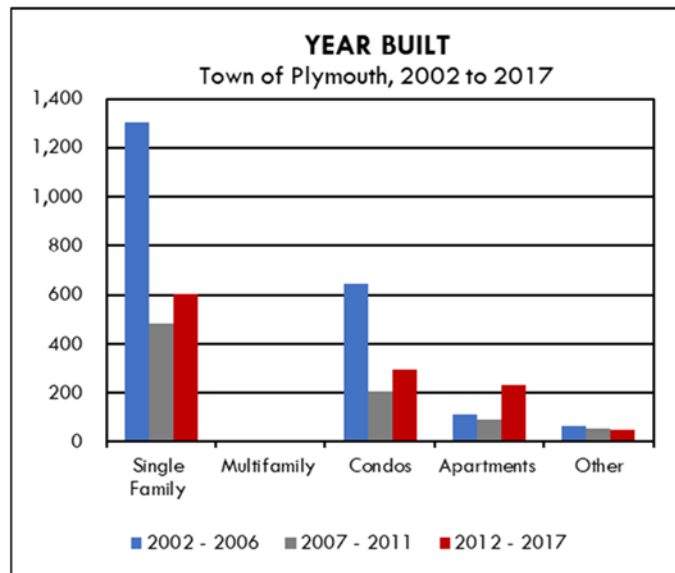
New construction (since 2002) has been targeted at the higher-end of the market in terms of price. The average single-family home built prior to 2002 is estimated at less than 1,800 square feet, according to local assessment records². Since then, the average single family home size has grown by more than 37% compared to units that existed before 2002. The disparity in unit size results in a significant value disparity as well. The average value per single-family homes built prior to 2002 is \$291,847 and those built since 2002 average \$468,179 – a difference of 60.4%. Similarly, newly constructed condominiums and apartment units are much larger and have a higher average value than existing units. This finding is consistent with the changing income trends, as more affluent households typically have the means to purchase larger units. Given the target market for much of the Town's new housing development is empty

Figure 3-1



Source: Town of Plymouth and RKG Associates, Inc., 2018

Figure 3-2



Source: Town of Plymouth and RKG Associates, Inc., 2018

² RKG produced a detailed analysis of the Residential Development Trends. Overall, the table offers information regarding the Town of Plymouth's total residential inventory. Information was taken from the Town of Plymouth's Property Assessment Data Portal.

nester and retiree households, the larger size and higher values of new construction further challenge prime working age households from finding suitable housing in Plymouth.

According to the town's property assessment database, there are thousands of acres of land that remain undeveloped but are zoned for residential use. This finding is consistent with the Town's Open Space Plan. While it is not possible to narrow down the actual developable amount of land (i.e. removing environmentally sensitive areas), both studies have discovered that almost all of this undeveloped land is for large-lot development in areas of the Town that are not well served by transportation access or public utilities. RKG's updated fiscal impact analysis (detailed in Chapter 7 of this report) shows that this remote development activity adversely impacts the Town's fiscal health. Without changes in the Town's approach to future residential development, this land will be consumed at a rapid rate and create more fiscal challenges for Plymouth.

3. Housing Unit Occupancy and Tenure

The "ocean/beach effect" from nearby Cape Cod has helped to shape the Plymouth housing market. According to the U.S. Census Bureau, approximately 13% of all the housing units in Plymouth are considered vacant or seasonal. This happens in oceanside or resort communities where people have a financial incentive to lease their homes as a source of secondary income. The percentage of vacant/seasonal house has been consistent since 2000, and is projected to remain stable into the near future. Despite having 85% traditionally owner-occupied housing, the Town has maintained a renter occupancy well above 15%, exceeding 20% in 2016. This finding is not surprising, as demand for rental housing likely has made renting homes (particularly modest value homes) lucrative for owners/investors. That said, this point further exacerbates the imbalance of housing supply and demand in the town. RKG Associates has seen similar conditions based on its previous work in places such as Nantucket, MA and East Hampton, NY

4. Residential Sales Analysis

Residential sales activity has been robust within the past three years. There have been 2,169 arms-length residential sales³ that have occurred since August 2014. This reflects an average annual turn-over rate of 3.0%, which is consistent with other residential markets RKG has studied. In a healthy housing market, it is typical for between 3% to 4% of all ownership units to turn-over or sell in each year.

The average sales price to assessed value ratio for ownership units in Plymouth was above 100% across all residential types and age of unit. And while there is always a time lag between recent sales prices and updated assessed values, the data suggest that buyers are willing to pay at or above current assessed values for residential units, which is an indicator of a healthy housing market (Table 3-1). The sale price to assessed value ratios were slightly higher for the newest units, but only by a few percentage points. Like the development trend findings, newer residential units tend to possess higher values. Sales activity was lower for units built immediately after the recession, reflecting the lower development activity during this period.

In terms of sales pricing, relatively few ownership units (i.e., single family, condominiums and two-family units) in Plymouth have a market value below \$200,000. Approximately 38% of the condominiums sold during this period had a sales price below \$200,00, and 100% of those units were built prior to 2002. Less than 9% of the single-family units sold since September of 2014 were sold at prices below \$200,000, with almost all being built prior to 2002.

³ Arms-length sales are real estate transactions where the seller seeks to maximize value and the buyer seeks to minimize cost. An example of a non-arms-length sale is a transfer of property within a family, where the seller is not seeking full market value.

Table 3-1
Residential Sales Analysis - 9/2014 to 8/2016
Town of Plymouth, Massachusetts

| Land Use | Arms Length Sales | Average Assessed Value | Average Sales Price | Sale-To-Value Ratio |
|---|-------------------|------------------------|---------------------|---------------------|
| BUILT PRIOR TO 2002 | | | | |
| Single Family | 1,285 | \$313,557 | \$325,311 | 103.7% |
| Condominium | 299 | \$197,691 | \$207,200 | 104.8% |
| Two-Family | 34 | \$290,212 | \$302,055 | 104.1% |
| Total | 1,618 | \$801,459 | \$834,565 | n/a |
| BUILT BETWEEN 2002 AND 2006 | | | | |
| Single Family | 130 | \$459,917 | \$478,944 | 104.1% |
| Condominium | 54 | \$428,950 | \$448,479 | 104.6% |
| Two-Family | 0 | \$0 | \$0 | 0.0% |
| Total | 184 | \$888,867 | \$927,423 | n/a |
| BUILT BETWEEN 2007 AND 2011 | | | | |
| Single Family | 41 | \$506,180 | \$545,627 | 107.8% |
| Condominium | 21 | \$448,924 | \$486,038 | 108.3% |
| Two-Family | 1 | \$362,200 | \$389,000 | 107.4% |
| Total | 63 | \$1,317,304 | \$1,420,665 | n/a |
| BUILT SINCE 2012 | | | | |
| Single Family | 220 | \$439,360 | \$469,573 | 106.9% |
| Condominium | 84 | \$493,492 | \$516,870 | 104.7% |
| Two-Family | 0 | \$0 | \$0 | 0.0% |
| Total | 304 | \$932,852 | \$986,442 | n/a |
| TOTAL INVENTORY | | | | |
| Single Family | 2,169 | \$1,719,015 | \$1,819,455 | 105.8% |
| Condominium | 458 | \$1,569,056 | \$1,658,586 | 105.7% |
| Two-Family | 35 | \$652,412 | \$691,055 | 105.9% |
| Total | 2,662 | \$3,940,483 | \$4,169,095 | n/a |
| Source: Town of Plymouth and RKG Associates, Inc., 2018 | | | | |

5. Multi-Family Apartment Analysis

RKG Associates obtained apartment market trend data from REIS, a leading provider of commercial real estate market information. This analysis focuses on one multi-family submarket as defined by REIS and shown in Figure 3-3. The Town of Plymouth falls into the Boston South/Southeast Suburban submarket where market competition would come from. Even though the submarket area includes subareas to the west of Interstate 495, RKG Associates was able to obtain current multi-family data, specifically, for the Town of Plymouth as well.

a. Inventory Trends

The South/Southeast Suburban multi-family submarket, which includes the Town of Plymouth, has experienced modest inventory growth from 2012 to 2016. The inventory of multi-family units tracked by REIS, a private market data service, increased slightly from 15,077 units in 2012 to 15,793 units in 2016. That equates to a net change of 716 new units or 4.7% over the four years.

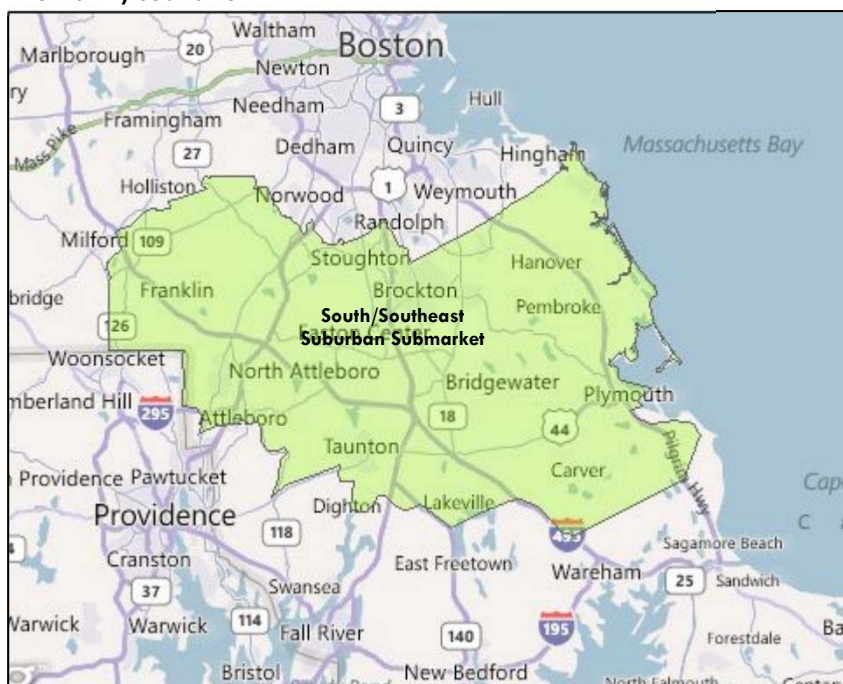
However, by 2017 this submarket saw notable changes, adding 711 new units in one year. With 16,504 units, the South/Southeast submarket accounts for 7.4% of the total Boston Metro area inventory, which is the smallest multi-family submarket in the Greater Boston area. This

partly explains the comparatively older housing stock in this area – approximately 38% of the apartment units in the South/Southeast Suburban submarket were built after 1999, lower than the Metro level (46%). Approximately 18% of the South/Southeast Suburban submarket units were built after 2009, which is significantly higher than the Boston Metro level of 10.8%. This happened because as the Boston rental market began to soften around 2014, developers looked outward and close by. These statistics are picking up recent development (i.e. mostly 40B) in closer-to-Boston communities like Hanover, Stoughton, and several along and between I-95 and I-495. That said, the data indicate there is market for additional multifamily development, particularly for communities such as Plymouth that seek to expand their economic activity levels.

b. Vacancy Rate and Net Absorption Trends

Between 2012 and 2017, the South/Southeast Suburban submarket experienced recent increases in annual vacancy rates, from 2.0% to 4.5% (Figure 3-4). Except for 2017, local vacancy rates have remained below Boston Metro levels and are considered low and evidence of a very competitive apartment market. The likely reason for the spike in vacancy rates in 2017, was due to the addition of 711 new units added to the supply in that year. Once those units are absorbed by the market, apartment vacancies should drop from 2017 levels. Apartment units built after 2009 are experiencing higher vacancy rates of approximately 13.6% and these performance indicators should be monitored closely.

Figure 3-3
Multifamily Submarket



Source: REIS, 2018

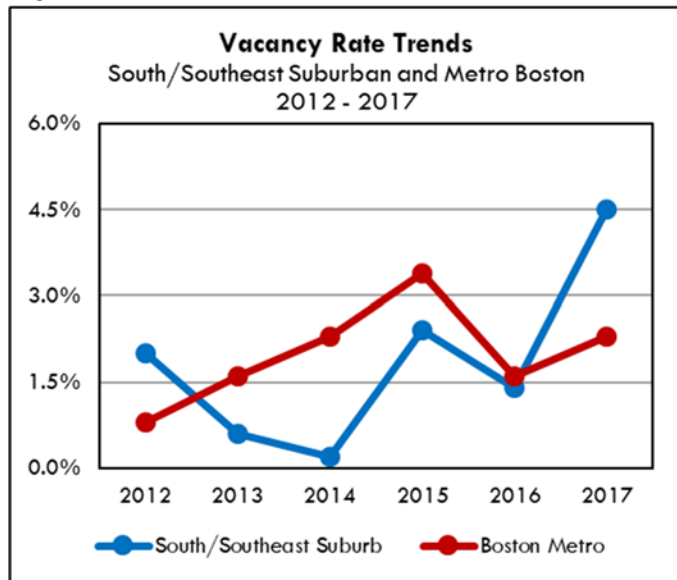
Regarding the Boston Metro market, apartment vacancy rates have ranged from a low of 0.8% to a high of 2.3%. Additionally, units built after 2009 are experiencing a 10.1% vacancy rate. This may indicate that both the South/Southeast Suburban submarket and Boston Metro rental supply are not able to attract new tenants due to higher rental pricing. From a market perspective, sustained vacancy rates below 5% typically create opportunities for new multi-family development.

c. Asking Rent/Effective Rent Trends

Asking and effective rent trends indicate strong apartment demand in both submarkets (Figure 3-5). Between 2012 and 2017, the average asking rent in the South/Southeast Suburban submarket increased by 15.4% from \$1,326 to \$1,531 while the average effective rent increased from \$1,263 to \$1,458. The effective rent reflects the influence of such things as rent concessions or free rent on the lease rate. Similarly, Boston Metro, the average asking rents increased by 22.7% from \$1,828 to \$2,224 and the average effective rent increased from \$1,753 to \$2,125.

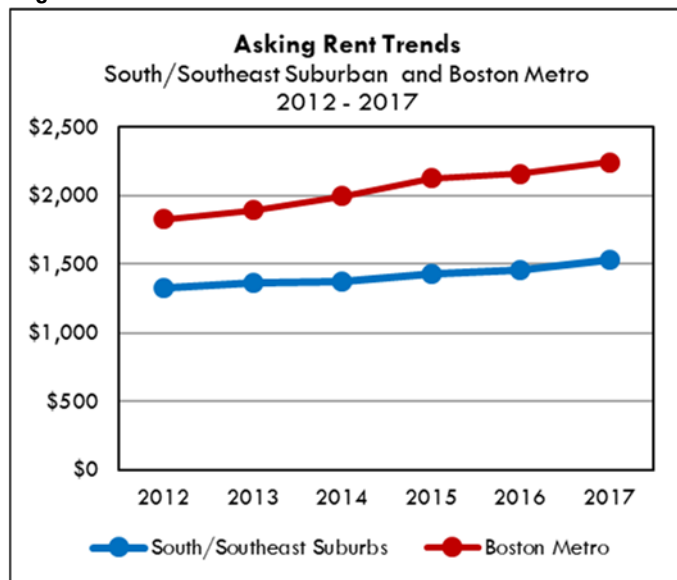
Over the past five years, the South/Southeast Suburban submarket has maintained rent levels roughly 30% below the Boston Metro market, making it a more affordable multi-family market. The less aggressive rent growth despite the strong demand is partly tempered by the submarket’s older housing stock. Therefore, renovating existing units or adding new and higher-quality ones to the market may lead to a more significant rent growth.

Figure 3-4



Source: REIS, 2018

Figure 3-5



Source: REIS, 2018

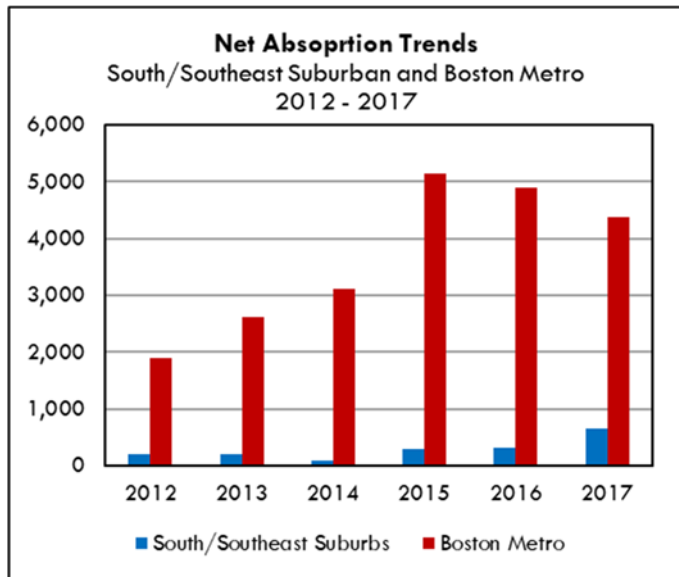
d. Net Annual Absorption Trends

Net absorption measures the change in occupied square feet or apartments units from one period to the next. Annual net absorption continued to increase between 2012 and 2017 and recently peaked in 2017, with the absorption of 664 units for the South/Southeast Suburban submarket (Figure 3-6). This was likely driven by a recovering economy, a surge in rental demand, and new apartments coming on the market.

e. Unit Mix and Rent Trends

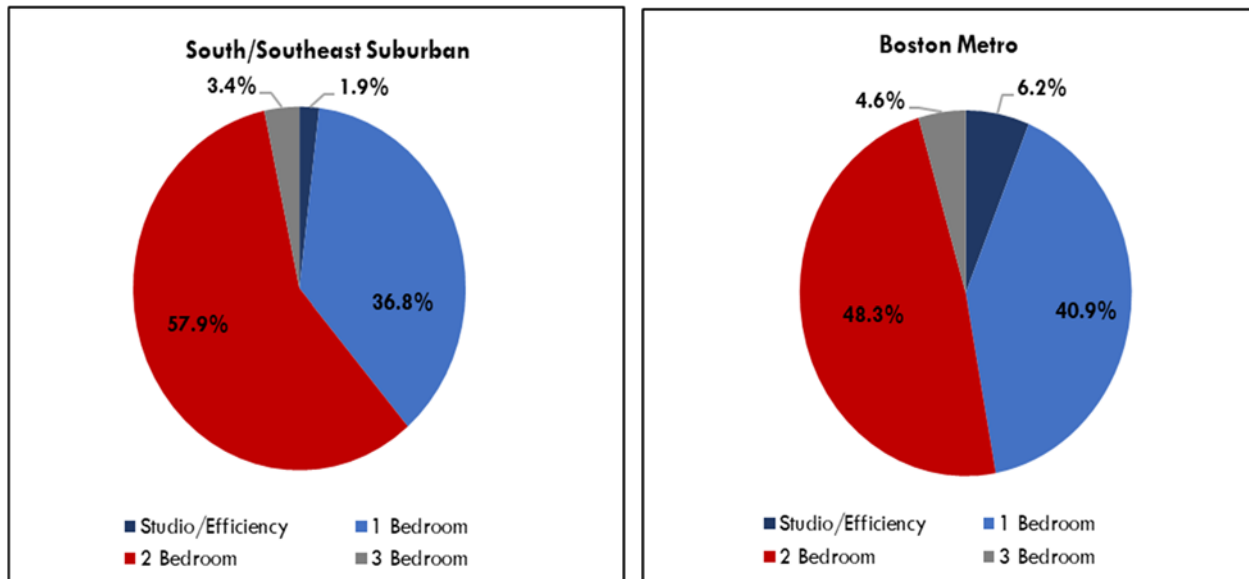
The South/Southeast Suburban submarket and Boston Metro are dominated by 1- and 2-bedroom units. Collectively these two-unit types represent 94.7% and 89.2% of the market share in each area (Figure 3-7). The concentration of these units in the South/Southeast Suburban submarket mirrors the greater region, although Boston Metro has slightly higher percentages of studio/efficiency and 3-bedroom units. Table 3-2 illustrates the different rent trends by unit type. In the South/Southeast Suburban submarket, the fast rent growth is shifting from 1- and 2-bedroom units to 3-bedroom units, indicating an increasing demand for larger units which can ultimately maximize affordability for young professionals. In Boston Metro, 3-bedroom and studio/efficiency units are experiencing the most substantial rent growth, indicating market potential for new development.

Figure 3-6



Source: REIS, 2018

Figure 3-7



Source: REIS, 2018

**Table 3-2
Rental Rate Trends
South/Southeast Suburbs and Boston Metro (5-Year Trends)**

| | South/Southeast Suburbs | | | Metro Boston | | |
|-------------------|-------------------------|---------|---------|--------------|---------|---------|
| | 1- Year | 3- Year | 5- Year | 1- Year | 3- Year | 5- Year |
| Studio/Efficiency | 5.2% | 2.4% | 3.4% | 5.3% | 5.2% | 6.0% |
| One Bedroom | 4.6% | 3.2% | 2.7% | 4.7% | 4.1% | 4.3% |
| Two Bedroom | 5.3% | 3.8% | 2.9% | 3.2% | 3.8% | 4.1% |
| Three Bedroom | 6.7% | 4.6% | 4.7% | 5.4% | 4.9% | 4.6% |

Source: REIS, 2018

f. Current Rental Listings on the Market

To better understand the current market dynamics within the Town of Plymouth and the immediate area within a couple miles of the town, RKG Associates surveyed the rental units that are currently listed for rent on Apartments.com (Table 3-3). While this list does not include 100% of all rental units on the market, is a good indication of what units are currently on the market. These active listings include all types of rental units, including apartments, homes and condominiums. Approximately, 50.9% of the current apartment listings area for 2-bedroom units, followed by 1-bedroom (45.3%) and 3-bedroom (3.8%). The ascending rent level from studios to 3-bedroom units are consistent with their average unit sizes. The relatively smaller unit size and noticeably high rents for 1-bedroom reflects the need for affordable rental units in the area. For most unit types, apartments have higher average rents than condominiums and houses of the same unit type. The rent premium reflects not only the accessory amenities and services provided to apartment tenants such as a gym, pool, clubhouse, concierge services, etc., but also the more favorable locations of these properties. From a market perspective, the potential for Plymouth to capture a larger share of the higher-rent apartment market largely relies on whether there would be new development that is compatible with regional competitors in terms of location, neighborhood setting, building quality, and tenant services.

**Table 3-3
Rental Market Inventory- Average Rent & Square Footage by Unity Type
Town of Plymouth, MA (2017)**

| Unit Type | Apartment | | | | Condo | | | | House | | | | Total | | | |
|--------------|-----------|-------------|----------------|--------------|-----------|-------------|----------------|--------------|-----------|-------------|----------------|--------------|-----------|-------------|----------------|--------------|
| | No. Units | % No. Units | Avg. Rent/unit | Avg. SF/unit | No. Units | % No. Units | Avg. Rent/unit | Avg. SF/unit | No. Units | % No. Units | Avg. Rent/unit | Avg. SF/unit | No. Units | % No. Units | Avg. Rent/unit | Avg. SF/unit |
| 1 BR | 24 | 45.3% | \$1,837 | 906 | 2 | 20.0% | \$2,150 | 1,017 | 1 | 25.0% | \$2,500 | 973 | 27 | 40.3% | \$1,912 | 917 |
| 2 BR | 27 | 50.9% | \$2,243 | 1,214 | 6 | 60.0% | \$1,741 | 945 | 3 | 75.0% | \$1,632 | 978 | 36 | 53.7% | \$2,076 | 1,150 |
| 3 BR | 2 | 3.8% | \$2,558 | 1,371 | 2 | 20.0% | \$2,375 | 2,297 | 0 | 0.0% | \$0 | 0 | 4 | 6.0% | \$2,466 | 1,834 |
| Total | 53 | 100.0% | n/a | n/a | 10 | 100.0% | n/a | n/a | 4 | 100.0% | n/a | n/a | 67 | 100.0% | n/a | n/a |

Source: Apartments.com, RKG Associates, Inc., 2017

6. Residential Market Potential & Implications

Conversations with local real estate professionals corroborate these market findings. Development since 2002 has been concentrated in the higher price points for residential development. Newly developed projects throughout the Town (e.g., Pine Hills) have buoyed the Plymouth market during and immediately after the recession, targeting older residents (particularly retirees), who are less affected by employment shifts. In addition, multi-family rental development has reportedly targeted the higher end of the market. Meeting the housing demand from higher income individuals and households has proven successful and financially beneficial for builders and developers, and fiscally beneficial to the Town.

However, it only serves a limited segment of the Town residents housing needs and is not accessible to average income households and individuals. The potential labor market has been limited in Plymouth due to these housing-related trends. Additionally, the slower pace of residential growth has created a strain on the retail market since Colony Place has been developed. RKG's windshield survey corroborated anecdotal data from local stakeholders that retail centers—including Colony Place—Plymouth and Kingston are now experiencing sustained higher vacancy levels.

As noted in the socioeconomic section, the potential to create mixed-use development (e.g., commercial with higher density residential) within Plymouth could serve to increase the viability of the town's retail base, provide appropriate locations for diversifying the town's housing market, and creating unique environments within the South Shore to attract younger and middle-income workers already employed in the Town.

C. INDUSTRIAL ANALYSIS

1. Market Overview

While Plymouth's economy is heavily weighted towards service-based employers, the Town has a significant production economy. Plymouth currently has approximately 1.9 million square feet of industrial, warehouse and flex building space. Most this development is in the Plymouth Industrial Park located near Route 44 and Route 3, with some smaller concentrations south of The Grove in the Camelot Industrial Park, along the coastline, and near the airport and Exit 2. Trade, transportation, and utilities are substantial markets both in the Town as well as Plymouth County. Food production (which includes the town's aquaculture and seafood production businesses), fabricated metal production, and electronics production constitute the largest share of manufacturing employment in the town and county, and each experienced a net increase in employment since 2007.

2. Industrial Development Trends

Industrial development since 2002 has not been as robust as retail and residential activity. Approximately 293,000 square feet (15.4%) of the 1.9 million square feet of industrial space has been delivered to the market since 2002, with most of that space coming before the recession⁴. Less than 100,000 square feet has been delivered in the past decade at an average of roughly 10,000 SF per year. Interestingly, all the industrial space built in the past 15 years has consisted of smaller buildings. The largest building delivered was 26,950 square feet. This finding is consistent with the employment and establishment trend analysis, as Plymouth is experiencing a growth in industrial businesses, but a decline in production-based employment. These smaller businesses do not need large spaces in which to operate. Anecdotal data provided by local real estate professionals indicate most new businesses seek smaller (under 25,000 square feet) spaces with the potential to grow. The lack of mid-sized buildings was reported to be a challenge for existing operations to stay in Plymouth. As such, the Town's ability to facilitate the construction of a larger building(s) to support the expansion of growing business may become an essential economic development strategy in the future.

3. Industrial Market Performance

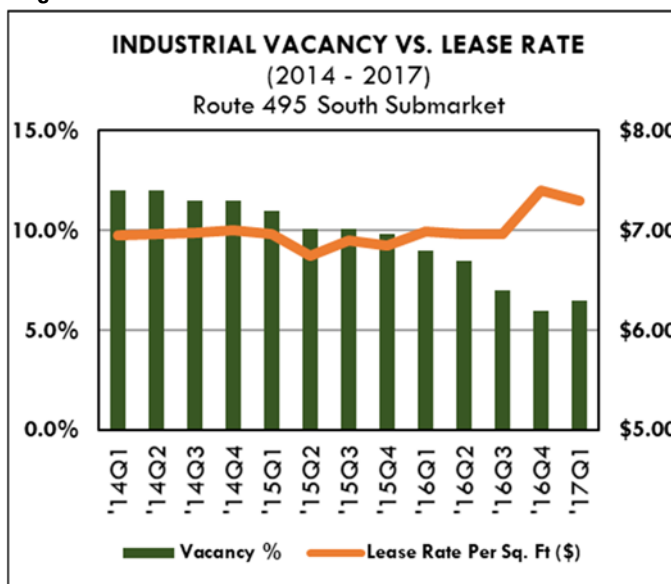
Data for industrial market performance is tracked at the regional level, as industrial users are less concerned with municipal boundaries and more concerned with regional/national marketplaces. Plymouth is part of

⁴ RKG produced a detailed analysis of the Nonresidential Development Trends. Overall, the table offers information regarding the Town of Plymouth's total nonresidential inventory, which includes industrial and office space. Information was taken from the Town of Plymouth's Property Assessment Data Portal.

the Interstate 495 regional industrial market south of Boston. RKG collected data from CBRE for the regional market and compared it to information provided by local business leaders and real estate professionals. The most relevant findings include:

- Vacancy has declined since the recession, and inhibits industrial growth – Regional vacancy dropped from approximately 12% in 2014 to approximately 6.5% in the first quarter of 2017 (Figure 3-8). Anecdotally, local real estate professionals and business leaders have corroborated this finding. Sentiment for the town and the region indicates the local market may miss out on growth opportunities due to limited available supply. As industrial users continue to seek ‘just in time’ space, the local market’s limited availability can inhibit growth.
- Rent rates have increased recently, but not high enough to justify new construction - The average asking rent regionally remained just above \$7 per square foot through the first quarter of 2017. As the economy has improved and vacant space has leased, asking rents have started to rise. However, peak market rents (reported to be approximately \$10-\$12 SF) are reported to be insufficient to justify new industrial construction. Local stakeholder feedback indicate that land costs are a barrier, driving asking rents well above the marketplace.
- The threat of rezoning industrial land drives land prices – The disparity between land costs and achievable rent levels is attributed to the cost effect of converting from industrial to some other higher use. Simply put, land has a higher market value when developed for retail, office or residential. The speculative market has pushed the cost for land, which is currently designated for industrial, higher based on the assumption that it will be rezoned for higher and better uses in the future. This is due, in part, to the town’s decision to zone land for industrial uses in areas with good transportation accessibility. However, these locations also are highly sought after by commercial and residential investors/developers. Preserving these sites for industrial uses while seeking other locations for industrial expansion would help bring land costs more in line with revenue potential.
- Industrial outreach is good, but not highly coordinated – Feedback from stakeholders indicates that there are several entities working with local businesses to help identify challenges and create solutions. This is particularly evident in workforce development and continuing education. However, there is no single entity that is managing the outreach and implementation process. The Foundation is well positioned to become that organizing entity with greater staff resources, given its existing relationships with those other stakeholders (i.e. the Chamber of Commerce, Cape Cod Community College). This is more a shift in approach than a new initiative for the Foundation.

Figure 3-8



Source: CBRE Research and RKG Associates, Inc., 2018

4. Industrial Market Potential & Implications

There are three primary areas of potential for Plymouth. First, there are existing businesses in Plymouth that are seeking to grow but cannot find suitable space. The town can implement a greater retention outreach and investment strategy to identify the needs and find locations to accommodate business expansion. Minimizing the rezoning of vacant industrial land and accommodating new locations in Plymouth for industrial development would benefit industry. Second, Plymouth has been successful at retaining spin-off businesses and attracting smaller, cottage industries. Continuing to foster the entrepreneurial spirit for industrial-based businesses will require a more coordinated and fine-tuned retention program. This will connect individual businesses with local economic development efforts, existing workforce and education providers, and other business resources. Creating a clearer ‘pathway to solutions’ could provide the town a competitive advantage within the region.

D. OFFICE MARKET ANALYSIS

1. Market Overview

Plymouth has a small but active office market. Property assessment data indicate there are 1.38 million square feet of professional, medical, and financial office space in the town and another 2.2 million of mixed commercial development (combination of commercial uses). While office uses are spread throughout the town along commercial corridors, there are concentrations in the waterfront/downtown market as well as the Colony Place/Plymouth Industrial Park area. Like the industrial market, Plymouth’s office properties are a collection of smaller facilities. Only three of the office buildings are larger than 100,000 square feet, and 14 are larger than 50,000 square feet. As already noted, this has contributed to the employment and establishment growth trends realized within the town, most notably the larger and faster gains in establishments compared to employment.

Among office users, the healthcare and social assistance market sector is the largest, and fastest growing within the town and county. This is not surprising, given the strong growth of the community’s mature population and the presence of a regional hospital that is affiliated with Boston research and teaching hospitals. Moreover, Plymouth is, and always has been, host to all the state agencies that provide social services. The professional services sector constitutes a smaller, but sizable presence in the town as well.

2. Office Development Trends

Traditional office uses and mixed commercial properties have consumed approximately 691 acres of Plymouth’s total developed land. Traditional office uses have a much higher efficiency, totaling 39% of the building area but only 24% of the land consumed by development. Like other non-residentially-zoned land for commercial use, the town has experienced a noticeable decline in professional office development and most of this development occurred prior to the year of 2002. Only 311,416 of the 3.57 million square feet of office and mixed commercial space was delivered in the past 15 years, at an average of 20,761 SF per year. The largest building built since 2002 was a 31,122 square foot building located in the Plymouth Center area. The recession had an equally chilling impact on office development as it did with residential and industrial development, with product delivery being the smallest from 2007 to 2011.

3. Office Market Performance

RKG Associates analyzed the Interstate 495-South submarket area by utilizing the CBRE Research Q1 2017 report, to represent the current market for office in around the Town of Plymouth. This submarket shows an office inventory of 39 buildings and a total of 2.6 million square feet, which is the smallest inventory among all of Boston’s office submarkets. Additionally, the Interstate 495 South submarket has the highest rates for available office space to rent at 32.2% (vacant and sublet space) with one of the highest vacancy rates at 25.9%. Likewise, the Interstate 495 South submarket has some of the lowest average asking rents for office space at \$17.62 per SF (Figure 3-9).

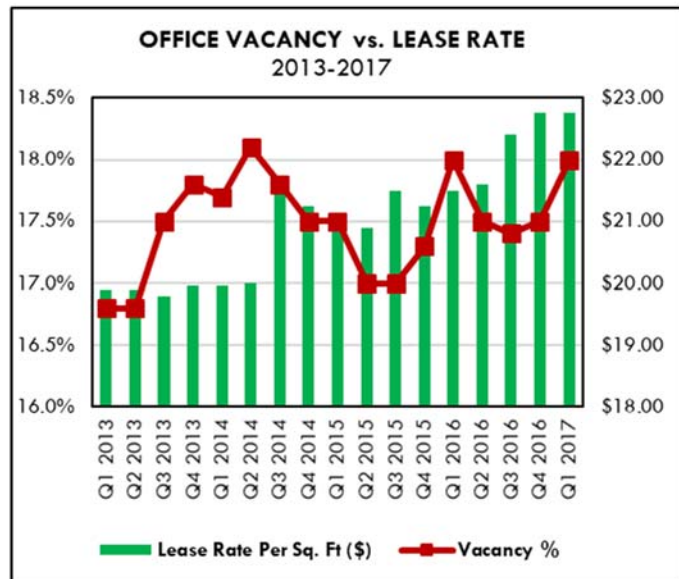
The relative underperformance of the I-495 South market is further evident in net absorption performance. The submarket has experienced negative net absorption for each of the past six quarters, with only a minimal positive absorption in the 2Q of 2016 (Figure 3-10). While performance has varied in the I-495 North and I-495 West markets as well, their overall performance since January of 2015 has been comparatively better than the greater Plymouth area. While Plymouth is only a smaller portion of the larger office submarket, the overall performance in the region will create competition for any new office development in the town.

4. Office Market Potential & Implications

The most significant office findings from RKG Associates’ empirical and anecdotal research include:

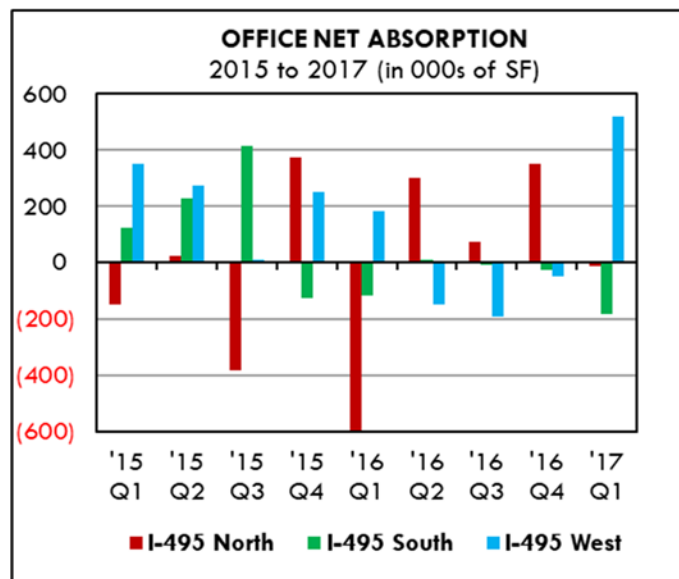
- Enhance focus on entrepreneurial development – As mentioned, the town has experienced substantial growth in late career, high income residents. Research indicates that these individuals are most likely and able to start a new business. Given the town’s current inventory of smaller businesses, a more robust entrepreneurial initiative targeted at business and professional services could support existing residents and attract entrepreneurs from the greater region.
- Target-start up and small-scale businesses – While local business owners and real estate professionals are less optimistic about the potential for larger speculative office development, there was consensus

Figure 3-9



Source: CBRE Research and RKG Associates, Inc., 2018

Figure 3-10



Source: CBRE Research and RKG Associates, Inc., 2018

that continued recruitment and retention of start-up and small businesses provides the greatest opportunity to expand the office market in Plymouth. As just noted, this approach best utilizes the existing stock

- Don't give up the vision – Although the ‘smart choice’ for Plymouth is to focus on small and start-up businesses, respondents recognized the value of establishing an area where larger office development could occur. There was a shared perspective that a portion of the Entergy site could accommodate a development concept that supported larger office facilities. Other respondents noted the Cordage property as a potential to expand mid-size and larger office spaces, particularly through the continued rehab of existing buildings. Given its more immediate potential, the Cordage site should receive more of the Town’s and Foundation’s focus in the short term.
- Infuse office uses as part of the mixed-use/infill development strategy – Including office uses as part of infill development programs diversifies the development program while increasing the daytime consumer base. Both help mitigate the risk for new development, particularly given the saturated retail market. Including office development as part of a mixed-use building also is consistent with the earlier observations of targeting smaller businesses. Infill development typically can incorporate both rental (in an apartment building) and condominium (in an ownership multifamily building) products as small as 300 to 500 square feet.

4 RETAIL MARKET ASSESSMENT

A. INTRODUCTION

The retail market analysis examines the difference between the supply (existing establishment sales) and the demand (consumer household spending) for a variety of different types of retail stores and merchandise categories. The results of the analysis will indicate if there are any retail gaps in the Town of Plymouth that can be filled by new store openings. Overall, this analysis will show the ability of the Town to support the development and capture of future retail spending.

RKG Associates analyzed the three primary retail market areas in Plymouth. These areas were selected based on the concentration of retail activity occurring within the immediate market. The boundaries depicted on Map 4-1 reflect a 5-minute drive time from the center of the retail cluster. This represents the distance that most nearby consumers would drive to patronize a retail center. While RKG recognizes that there are other areas of the town where retailing occurs, these were identified as the area's most likely to attract additional retail services in the future. They include:

- Exit 7/Commerce Way Submarket
- Exit 5/Long Pond Road Submarket
- Manomet/Route 3A Submarket

Exit 7 and Exit 5 are the major destination retail centers within the Town. They are located in the northern part of Plymouth, immediately adjacent to Route 3. These retail submarket areas are where the greatest amount of consumer spending is captured, attracting consumers from outside the town limits. In comparison, the Manomet/Route 3A submarket is a neighborhood-scale retail market located near the 1,500-acre Entergy site. It is surrounded by a high concentration of housing. Unlike the other retail centers in Plymouth, the Manomet/Route 3A submarket has notable gaps between the consumer expenditures and retail sales for specific retail sectors, such as grocery and department stores.

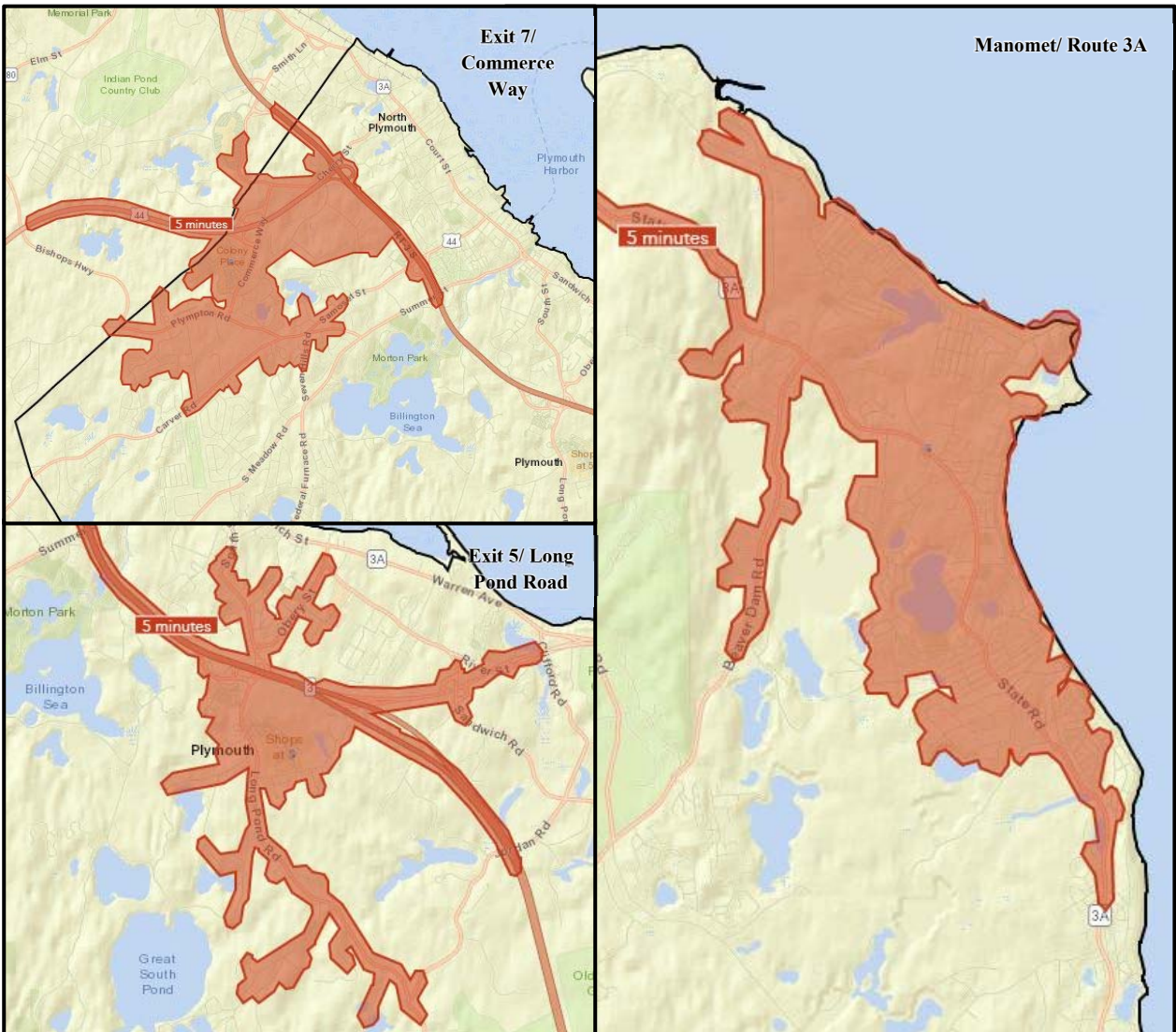
B. METHODOLOGY

The data on retail sales and consumer expenditures comes from Esri's Retail Market Profile, a nationally recognized provider of retail spending and sales data. The analysis was performed at the Town level as well as for each of the submarket areas. Due to the limitations in the way Esri tracks retail sales capture and consumer demand, RKG Associates had to use two different approaches for the submarket analyses.

For the demand analysis, RKG used the Town as a whole and a 5-minute drive time from the center of each of the three submarket areas. The demand data indicate the level of consumer spending occurring for households within the study area based on their income levels and spending patterns within the different retail categories.

The supply data shows the dollar value of sales captured for each retail category based on the reported sales from local establishments within the defined study area (Map 4-1). RKG Associates identified that the approach to analyze the total retail supply for each submarket area by 5-min drive times was causing inaccurate results within the data. The drive time boundary approach was only capturing portions of block groups¹. As Esri's supply data is allocated to a block group and not a specific location within the block group, capturing a portion of a block group led to apportionment problems that inaccurately reflected the total capture for each submarket area. Simply put, Plymouth's low density of population means it has very large block groups. To accurately reflect the total sales capture, RKG had to select the block groups that bounded the submarket drive time areas. To this point, the supply data presented in this analysis follows block group boundaries.

Map 4-1
Retail Submarket Areas: 5-Minute Drive Time



Source: Esri and RKG Associates, Inc., 2018

¹ Block groups are a Census designated boundary defined by population. Plymouth is made up of 38 block groups.

RKG compared the demand and supply data to identify opportunities for Plymouth to encourage existing retailers to expand and/or attract new retailers to the area. The demand-supply comparison is known as a ‘sales leakage’ analysis. Sales leakage occurs when local consumer demand for retail goods exceeds the amount of sales that are captured by local retail establishments. High sales leakage generally indicates the local marketplace is underserved in that specific retail category, oftentimes with insufficient number or quality of product lines and/or fewer businesses than can be supported.

That said, it is normal for consumers to make retail purchases outside their local market area. Realistically, it is not possible to stop all sales leakage because people shop outside their primary market for reasons of convenience. They will shop while at work, which may be outside their primary market. In addition, a growing share of retail demand is being captured by on-line retailers, which often don’t have a physical location. Accordingly, 100% sales recapture is not a realistic objective. Because the consumer household spending is not captured by local businesses it is said to have “leaked” to other businesses outside the local market. In such cases, one would assume that some of this sale leakage could be recaptured by new or existing businesses if they expand their product lines and for new businesses to be created to capture this unmet spending potential.

In contrast, an area has a “sales surplus” when captured sales (supply) exceed local demand. These situations often indicate that the retail market area has a cluster or concentration of businesses, importing sales from outside the primary market. Market clusters attract consumers from outside the competitive retail market areas, as they become known for a specific niche or for having a wide variety of shops from which to choose. This effort is a critical component of RKG Associates’ efforts to identify the local market potential for a given market area. The findings presented in this chapter are a combination of empirical analysis and market understanding generated by decades of professional experience. To this point, it was necessary to understand the retail supply and demand factors that define and drive the Town of Plymouth market.

C. RETAIL DEVELOPMENT TRENDS

Plymouth has experienced substantial retail development since 2002, realizing a 50% increase in retail building space. Approximately 1 million square feet of new retail space was delivered in the five years prior to the last recession alone. Both, Exit 5/Long Pond Road (487,757 SF) and Exit 7/Commerce Way (436,357 SF) commercial centers experienced substantial growth during this period. An additional 258,290 SF was delivered during the Recession. However, development activity since 2011 has substantially slowed. Less than 100,000 SF has been delivered during this period.

Retail development activity substantially outpaced residential development in the Town, with the total new residential units delivered during this study period (3,757 units) constituting a 17% increase in total unit count. The result of this activity has attracted consumers from outside Plymouth, but also has created higher vacancy levels in older, less competitive centers. This new development has increased the total retail space per capita from approximately 43 square feet to approximately 63 square feet during a period where in-store consumption has not grown substantially. Nationally, the average retail space per capita is approximately 45 square feet.

The relatively fast pace of retail development compared to residential growth combined with the impact of the recession and continued growth of online sales generally explain the recent slowdown in retail construction activity.

D. HOUSEHOLD SPENDING DEMAND

The demand analysis attempts to quantify the consumer spending patterns of the households living within a certain market area, in this case, the Town of Plymouth and the selected submarkets (Exit 7/Commerce Way, Exit 5/Long Pond Road, and Manomet/Route 3A). Convenience is a major factor that drives retail sales, particularly in certain merchandise categories. Because of the universal nature of modern retailing, both brick & mortar locations and on-line shopping, most households have convenient access to common goods and services within a 5-minute drive of their house. As such, consumers are not required to travel long distances to obtain common retail goods and services, including restaurants. One exception to this case is when neighborhood shopping centers begin to lose their retail drawing power and customers are attracted to newer retail centers that provide a wider variety of retail choices. For example, in the case of Exit 7/Commerce Way, consumers will drive much greater distances to fulfill their basic shopping needs because of the number of stores and the variety of choices in one location.

As mentioned, RKG examined the consumer household spending demand for the Town of Plymouth and within a 5-minute drive time of the selected retail market areas (Table 4-1). It is important to note the sales from Motor Vehicle & Parts Dealerships is typically the largest merchandise category in most communities because of the volume of sales and the average cost of automobiles. However, in identifying future retail opportunities for the Town of Plymouth, business such as auto dealerships and gas stations, are not typically identified as retail business targets and as a result they are not being included in this analysis.

1. Exit 7/Commerce Way Submarket

Based on RKG's analysis, 2017 household spending demand was approximately \$15 million (2.0%) for all retail goods, which was 2.0% of the town's total of \$745 million. Household demand is the greatest for Food and Beverage Stores (\$3.7 million), representing total demand. However, other major household spending categories include: General Merchandise Stores (\$2.3 million), Full-Service Restaurants (\$1.9 million) and Department Stores (\$1.6 million). The Exit 7/Commerce Way market area has one of the lowest consumer expenditure size due to the low concentration of residential development surrounding this selected retail market area.

2. Exit 5/Long Pond Road Submarket

Exit 5/Long Pond Road market has a similar pattern of spending where households spend the least among the selected retail market areas. In 2017, Exit 5/Long Pond Road market household demand totaled approximately \$5.4 million. This is largely due to the market area's population size and the low concentration of surrounding households. The largest portion of annual expenditures within Exit 5/Long Pond Road market are at Grocery Stores (\$1.7 million), Department Stores (\$603,645), Full-Service Restaurants (\$700,923), and Clothing Stores (\$352,491). Similar to the Exit 7/Commerce Way submarket, Exit 5/Long Pond Road submarket has low spending power due to the lack of residential development that exists within a 5-minute drive time. Simply put, Exit 5/Long Pond Road was developed as a commercial hub to serve a larger geographic area.

3. Manomet/Route 3A Submarket

The Manomet/Route 3A retail submarket is generally a residential area of Plymouth with limited commercial activity. It stands to reason that consumer demand is the highest among the selected submarket areas. The market area serves as a neighborhood-scale marketplace that caters both residents as well as beach visitors during the season. In 2017, the household spending in the Manomet/Route 3A submarket area was \$89.6 million. Retail demand is the greatest for Grocery Stores (\$19.3 million), Full-Service Restaurants (\$11.2 million), Department Stores (\$9.8 million), and Health & Personal Care Stores (\$7.7

million). With limited retail services, it is most likely residents from the market area travel to the other regional centers, such as Exit 7/Commerce Way or Exit 5/Long Pond Road. However, the Manomet/Route 3A market area has the potential to best be served by enhancing and improving the neighborhood village commercial concept, promoting businesses that offer convenience opportunities to residents and tourists alike.

4. Town of Plymouth, MA

The Town of Plymouth generated approximately \$745 million in household spending demand for select retail categories² in 2017 (Table 4-1). Plymouth households have the greatest spending demand for Food & Beverage Stores (\$186 million), General Merchandise Stores (\$116.8 million), and Food Services & Drinking Places (\$105.4 million). The average Plymouth household spent approximately \$32,800 in these select retail goods and services categories. These findings are consistent with other upper-middle income communities.

While not reflected in local demand data, Plymouth does capture substantial retail sales from tourists. Being an internationally recognized tourism destination (Plimoth Plantation, Plymouth Rock, the Mayflower II...) brings hundreds of thousands of visitors to the Town each year. Tourists typically spend the most on general merchandise and dining venues. That said, visitation numbers from local venues indicate the number of tourists has been stable in recent years, indicating retail demand from outside visitors likely has not changed for local businesses.

² RKG does not analyze automotive-related spending and non-point (i.e. electronic shopping) retail spending. These categories typically are not considered as strategic economic development opportunities.

Table 4-1
Household Spending Demand by Merchandise Category
Town of Plymouth Retail Market Areas (2017)

| Retail Merchandise Categories | Town of Plymouth | Exit 7 / Commerce Way | Exit 5/Long Pond Road | Manomet/ Route 3A | % of Total | % of Total | % of Total |
|---|----------------------|-----------------------|-----------------------|---------------------|---------------|---------------|---------------|
| Furniture & Home Furnishings Stores | \$27,628,548 | \$558,457 | \$201,515 | \$3,268,905 | 3.7% | 3.7% | 3.6% |
| Electronics & Appliance Stores | \$40,336,796 | \$819,359 | \$292,952 | \$4,807,050 | 5.4% | 5.4% | 5.4% |
| Bldg Materials, Garden Equip. & Supply Stores | \$63,348,162 | \$1,286,228 | \$437,354 | \$8,074,950 | 8.5% | 8.1% | 9.0% |
| Food & Beverage Stores | \$186,004,522 | \$3,711,898 | \$1,369,796 | \$22,553,924 | 24.9% | 25.2% | 25.1% |
| Health & Personal Care Stores | \$62,315,440 | \$1,231,566 | \$465,115 | \$7,733,235 | 8.4% | 8.6% | 8.6% |
| Clothing & Clothing Accessories Stores | \$69,005,833 | \$1,426,739 | \$498,532 | \$7,934,859 | 9.3% | 9.2% | 8.8% |
| Sporting Goods, Hobby, Book & Music Stores | \$36,639,493 | \$742,927 | \$264,611 | \$4,305,029 | 4.9% | 4.9% | 4.8% |
| General Merchandise Stores | \$116,864,731 | \$2,353,299 | \$851,578 | \$13,983,512 | 15.7% | 15.7% | 15.6% |
| Miscellaneous Store Retailers | \$38,000,347 | \$757,944 | \$276,738 | \$4,711,136 | 5.1% | 5.1% | 5.3% |
| Food Services & Drinking Places | \$105,451,950 | \$2,145,606 | \$767,310 | \$12,322,539 | 14.1% | 14.1% | 13.7% |
| TOTAL | \$745,595,822 | \$15,034,023 | \$5,425,501 | \$89,695,139 | 100.0% | 100.0% | 100.0% |

Source: ESRI and RKG Associates, Inc., 2018

Table 4-2
Estimated Sales vs Capture Rate
Town of Plymouth Retail Market Areas (2017)

| RETAIL STORES | Town of Plymouth | | Exit 7 / Commerce Way | | Exit 5/Long Pond Road | | Manomet/ Route 3A | |
|---|----------------------|-------------------------------|-----------------------|-------------------------------|-----------------------|-------------------------------|---------------------|-------------------------------|
| | Total Sales | Capture % in excess of demand | Total Sales | Capture % in excess of demand | Total Sales | Capture % in excess of demand | Total Sales | Capture % in excess of demand |
| Furniture & Home Furnishings Stores | \$39,731,893 | 143.8% | \$23,900,360 | 4279.7% | \$10,650,786 | 5285.4% | \$790,682 | 24.2% |
| Electronics & Appliance Stores | \$32,976,213 | 81.8% | \$24,823,488 | 3029.6% | \$0 | 0.0% | \$384,430 | 8.0% |
| Bldg Materials, Garden Equip. & Supply Stores | \$69,509,264 | 109.7% | \$7,949,049 | 618.0% | \$42,840,108 | 9795.3% | \$855,945 | 10.6% |
| Food & Beverage Stores | \$220,648,168 | 118.6% | \$72,949,542 | 1965.3% | \$1,441,734 | 105.3% | \$17,129,219 | 75.9% |
| Health & Personal Care Stores | \$50,791,630 | 81.5% | \$24,422,596 | 1983.1% | \$1,614,392 | 347.1% | \$7,729,629 | 100.0% |
| Clothing & Clothing Accessories Stores | \$52,238,202 | 75.7% | \$38,099,829 | 2670.4% | \$213,689 | 42.9% | \$0 | 0.0% |
| Sporting Goods, Hobby, Book & Music Stores | \$30,001,153 | 81.9% | \$13,454,763 | 1811.0% | \$1,904,027 | 719.6% | \$0 | 0.0% |
| General Merchandise Stores | \$146,661,736 | 125.5% | \$60,217,204 | 2558.8% | \$65,766,584 | 7722.9% | \$1,708,721 | 12.2% |
| Miscellaneous Store Retailers | \$42,220,062 | 111.1% | \$14,453,572 | 1906.9% | \$3,043,177 | 1099.7% | \$369,701 | 7.8% |
| Food Services & Drinking Places | \$119,755,775 | 113.6% | \$33,455,816 | 1559.3% | \$12,795,574 | 1667.6% | \$6,404,626 | 52.0% |
| TOTAL | \$804,534,096 | 107.9% | \$313,726,219 | 2086.8% | \$140,270,071 | 2585.4% | \$35,372,953 | 39.4% |

Source: ESRI and RKG Associates, Inc., 2018

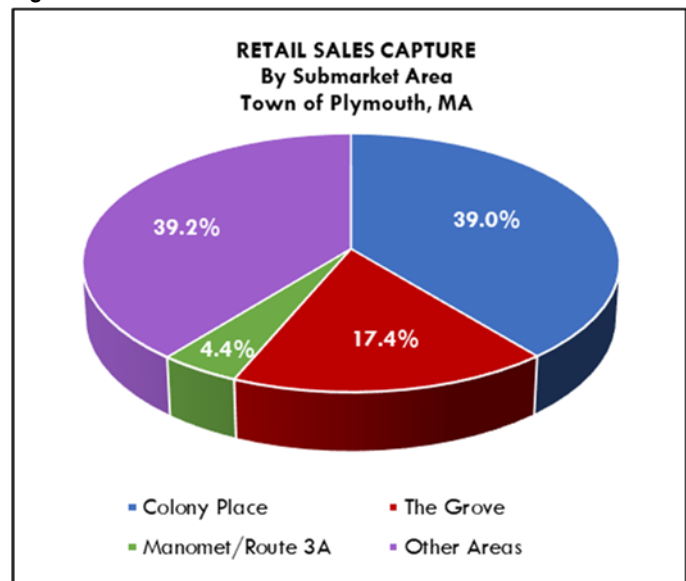
E. RETAIL SUPPLY AND SALES CAPTURE

Retail supply in the Town of Plymouth and the selected retail submarket areas are measured by the amount of the retail sales captured and reported by local business establishments. In theory, the more retail space that a community has, the better positioned it is to capture these sales. According to RKG’s analysis of the town’s property assessment records, Plymouth currently has approximately 3.6 million SF of retail and restaurant space. However, it should be noted that retail supply reflects the total sales captured by all retail establishments, regardless of where the sales originate from. The data indicate that of the three retail market areas, Exit 7/Commerce Way, as expected, is the driver and regional retail shopping center throughout the Town. Overall, this regional retail shopping center captures the most retail sales throughout the Town due to its visibility and location off Commerce way and Route 44, as well as its large selection of retail goods in which it attracts not only local residents but consumers outside of the Town boundaries from other regional areas.

1. Exit 7/Commerce Way Submarket

The Exit 7/Commerce Way submarket area contains an estimated 106 retail businesses, which captured a total of \$489.8 million in retail sales in 2017, \$313.7 million not including automotive and non-point sales. It is important to note that while the Exit 7/Commerce Way submarket households (within a 5-minute drive time) have spending demand equal to 2.0% of the town’s total, the market area’s retail businesses captured 39.0% of the town’s retail sales (Figure 4-1). In fact, local businesses have retail sales that are 2086.8% higher than local household demand (Table 4-2). This finding indicates that the Exit 7/Commerce Way retail businesses, as expected, capture the highest total retail sales and cater to a much larger population of consumers. Anecdotal data indicate Exit 7/Commerce Way has become the premier retail destination in Plymouth County. The highest sales capture in the Exit 7/Commerce Way market area is occurring within Food and Beverage Stores (\$72.9 million), General Merchandise Stores (\$60.2 million), and Clothing & Clothing Accessories Stores (\$38 million).

Figure 4-1



Source: ESRI and RKG Associates, Inc., 2018

2. Exit 5/Long Pond Road Submarket

Exit 5/Long Pond Road captures a total of \$181.7 million (roughly \$140.2 million not including automotive and non-point sales), constituting 17.4% of the town’s retail sales capture from a base of 57 establishments. In addition, these establishments capture sales that are 2584.4% greater than local household spending demand within a 5-minute drive time, which indicates Exit 5/Long Pond Road is also a net importer of retail sales. This is a unique characteristic for the Town of Plymouth, which indicates that the population located in other areas of the Town do not have adequate shopping within proximity and they must travel to these retail centers to make their purchases.

Although Exit 5/Long Pond Road has not remained competitive within the retail marketplace, the power center had the highest sales capture at General Merchandise Stores with sales of \$65.7 million in 2017. This amount is 7722.9% greater than what Exit 5/Long Pond Road population demands for such goods. This is primarily due to the BJ's Wholesale Club located within the commercial core of the submarket. Another example is Food Services & Drinking Places, which capture sales that are 1667.6% higher than local households demand. This is largely due to the presence of several restaurants within the retail power center such as – Panera, Subway, Texas Roadhouse, IHOP, Jolly Bean Café, etc.

However, Exit 5/Long Pond Road in recent times was the only retail center for Plymouth. The development of Exit 7/Commerce Way has shifted substantial sales capture away from this submarket. As a result, there is substantial retail vacancy in Exit 5/Long Pond Road, including a few big box spaces (larger than 40,000 square feet). This finding indicates that Plymouth likely will not be able to utilize the existing retail base without a substantial increase in demand. Without concerted efforts to attract more businesses (daytime consumers), tourists (discretionary spending), and residents (increase in local demand), Exit 5/Long Pond Road will continue to have large-scale vacancy. That said, there is an economic development opportunity to repurpose a portion of Exit 5/Long Pond Road submarket to reduce the overall retail supply while accommodating more jobs and residents. The location's current layout is ideal for a live-work-play mixed use infill development concept.

3. Manomet/Route 3A Submarket

The Manomet/Route 3A retail submarket area is capturing the smallest retail sales at \$42.6 million (\$35.3 million not including Motor Vehicle & Parts, Gasoline Stations and Nonstore Retailers) in 2017 or 4.4% of the town's sales. Further, other areas in Plymouth such as the Downtown area capturing a small portion of sales at approximately one-third of the overall Town demand. The Manomet submarket generally is a residential area of Plymouth with limited commercial activity. Given the continued growth of Exit 7/Commerce Way as a super-regional retail market, some retail operations in the area have struggled to compete. The Manomet/Route 3A retail market area is not considered a net importer of retail sales due to its 12% of local spending demand, which is the highest of the three submarkets. Thus, these households travel to more competitive retail areas throughout the town to do their shopping.

Manomet/Route 3A market's greatest retail sales category is Food & Beverage Stores at \$17.1 million. This is noticeably lower among the other selected retail market areas, which indicates that people are being drawn to the more competitive retail shopping centers that provide a wide variety of goods and competitive prices. To this point, the Manomet market area would best be served by enhancing and improving the neighborhood village commercial concept. The location and visibility of this retail market area along the intersection of Route 3A/State Road and Manomet Point Road could strengthen the production of sales by attracting consumers town-wide. Other notable retail market categories include Health & Personal Care Stores (\$7.7 million), Full-Service Restaurants (\$6.4 million), and General Merchandise Stores (\$1.7 million).

4. Town of Plymouth, MA

The Town of Plymouth captures approximately \$1.14 billion in retail sales from 507 business establishments (\$805.5 million not including automotive and non-point retail sales). Overall, the Town's total capture rate is approximately 107.9% of demand. Notable retail market categories include Food & Beverage Stores (\$220.6 million), General Merchandise Stores (\$146.6 million), and Full-Service Restaurants (\$109.7 million). These data indicate that Plymouth is a net importer of retail sales. This finding is consistent with earlier findings that the super-regional retail centers at Exit 7/Commerce Way and Exit 5/Long Pond Road combined with the influence of the net spending by tourists have enabled the Town to maximize sales capture. That said, the current level of retail space is greater than what the regional

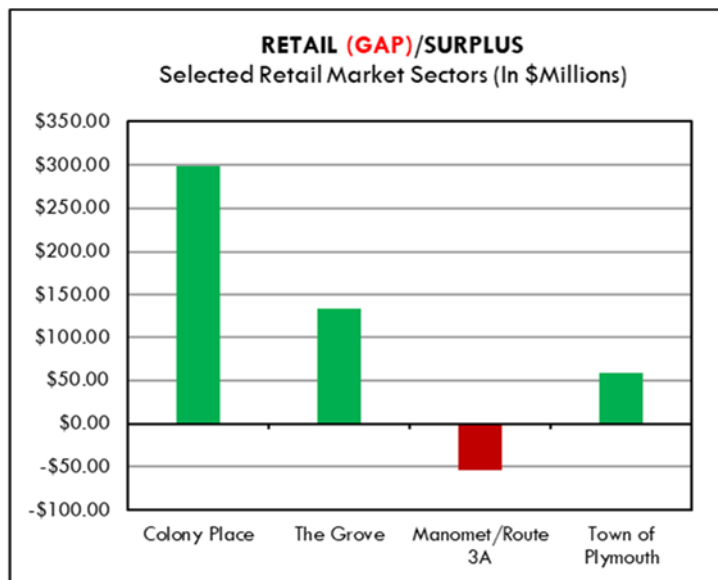
marketplace and tourists can support. The critical mass for consumerism has shifted to Exit 7/Commerce Way, which is shown in the relatively high amount of sales capture within this submarket. As noted, Exit 5/Long Pond Road has substantial vacancies despite its relative success, indicating the development of Exit 7/Commerce Way has created an oversupply of space rather than capturing leaking sales. As noted, it is unlikely for this space to be consumed without some increase in consumer demand.

F. RETAIL GAP ASSESSMENT

To better understand potential retail opportunities for the Town of Plymouth, RKG Associates analyzed the difference between the estimated consumer demand and reported sales capture. Sales leakage occurs in almost every community. Many people shop on their way to and from work because it's convenient for them. Also, there is rapid growth occurring within the on-line retail sector, which is changing the way many consumers make purchases. In that regard, sales leakage cannot be reduced to zero and will always occur. However, as the number of local stores expands it is possible to recapture a percentage of sales leakage. The results of the analysis show where the most viable opportunities for sales recapture exist as well as how much retail store space can be supported.

Consumer demand for the Town of Plymouth is estimated at a total of approximately \$745.4 million and sales capture totaled \$804.5 million, producing a sales surplus of nearly \$58.9 million (Figure 4-2/Table 4-3). Four out of the thirteen retail market categories studied have some sales leakage, indicating that the local retail marketplace does not meet all local needs. This is not surprising, as a substantial number of Plymouth residents work outside the Town. Furthermore, shoppers often have preferences that are not met at the local level, and travel and/or shop electronically for specific goods. Clothing Stores have the most substantial leakage, experiencing net leakage of \$12.1 million. That said, much of this demand most likely is being captured by stores elsewhere in Plymouth County.

Figure 4-2



Source: ESRI and RKG Associates, Inc., 2018

The retail market subareas of Exit 7/Commerce Way and Exit 5/Long Pond Road are the Town's consumer focal point. These areas have the greatest selection of goods and services along with competitive pricing in a more contemporary shopping environment. The Exit 7/Commerce Way retail market area is experiencing surplus sales of approximately \$298.6 million over local household demand. Like Exit 5/Long Pond Road, there is almost no sales leakage within Exit 7/Commerce Way, which indicates that this retail market area is importing sales from the lesser served areas town-wide. While there are some instances of unmet demand in these two submarkets in a specific retail sector, these submarkets attract consumers from all of Plymouth and a much larger area surrounding Plymouth.

In contrast, the Manomet/Route 3A submarket is one of the areas within Plymouth where residents go to Exit 7/Commerce Way and Exit 5/Long Pond Road to shop. The Manomet/Route 3A submarket has a sales capture rate less than 35%, with almost \$79 million of local consumer spending leaking the area. At face value, this indicates there is demand for additional retail stores. This is not surprising, as the area contains

small local shops and businesses nothing near to what Exit 7/Commerce Way and Exit 5/Long Pond Road offer. However, a more detailed assessment of the Manomet/Route 3A submarket reveals this unmet demand is not substantial enough to support an entire new store. The level of unmet demand is insufficient to attract an entire new store to the area. Combine this finding with the convenience of access to both Exit 7/Commerce Way, Exit 5/Long Pond Road, and Downtown Plymouth (particularly for dining options), and it is understandable why the retail opportunities in this part of Plymouth are focused on neighborhood-serving retailers and small-scale shops that can serve both residents and tourists traveling to Whitehorse Beach.

G. TOWN OF PLYMOUTH MARKET POTENTIAL

1. Surplus Sales Capture

Because of the high retail sales being achieved in several merchandise categories throughout the Town of Plymouth, and the “retail gravity” has shifted to Exit 7/Commerce Way, it is reasonable to assume that if there were greater competition in several merchandise categories in other retail market areas, the local market could support additional retail business. While this might not result in greater retail sales for the Town of Plymouth, it could result in greater retail employment and retail estate tax base as multiple establishments compete for the same spending. For example, if a local home furnishing store is achieving sales per SF that are twice the national average, logic would suggest that another home furnishing store could enter the market and capture enough sales per SF to be successful. Through increased competition, the existing store would lose market share to the new competitor, but both stores could be successful at sales levels closer to the national average.

RKG Associates analyzed retail merchandise categories in the Town of Plymouth that are performing at 125% of the national average in terms of retail sales per store. The analysis assumes that any merchandise category producing sales at or above 125% has the potential to support additional competition in terms of new businesses or expanded square feet within existing businesses. RKG Associates calculated the amount of excess sales each retail category achieved above 125% and translated those sales into supportable building square feet based on average sales per square feet being achieved in the Town of Plymouth market.

The total surplus retail sales in the Town of Plymouth is \$58.9 million. There are five retail categories that have experienced excessive sales, which is equivalent to \$75.8 million being captured at or more than 125% of the national average. This is largely attributed to the Grocery Stores (\$38.9 million), Other General Merchandise Stores (\$26.7 million), Lawn & Garden Equipment & Supply Stores (\$6.9 million), Used Merchandise Stores (\$1.9 million) (Table 4-3). Lawn & Garden Equipment & Supply Stores are capturing nearly 242.7% greater than the national average. Grocery Stores have the most notable sales potential. The sales potential for Grocery Stores is approximately \$81.2 million, which support an additional 69,676 SF. While most full-service grocery stores typically range in size from 40,000 to 60,000 SF, these excessive sales could support a full-size or big-box grocery store. RKG’s estimates that the total amount of new retail space that could be supported by excess sales would equal approximately 210,882 SF.

2. Sales Leakage Recapture

There are several retail categories in the Town of Plymouth experiencing sales leakage, however, evidence of leakage does not guarantee future success at recapturing sales in each market category. RKG has prepared conservative, moderate, and aggressive (low, medium, and high) sales recapture estimates for the Town of Plymouth. Recapturing sales leakage presents an opportunity for increased sales among existing and new merchants. It also provides an opportunity for additional store development (Table 4-4).

**Table 4-3
 Surplus Sales Capture
 Town of Plymouth, MA (2017)**

| Retail Categories | Retail Categories with Excessive Sales | Sales Capture as % of Local Demand | Per Store Sales as % of US Avg. | Sales Above 125% of National Avg. | Avg. Sales Per SF (U.S.) | Additional Supportable SF |
|---|--|------------------------------------|---------------------------------|-----------------------------------|--------------------------|---------------------------|
| Lawn Garden Equip & Supply Stores | \$6,990,411 | 242.7% | 223.8% | \$5,249,311 | \$470 | 11,169 |
| Grocery Stores | \$38,981,200 | 124.5% | 212.0% | \$81,233,645 | \$1,166 | 69,676 |
| Book, Periodical & Music Stores | \$47,044 | 101.1% | 416.0% | \$3,141,033 | \$1,227 | 2,559 |
| Department Stores Excluding Leased Depts. | \$3,060,887 | 103.7% | 136.8% | \$7,401,038 | \$691 | 10,716 |
| Other General Merchandise Stores | \$26,736,118 | 178.8% | 232.4% | \$28,022,749 | \$240 | 116,761 |
| Total | \$75,815,660 | 107.9% | 113.7% | \$125,047,776 | | 210,882 |

Source: ESRI and RKG Associates, Inc., 2018

**Table 4-4
 Sales Leakage Recapture
 Town of Plymouth, MA (2017)**

| Retail Categories | Retail Sales Leakage | Sales Potential | | | Supportable Building SF | | | Retail Sales/SF |
|---|-----------------------|---------------------|---------------------|---------------------|-------------------------|---------------|---------------|-----------------|
| | | Low | Medium | High | Low | Medium | High | |
| Electronics & Appliance Stores | (\$7,360,583) | \$736,058 | \$1,472,117 | \$2,208,175 | 2,018 | 4,037 | 6,055 | \$365 |
| Bldg Material & Supplies Dealers | (\$829,309) | \$207,327 | \$414,655 | \$621,982 | 475 | 951 | 1,426 | \$436 |
| Specialty Food Stores | (\$634,635) | \$380,781 | \$507,708 | \$634,635 | 1,174 | 1,566 | 1,957 | \$324 |
| Beer, Wine & Liquor Stores | (\$3,702,919) | \$2,221,751 | \$2,592,043 | \$2,962,335 | 2,053 | 2,395 | 2,737 | \$1,082 |
| Health & Personal Care Stores | (\$11,523,810) | \$6,914,286 | \$8,066,667 | \$9,219,048 | 17,186 | 20,050 | 22,914 | \$402 |
| Clothing Stores | (\$16,767,631) | \$609,609 | \$1,219,218 | \$1,828,827 | 2,237 | 4,473 | 6,710 | \$273 |
| Jewelry, Luggage & Leather Goods Stores | (\$736,333) | \$2,359,913 | \$2,433,547 | \$2,507,180 | 1,433 | 1,477 | 1,522 | \$1,647 |
| Sporting Goods, Hobby, Musical Instr Stores | (\$6,638,340) | \$4,812,379 | \$6,483,725 | \$8,155,071 | 6,764 | 13,527 | 20,291 | \$247 |
| Florists | (\$1,538,933) | \$923,360 | \$1,231,146 | \$1,538,933 | 3,847 | 5,130 | 6,412 | \$240 |
| Total | (\$49,732,493) | \$19,165,465 | \$24,420,826 | \$29,676,186 | 37,187 | 53,607 | 70,026 | |

Source: ESRI and RKG Associates, Inc., 2018

From an economic development perspective, the most effective approach to increasing retail demand within the Town is through greater residential development. Simply put, developing new housing opportunities (particularly housing types that diversify the Town's existing housing base) near the two major retail market areas (Exit 7/Commerce Way and The Grove) can increase consumer demand, which could potentially create business expansion and offer more job opportunities.

Clothing Stores have the most significant recaptured sales leakage and presents sales potential at an estimate of \$609,609 to \$1.8 million, which is comparable to 2,237 to 6,710 SF of additional supportable SF. Simply put, consumers desire to shop at larger retail centers where they find a great variety of merchandise or more competitive pricing than what can be obtained locally in the Town of Plymouth. In addition, they are more likely to shop locally if retail goods are more conveniently located near their home.

3. Total Sales Recapture and Implications

Not all leaked sales can be recaptured. Residents in the Town of Plymouth retail market area likely have a variety of spending habits such as making purchases on their commute to and from work or Internet purchases that are unlikely to go away. RKG's estimates use a range of assumptions to estimate supportable retail space, conveyed a recaptured leakage and excess sales in certain retail categories.

The consultants utilized professional experience to adjust for local conditions, town-wide competition and mix of offerings. These estimates generally reflect the current retail market climate. The results estimate the amount of additional square footage, based on typical sales/SF by retail category, which could be supported by the spending power of the local market for each category, and reflect the total estimated sales potential and additional square footages using a low, medium and high recapture summarized in Tables 4-3 and 4-4.

Overall, there is a limited amount of sales leakage throughout the Town of Plymouth and surrounding retail market areas. The Manomet/Route 3A area is underserved with retail, but it is being supported by the retail centers of Exit 7/Commerce Way and Exit 5/Long Pond Road. While there is available developable land that has the potential for implementing more commercial/retail development in this part of Plymouth, an increase in consumer expenditure (additional household) likely will be required to attract additional retail businesses. The concept of creating a village commercial center that provides new residents with on-site amenities is the most logical way of expanding commercial offerings in Plymouth, whether it is a concept like newly developed areas throughout the Town that is considered less accessible to Route 3 or a more traditional town center live-work urban form infill development at Exit 7/Commerce Way and Exit 5/Long Pond Road. Encouraging additional commercial activity along main thoroughfares, particularly for investment that better connect and strengthen specified activity centers throughout the Town. In conclusion, the consultant will provide detailed recommendations for several subareas throughout the Town later in the report.

5 ENERGY SITE ANALYSIS

A. INTRODUCTION

This site analysis was completed for 1,500-acres of land owned by Entergy Nuclear Generation Company that is located adjacent to the existing Pilgrim Nuclear Energy facility (referred to herein as the “Pilgrim facility”) in Plymouth MA. (Map 5-1). As requested by the Town and the Foundation, this land area (the “Project Area”) is under evaluation to determine the site’s development potential. The Project Area does not include the actual generation facility; rather, it is comprised of an inland area south of Rocky Hill Road. The Project Area has an irregularly-shaped boundary which generally follows Rocky Hill Road along the northern border (approximately 5,800 linear feet), extends approximately 9,000 linear feet to the south from Rocky Hill Road, and is bisected by Route 3A (Map 5-2).

B. LAND USE

1. On-Site Land Use

The Project area is predominantly undeveloped and forested. Minor on-site land uses within the Project Area include roadways, commercial uses, a municipal park, municipal infrastructure, and utility corridors. Each is described below.

The undeveloped land is vegetated with pitch pine and scrub oak typical of the region, which provides a naturalized buffer between the Pilgrim facility and the moderately to densely settled surrounding areas. It is within the area of Plymouth known as Pine Hills. The undeveloped areas contain a network of logging trails used by hikers and mountain bikers. Much of the undeveloped land (approximately 910 acres) is Forest Land designated under Chapter 61, which is a Massachusetts tax designation created to encourage the preservation of open space for the purposes of timber production, agriculture or recreation. Taxes for those properties enrolled in Chapter 61 are determined based on the current use of the property (i.e., the productive potential of land for growing trees), not the fair market or development value. To ensure that land under Chapter 61 is managed in a long-term sustainable fashion, there is a penalty for withdrawal from the program and changing it to residential, industrial or commercial use. This penalty consists of payment for the difference between taxes paid and taxes deferred plus interest. The penalty is computed for the previous five years under certification.

The roadways on the Project Area include Route 3A, a two-lane state highway with a north-south course that bisects the center of the Project Area, and Power House Road, a Pilgrim facility access road which extends northward from Route 3A in the eastern portion of the site. In all, roadways comprise approximately 13 acres of the Project Area.

Commercial uses in the Project area seem to be located on a single 7-acre parcel at 265 State Road. The parcel contains three structures and an outdoor boat storage yard. The businesses include Serious Cycles bicycle sales and repair store, Lady Bug Boats (outboard motors), Ron’s Body Works (horse trailer dealer) and the Surf Marine Boat Storage lot. This parcel also contains a cell tower in the southwest corner, although the cell tower access road is located on an adjacent parcel.

The municipal parkland is Cleft Rock Park, an 8.7-acre town facility with nature trails and picnic facilities located at 290 State Road (Route 3A) just across the street from Serious Cycles. The park is notable for a unique rock formation of approximately 25' x 25' and from 12' to 14' tall. There is a cleft through its center 25" to 30" wide and about 25' in length. This passage is approximately 5' high and its "ceiling" is formed by another section of rock that sits on top. It is thought that this rock formation may have been used as a "lookout" spot by the Native Americans. From this vantage point one can see much of Cape Cod Bay and, on a clear day, the monument and shoreline of Provincetown.

Two water tanks, part of Plymouth's municipal water distribution system, are located within the Project Area. One is situated off the northbound lane of State Road near the intersection with Rocky Hill Road, and the other is off the southbound lane further north along State Road past the commercial development.

There is a utility right-of-way (ROW) containing steel structures with overhead transmission lines originating at the Pilgrim facility and extending southward across the Project Area. The ROW runs parallel to, and just west of, Power House Road. The ROW width varies along its 7,800-foot length, but is generally approximately 100 feet wide. In addition, the Project Area contains two cell towers. As noted above, one is in the southwest corner of the commercial property at 265 State Road; the second tower is on an adjacent parcel immediately east of the commercial property.

2. Adjacent Land Use

Adjacent land uses are predominately residential, but also include energy generation, recreation, and undeveloped, as follows:

- North: Pilgrim energy generation facility;
- Northeast and East: Densely settled residential areas along the coast associated with White Horse Beach;
- Southeast: Moderate density residential neighborhoods;
- South: A continuation of undeveloped land and utility ROWs;
- Southwest: Agricultural land and lower-density residential;
- West: Medium density residential and the Plymouth Country Club and Golf Course; and
- Northwest: Densely settled residential areas near Rocky Point

C. ENVIRONMENTAL, HISTORIC, AND CULTURAL

BSC Wetland Scientists inspected portions of the Project Area on May 25th, 2017 to confirm the location of Historic, Cultural, and Wetland Resource Areas. The Project Area is located on a moraine consisting of glacial erratic's and valley formations with steep topography along the hill face off Rocky Hill Road and a reduced slope from State Road moving south toward Old Sandwich Road. BSC conducted site inspections in three portions of the Project Area (Map 5-3) to confirm the locations of natural resources, as well as potential historical and cultural resources, as described below.

BSC first inspected the Cleft Rock parcel off State Road. The area walked consisted of following mountain bike trails and cross cutting through forest leading to the transmission lines off Power House Road, back up the steep rocky moraine-like terrain around to a communication tower, then returning to the trail head at Cleft Rock. There was no indication of wetland resource areas along this route, although BSC did note interesting glacial erratics and valleys throughout the topography. Glacial erratics are large boulders left behind by a glacier following melt. In addition, if you look at the topography of this area one can see how the glacial melt generated water that created valleys moving down slope around the sides of the hills. The hills appear to be a large glacial deposit of sand and stone left behind when the glacier melted.

The second area inspected started off Power House Road along the utility ROW, moving along the overhead transmission lines towards Rocky Hill Road, then followed Rocky Hill Road west along a BVW and continued past uplands and a potential Isolated Land Subject to Flooding (ILSF) before moving south (up slope) from Rock Hill Road. BSC found another ILSF up slope adjacent to an old farm property (potentially an old watering pond for livestock). BSC continued through the wood south until noticing a significant change in vegetation from hardwoods to a Spruce ally that was assumed to have lined the old farm driveway. Following the line of Spruce trees, BSC located one old farm foundation and water well handpump along with what appeared to be a stand of planted Red Cedars. Moving east toward Power House Road (cross cutting the north facing hill side), BSC noted areas of great glacial influence, which consisted of glacial erratic's and steep valleys. Following an old stonewall that appeared to be built for livestock (based on stone size), BSC worked our way back to the ROW and Powers House Road. Additional BVW's were located along Power House Road on east side but were not fully explored during this site visit.

The third area started at State Road and followed at ATV trail south along a ridge up to the highest point in Plymouth, Manomet Hill. From the peak, BSC ventured around the surrounding area following ATV trails and crossing through forest areas but found no wetland resource areas, within the area inspected. BSC noted several additional glacial erratics and valleys leading from the ridge to the east and west.

Using MassGIS, supplemented by the above-described site inspections, BSC identified two types of wetland resource areas along Power House Road and Rocky Hill Road. The resource areas identified include Bordering Vegetated Wetlands (BVW) "Bogs, swamps, marshes, and wet meadows that border on water bodies are defined in the Wetlands Protection Act regulations (310 CMR 10.55) as Bordering Vegetated Wetlands (BVWs)", and Isolated Land Subject to Flooding (ILSF) "isolated depression or a closed basin which serves as a ponding area for runoff or high ground water which has risen above the ground surface". As shown on Map 5-4, MassGIS data indicates the presence of several potential vernal pools within the Project Area. BSC did not see any vernal activity within the wetlands field-identified on-site, perhaps because the inspections occurred late in the season when vernal pool activity is less likely to occur.

BSC reached out to the Massachusetts Natural Heritage and Endangered Species Program (NHESP) and was informed that a portion of the Project Area is listed as Eastern Box Turtle habitat. Per NHESP, this designation may be removed when the Program generates new maps (anticipated soon). However, NHESP still considers the site to have habitat for Eastern Box Turtle as well as Eastern Whip-poor-will. NHESP also provided insight into other areas and species that should be reviewed for "potential" habitat. Additional field studies would be necessary for a full assessment (see NHESP email in the Appendix).

BSC submitted letters to the Massachusetts Historical Commission (MHC), Wampanoag Tribe of Gay Head Aquinnah, and the Wampanoag Tribe of Mashpee to obtain historic and cultural information for the property. BSC has received information from MHC regarding the property (see MHC letter in the Appendix). The MHC inventory lists several historically significant sites for the Project Area, including Cleft Rock, owned by the Town of Plymouth, and the "Manomet Site." MHC noted the use of Rocky Hill Road, Pine Hills, and Manomet Highlands as part of a historic Native American trail system. They consider this area to be "favorable for ancient and historic period land use and occupation."

During the field inspection, BSC noted that the trees appeared to be approximately the same age, size, and variety (Pitch Pine and Oak). This evidence pointed to the area having been cleared at some point and allowed to return to a natural state all at the same time. BSC research found that a large fire in May 1957 burned from Myles Standish State Forest over the Pine Hills to the coastline, encompassing the entire Project Area except for a small area along Rocky Hill Road and the area containing the Entergy Plant (also the only area noted with larger more mature trees). (Map 5-5).

On-site Wetland Resource Areas are a significant consideration when proposing land to be built upon. The Massachusetts Wetlands Protection Act (WPA) (301 CMR 10.00) and Town of Plymouth's Wetland Bylaw (196-4) states "No person shall remove, fill, dredge or alter within 100 feet of resource areas" without first obtaining a permit to do so. Also, the Town of Plymouth Wetlands Rules and Regulations Part 3 stipulate that "The area within 35 feet of a resource area is a no-touch zone. No development, alteration, filling, dredging, or removal is permitted within the 35-foot no-touch zone."

A National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) would be submitted to the Environmental Protection Agency (EPA) for disturbance of over an acre. "Any construction activity that will, or is part of a common plan" of development or sale that will, disturb one or more acres and has the potential to have a discharge of storm water to a water of the United States must either have a permit OR have qualified for a waiver." A Massachusetts Environmental Policy Act (MEPA) filing may also be required depending on the size and scope of development as well as whether the proposed development requires any state permits, involves transfer of state property, or is undertaken by a state agency.

This site provides a forested connection from Myles Standish State Forest, Wildlands Trust-Halfway Pond, Indian Brook Conservation Area, and Little Island Pond, over the Pine Hills, and connecting to Cape Cod Bay, with limited interruption from existing development. The northern face demonstrates the power of the glaciers as they moved through the area depositing a massive boulder field, including Cleft Rock. At the northern base, several wetland resource areas have formed along the roadways. Moving south the glacier produced a massive deposition of sand and more large boulders, along with steep side slopes that are littered with ravines from melt water.

The area is home to a variety of animals, BSC identified Coyote, Deer, Rabbits, Skunks, Raccoons, and various birds through direct observation, scat, and/or tracks. Lastly, BSC noted some of the historic features and uses, such as the old farm buildings, pond, fields, and stone walls.

D. TOPOGRAPHY

Topography was assessed to identify areas more suited to development. In general, slopes of up to 15% are considered optimal for development, with up to 20% considered suitable for development. Slopes of greater than 20% can present challenges associated with design, access, operation of construction equipment, and stormwater management.

As noted above, the Project Area is within the area known as Pine Hills (not to be confused with "The Pinehills" development located to the south). As shown on Map 5-6, steeply sloped areas of 20% or more are present throughout most of the area, but there are some large swaths with slopes up to 15%. One such area is along Power House Road in the eastern portion of the site, and another is in the northwest and central section south of Rocky Rocky Hill Road. Smaller areas with slopes between 15% and 20% are scattered throughout. In all, approximately 25% of the Project Area is considered "developable" (Map 5-7). The concept program is presented in Map 5-11.

In terms of elevation, the Project Area reaches its peak of up to approximately 400 feet above mean sea level in the center of the southern portion (Map 5-8). This high point in the Pine Hills is called Manomet Hill and is the highest point in Plymouth County. From this ridge, elevation slopes steeply away to the east and west, but more gradually towards the north towards the coast. In the developable area near Power House Road (see above) elevations range from approximately 50 feet to 100 feet above mean sea level. In the developable area behind Rocky Neck Road elevations range from approximately 175 to 200 feet above mean sea level.

E. TRANSPORTATION

The Project Area is located on Rocky Hill Road in Plymouth, MA, south of Rocky Point and north of White Horse Beach. Rocky Hill Road runs along the coast of Plymouth in an approximately east-west direction, connecting to State Road (Route 3A) in the west and to White Horse Road in the east. (Map 5-9)

Currently, and in the future, most trips to/from the site are likely to use State Road (Route 3A) to access Rocky Hill Road. Route 3A is classified as a minor arterial and is a major vehicular connection through Plymouth and southeastern Massachusetts.

Rocky Hill Road is classified as an urban collector roadway and currently accommodates approximately 3,200 vehicles per day (vpd). Near the Project Area, Rocky Hill Road provides one general-use travel lane in each direction with approximately 1 to 2-foot shoulders on both sides of the roadway.

The Greater Attleboro Taunton Regional Transit Authority (GATRA) provides bus service in the area via the Mayflower Link (Plymouth to Manomet). Currently, this service runs via Route 3A and White Horse Road, with a stop at White Horse Beach. This bus route does not pass immediately in front of the Project Area, but the route runs through the intersection of Rocky Hill Road & White Horse Road, located approximately 1 mile away. A discussion with GATRA about the possibility of extending bus service to the Project Area to increase transit ridership and reduce vehicular traffic will need to occur.

Consideration is being given to development of the site under a variety of uses. Table 5-1 outlines traffic generation rates for a variety of potential uses, which was considered when developing the concept plan detailed later in this chapter. These rates are taken from the Institute of Transportation Engineers (ITE) Trip Generation manual.

**Table 5-1
 Trip Generation Rates**

| Use | Unit | Weekday Daily | Weekday Morning Peak Hour | Weekday Afternoon Peak Hour |
|-------------------------------|---------------|---------------|---------------------------|-----------------------------|
| Single-Family Residential [1] | Dwelling Unit | 9.52 | 0.75 | 1.00 |
| Office [2] | 1,000 SF GFA | 11.03 | 1.56 | 1.49 |
| Hotel [3] | Rooms | 8.17 | 0.53 | 0.60 |

Source: BSC Group, 2017

[1] based on ITE Land Use Code (LUC) 210 – Single Family Detached Housing

[2] based on ITE Land Use Code (LUC) 710 – General Office Building

[3] based on ITE Land Use Code (LUC) 310 – Hotel

F. ZONING

1. Underlying Zoning

As shown in Map 5-10, most of the site is zoned Rural Residential (RR) (approximately 1,400 acres). The eastern portion of the site (approximately 100 acres) is zoned Medium Lot Residential (R-25). A narrow sliver along the Project Area’s southwestern edge (near Doten Road) falls within Large Lot Residential (R-40) zoning. Please refer to Table 5-2 for detailed information about the range of uses and dimension requirements for each of these zones.

Table 5-2: Plymouth Zoning Summary

| Zone | Allowed Uses | Special Permit Uses | Special Permit Uses Subject to Environmental Design Criteria | Special Permit Uses Subject to Adequate Facility Conditions | Prohibited Uses | Min Lot Size | Min Lot Dimensions | Min Side Yard | Min Front Yard | Min Rear Yard | Max Lot Coverage/Max FAR | Max Height |
|-------------------------------|--|---|---|--|---|--|--|----------------------------|----------------|---------------|--------------------------|---------------------------------|
| Rural Residential (R-40) | <ul style="list-style-type: none"> Single-family dwellings. Home occupations. Conservation of soil, water, and plants, outdoor recreation, day camps, swimming pools, fishing facilities, and other health-oriented proper operation of dams and other water control devices. | <ul style="list-style-type: none"> Conferences. Nonprofit clubs and lodges. Golf courses, country clubs, tennis courts, swimming pools, and other health-oriented proper operation of dams and other water control devices. | <ul style="list-style-type: none"> Sand and gravel quarries and similar extractive industries subject to Zoning Bylaw § 205-18. High technology planned unit development (PUD), which may include office buildings for scientific, engineering, and design and data processing uses, laboratories, research facilities, and other campus-type office structures or groups of structures, such as manufacturing and assembly facilities, warehouse space, conference center, and training facilities with overnight accommodations; recreational facilities and other similar uses on well-buffered sites of more than 250 acres in rural service area only and only where access to the PUD from a limited access divided highway such as Route 3 is by a major street where no residential development on lots whose size or front yard setback is equal to or smaller than that currently allowed in the zoning district has occurred. Recreational campgrounds. Recreational development, as provided by Zoning Bylaw § 205-59, Rural Density Development per § 205-62, Transfer of Development Rights per § 205-70. Communication towers and antennas per § 205-171. | N/A | <ul style="list-style-type: none"> Commercial and industrial uses (except as otherwise provided). Automobile or other junkyards, salvage yards, building materials storage, or scrap yards. Storage of residues, materials or vehicles in connection with manufacturing or commercial uses outside the district. High technology PUD on <250 acres, or within a village service area, or which cannot meet access requirements described previously (to be considered a distinctly different use). | 120,000 sf density High tech PUD 250 acres RD: 6,000 sf See § 205-59 RDD: 20,000 sf See § 205-62 | Width 200' Depth 200' Width 2,000' Depth 2,000' | 30' 500' | 70' 500' | 50' 500' | 15% NA 10% 0.2 | 3 stories 35 feet 35 feet |
| Large Lot Residential (R-40) | <ul style="list-style-type: none"> All uses allowed in RR Zones other than village density development. | <ul style="list-style-type: none"> Any use authorized by special permit in RR Zones except those requiring environmental design conditions. Colleges, universities, and technical or vocational schools. Two-family dwellings. Village density development. | <ul style="list-style-type: none"> High technology PUD, which may only include office buildings for administrative, engineering and design and data processing uses, laboratories, research facilities, and other campus-type office structures or groups of structures and supporting uses which are clearly accessory to the above, such as manufacturing and assembly facilities, warehouse space, conference center, and training facilities with overnight accommodations; recreational facilities and other similar uses on well-buffered sites of more than 250 acres in rural service area only, and only where access to the PUD from a limited access divided highway such as Route 3 is by a major street where no residential development on lots whose size or front yard setback is equal to or smaller than that currently allowed in the zoning district has occurred. Rural density development as provided in § 205-62, including provisions for transfer of development rights. | <ul style="list-style-type: none"> Village density development, which is defined as the erection or construction of a dwelling unit or units at a density of greater than one unit per 60,000 square feet in the R-25, R-40, R-20SL, and R-20MD Zoning Districts. | <ul style="list-style-type: none"> All uses prohibited in the RR Zone. Land and gravel quarries and other extractive industries. High technology PUD on less than 250 acres, or within a village service area, or which cannot meet the access requirements stated. | 40,000 sf Two-family: 55,000 SF High tech PUD 250 acres RD: See § 205-59 RDD: See § 205-62 | Width 150' Depth 200' Width 2,000' Depth 2,000' | 25' 500' | 50' 500' | 25% NA | 3 stories 35 feet | |
| Medium Lot Residential (R-25) | <ul style="list-style-type: none"> All uses allowed in R-40 Zones. | <ul style="list-style-type: none"> All uses authorized by special permit in R-40 Zones except those subject to environmental design conditions. Funeral homes. | <ul style="list-style-type: none"> High technology PUD, which may only include office buildings for administrative, engineering and design and data processing uses, laboratories, research facilities, and other campus-type office structures or groups of structures and supporting uses which are clearly accessory to the above, such as | <ul style="list-style-type: none"> Village density development. | <ul style="list-style-type: none"> All uses prohibited in the R-40 Zone. | 25,000 sf Two-family: 35,000 SF VOSD: | Width 110' Depth 175' VOSD - varies see §205-66 | 15' Single 40' Total | 35' | 40' | 25% NA | 3 stories 35 feet |

| Zone | Allowed Uses | Special Permit Uses | Special Permit Uses Subject to Environmental Impact Criteria | Special Permit Uses Subject to Adequate Facility Conditions | Prohibited Uses | Min Lot Size | Min Lot Dimensions | Min Side Yard | Min Front Yard | Min Rear Yard | Max Lot Coverage Max FAR | Max Height |
|------|---------------------|---|--|--|------------------------|--|---------------------------|----------------------|-----------------------|----------------------|---------------------------------|-------------------|
| | <p>Allowed Uses</p> | <p>Special Permit Uses</p> <ul style="list-style-type: none"> • Retail stores, highway houses, commercial, hotels, or pharmacies and similar institutions. | <p>Special Permit Use, Subject to Environmental Impact Criteria</p> <p>manufacturing and assembly facilities, warehouse space, conference center, and training facilities with necessary on-site accommodations only, recreational facilities and other similar uses on well-buffered sites of more than 250 acres in rural service area only, and only where access to the PUD from a limited access divided highway such as Route 3 is by a major street where no residential development on lots whose size or floor area (as defined in § 205-652) is equal to or smaller than the lot currently allowed in the zoning.</p> <ul style="list-style-type: none"> • Retail development as provided in § 205-672 (including provisions for transfer of development rights). • Hospitals, sanitariums, and similar institutions. "Sanitariums" shall be deemed to include office buildings located on land owned by, and contiguous to land owned by, a hospital affiliate as of April 6, 2002. • Retirement mobile home PUDs. | <p>Special Permit Uses Subject to Adequate Facility Conditions</p> | <p>Prohibited Uses</p> | <p>Min Lot Size</p> <p>6,000 sq ft 200-66 15,000 sq Two-family R1D: see § 205-59</p> | <p>Min Lot Dimensions</p> | <p>Min Side Yard</p> | <p>Min Front Yard</p> | <p>Min Rear Yard</p> | <p>Max Lot Coverage Max FAR</p> | <p>Max Height</p> |

The intent of RR Zoning is to:

- Discourage scattering of residential development beyond the fringes to developing village centers and thereby to reduce the needed for uneconomical extension of roads, utilities and other community facilities and services.
- Channel development into zones where public utilities and community facilities and services may be provided efficiently. To utilize the provisions of transfer of development rights as specified in § 205-70 of the Bylaw.
- Discourage development in areas whose soil and slope characteristics are generally less suitable for development than in other zones.
- Preserve the natural, rural character of presently rural areas of the Town.
- Prevent the subdivision of small residential lots along principal Town ways in rural areas.
- Utilize Plymouth's tremendous land resources for uses other than residential development which will help balance the tax base and offer employment to local residents.

The intent of R-25 Zoning is to:

- Retain suburban residential development of adequate spaciousness within close proximity of the several village centers of the Town and thus avoid haphazard scattering of subdivisions in rural areas.
- Encourage the permanent protection of natural and open areas within developed areas and to authorize a variety of types of homes available by means of planned cluster and planned residential development techniques.

This intent of R-40 Zoning is to:

- Reserve areas for large lot single family residential development within the perimeter of the various villages of the Town and within reasonable proximity of community facilities and utilities.
- Utilize Plymouth's tremendous land resources for appropriate uses other than residential development which will help balance the tax base and offer employment to local residents.

In addition to the underlying zoning, the Bylaw (§ 205-39) also regulates how land within wetland areas (WA) may be used to calculate area and yard requirements. The intent of the WA designation is to:

- Protect the streams and other water bodies of the Town;
- Protect the health and safety of persons and property against the hazards of flooding and improper waste disposal;
- Preserve and maintain the water table and water recharge areas within the Town; and
- Assure the continuation of the natural flow patterns of the watercourses providing safe and adequate floodwater and runoff capacity.

Any portion of a lot that lies within the WA may be used to satisfy the area and yard requirements for the district in which the lot is situated, provided that not less than 10,000 square feet or 60% of the lot, whichever is greater, is outside the wetland area. Further, any areas greater than 5 feet in breadth which are covered by water shall not be included in the area requirements, and areas covered by water for part of a normal year shall not comprise more than 15% of the required lot area.

2. Aquifer Protection District (§ 205-57)

In addition to the underlying zoning, there is an Aquifer Protection District (AA) overlay zone within the Project Area. The following two protection categories are within the AA:

- Area 2 – Planned Future Well Site; and
- Area 3 – Contributing Area to Significant Recreational Water Bodies.

Both Area 2 and Area 3 are regulated in the Town’s Zoning Bylaw under the Aquifer Protection District (AA), § 205-57. The Aquifer Protection District is considered as overlying other zoning districts, and any uses permitted in the overlay district are governed by the restrictions of the underlying district. Table 5-3 (as excerpted from the Town Zoning Bylaw) lists the uses requiring Special Permits (all of which are subject to Environmental Design Conditions and to specific criteria noted in the Bylaw) and Prohibited uses in these two districts.

The purposes of the AA District are:

- To preserve and protect the groundwater resources of the Town of Plymouth;
- To protect, preserve and maintain the existing and potential groundwater supply and surface water quality for present and future residents of the Town;
- To prevent pollution of ground and surface water and water supplies;
- To assure the continued availability of the potable and recreational water supply of the Town; and
- To promote and protect the public health, safety and general welfare.

The Planned Future Well Site Overlay is defined as the “DEP approved Zones II and IIIs (as defined by DEP in 310 CMR 22.00 as amended) to Public Water Supply Wells and watershed contributing surface runoff” to a DEP-approved Zone I, as defined in the Plymouth Zoning Bylaw and shown in Map 9. The Contributing Areas to Significant Recreational Water Bodies overlay is defined as “the area contiguous or noncontiguous to recreational lakes, water bodies or tributaries thereto in which ground or surface water flow is in the direction of and contributory to the lake, water body or tributary as displayed on the Aquifer Protection Map.”

Table 5-3: Aquifer Protection Use Table

| | Area 1 | Area 2 | Area 3 |
|--|--------|--------|--------|
| <p>§ 205-57. Aquifer Protection District (AA) Use Table. [Added Fall ATM by Art.17, October 24, 2011, Amended by Fall ATM by Art. 26, October 20, 2012]</p> <p>As stated in Paragraph F of Section 205-57, a proposed development project may be subject to more than one use described in the accompanying Aquifer Protection District (AA) Use Table in this Section.</p> <p>A - Allowed Use SP - Special permit Use (all are subject to Environmental Design Conditions, and to those criteria noted in this Section of the Bylaw). P - Prohibited Use</p> | | | |
| Line Reference | | | |
| 1 | P | A | A |
| 2 | A | A | A |
| 3 | P | A | A |
| 4 | P | A | A |
| 5 | A | A | A |
| | P | P | P |
| | P | A | A |

³ Note the Town of Plymouth is more restrictive than DEP.

| | Area 1 | Area 2 | Area 3 |
|--|----------------|--------|--------|
| <p>§ 205-57. Aquifer Protection District (AA) Use Table. [Added Fall ATM by Art.17, October 24, 2011, Amended by Fall ATM by Art. 26, October 20, 2012]</p> <p>As stated in Paragraph F of Section 205-57, a proposed development project may be subject to more than one use described in the accompanying Aquifer Protection District (AA) Use Table in this Section.</p> <p>A - Allowed Use SP - Special permit Use (all are subject to Environmental Design Conditions, and to those criteria noted in this Section of the Bylaw). P - Prohibited Use</p> | | | |
| Line Reference | | | |
| (d) Permanent removal, or re-grading of the existing soil cover, which results in a finished grade at a level less than five (5) feet above the historical high groundwater, unless as otherwise specified in this Table. | P | SP | SP |
| 6 Passive or active recreation. | P | A | A |
| 7 Normal operation and maintenance of existing water bodies and dams and water control, supply and conservation devices. | A | A | A |
| 8 Minor road repair and overlay, including total reconstruction or expansion, or street improvements when performed by a municipal entity; however, no expansion may take place in an Area 1. | A | A | A |
| 9 All other road repair and overlay, including total reconstruction or expansion, or street improvements. | SP | SP | SP |
| 10 The laying of drinking water, sewer or drainage lines, or repair, replacement or expansion of existing structures and piping. | P ⁴ | A | A |
| 11 Dam removal, so long as all other local, state and federal permits that may be required are in place. | A | A | A |
| 12 The replacement or repair of an existing non-sanitary wastewater treatment facility that will not result in a design capacity greater than the design capacity of the existing non-sanitary wastewater treatment facility, or the construction of a non-sanitary wastewater treatment facility, as approved by the DEP, exclusively designed for the treatment of contaminated ground or surface water and operating in compliance with 314 CMR 5.05(3) or 5.05(13). | A | A | A |
| 13 Construction, maintenance, repair or enlargement of drinking water facilities and accessory structures, including underground storage tanks which are not expressly prohibited; the installation of new wells, the laying of water lines, repair and replacement of pipe and appurtenances, and associated grading. | A | A | A |

⁴ Except as approved by DEP as required.

| | Area 1 | Area 2 | Area 3 |
|--|--------|--------|--------|
| <p>§ 205-57. Aquifer Protection District (AA) Use Table. [Added Fall ATM by Art.17, October 24, 2011, Amended by Fall ATM by Art. 26, October 20, 2012]</p> <p>As stated in Paragraph F of Section 205-57, a proposed development project may be subject to more than one use described in the accompanying Aquifer Protection District (AA) Use Table in this Section.</p> <p>A - Allowed Use SP - Special permit Use (all are subject to Environmental Design Conditions, and to those criteria noted in this Section of the Bylaw). P - Prohibited Use</p> | | | |
| Line Reference | | | |
| 14 | P | SP | SP |
| 15 | P | SP | SP |
| 16 | P | SP | SP |
| 17 | P | SP | SP |
| 18 | P | P | P |
| 19 | P | P | P |
| 20 | P | SP | SP |
| 21 | P | SP | SP |
| 22 | P | SP | SP |
| 23 | P | SP | SP |

| Line Reference | § 205-57. Aquifer Protection District (AA) Use Table. [Added Fall ATM by Art.17, October 24, 2011, Amended by Fall ATM by Art. 26, October 20, 2012] | | |
|----------------|---|--------|--------|
| | Area 1 | Area 2 | Area 3 |
| | As stated in Paragraph F of Section 205-57, a proposed development project may be subject to more than one use described in the accompanying Aquifer Protection District (AA) Use Table in this Section. A - Allowed Use SP - Special permit Use (all are subject to Environmental Design Conditions, and to those criteria noted in this Section of the Bylaw). P - Prohibited Use | | |
| 24 | Boat or motor vehicle service or repair facilities or car washes except those accessory to other primary uses; commercial laboratories; and establishments conducting dry cleaning on the premises. | P | P |
| 25 | Storage of liquid petroleum products, as an accessory use, in normal Household Quantities including for emergency generators. | A | A |
| 26 | Storage of liquid petroleum products greater than in normal Household Quantities, unless as otherwise restricted in this Table. | P | A |
| 27 | Waste oil retention facilities unless approved by the Board of Health or required by MGL c.21, s. 52AA. | P | A |
| 28 | The storage of more than 5,000 gallons of gasoline, oil or similar petroleum products. | P | SP |
| 29 | All uses that store fuel or oil in quantities greater than 500 gallons, unless as otherwise specified in this Table. | P | SP |
| 30 | Petroleum, fuel oil, and heating oil Bulk Stations and Terminals including, but not limited to, those listed under SIC codes 5983 and 5171, not including liquefied petroleum gas. SIC Codes are established by the U.S. Office of Management and Budget and may be determined by referring to the publication "Standard Industrial Classification Manual". | P | P |
| 31 | Storage and/or transmission of petroleum or refined petroleum products, except normal household use, outdoor maintenance, and heating of a structure; waste oil retention facilities required by statute, rule, or regulation; emergency generators required by statute, rule, or regulation; and treatment works approved under 314 CMR 5.00 for treatment of ground or surface waters, provided that storage listed above is in freestanding containers within buildings or above ground with secondary containment adequate to contain a spill the size of the container's total storage capacity. Storage tanks may be located within a building or other special enclosure which is sealed so that any leakage is trapped and may be removed without entering into the ground. | P | SP |

| Line Reference | § 205-57. Aquifer Protection District (AA) Use Table. [Added Fall ATM by Art.17, October 24, 2011, Amended by Fall ATM by Art. 26, October 20, 2012] | | |
|----------------|---|--------|--------|
| | Area 1 | Area 2 | Area 3 |
| | As stated in Paragraph F of Section 205-57, a proposed development project may be subject to more than one use described in the accompanying Aquifer Protection District (AA) Use Table in this Section. A - Allowed Use SP - Special permit Use (all are subject to Environmental Design Conditions, and to those criteria noted in this Section of the Bylaw). P - Prohibited Use | | |
| 32 | Storage of liquid Hazardous or Toxic materials and/or liquid petroleum products in quantities greater than normal household use, unless as otherwise specified in this Table. | P | SP |
| 33 | Replacement of existing tanks or existing systems for the keeping, dispensing or storing of gasoline, if in compliance with all applicable laws. | A | A |
| 34 | Facilities that generate, treat, store, or dispose of Hazardous waste unless as otherwise specified in this Table. | P | P |
| 35 | Facilities that generate, treat, store, or dispose of Hazardous waste that are Very Small Quantity Generators, or Household hazardous waste collection centers or events operated pursuant to 310 CMR 30.390 , or Waste oil retention facilities required by MGL c. 21, s. 52A, or Treatment works approved by the DEP designed in accordance with 314 CMR 5.00 for the treatment of contaminated ground or surface waters, or Storage of sludge and septage, which is in compliance with 310 CMR 32.30 and 310 CMR 32.31. | P | SP |
| 36 | The treatment or disposal works that are subject to 314 CMR 5.00 for wastewater other than sanitary sewage, inclusive of treatment or disposal works related to activities under the Standard Industrial Classification (SIC) Codes set forth in 310 CMR 15.004(6) (Title 5) , except the following: <ol style="list-style-type: none"> 1. The replacement or repair of an existing system(s) that will not result in a design capacity greater than the design capacity of the existing system(s); 2. The replacement of existing subsurface sewage disposal system(s) with wastewater system(s) that will not result in a design capacity greater than the design capacity of the existing system(s); 3. Treatment works approved by the Massachusetts DEP designed for the treatment of contaminated groundwater or surface waters and operated in compliance with 314 CMR 5.05(3) or 5.05 (13) ; and 4. Publicly owned treatment works (POTWs) that meet the wastewater management criteria for siting, design and water quality set forth in the latest version of the Massachusetts DEP's (Interim) Guidelines on Reclaimed | P | SP |

| | Area 1 | Area 2 | Area 3 |
|--|---------------------------------------|--------|--------|
| <p>§ 205-57. Aquifer Protection District (AA) Use Table. [Added Fall ATM by Art.17, October 24, 2011, Amended by Fall ATM by Art. 26, October 20, 2012]</p> <p>As stated in Paragraph F of Section 205-57, a proposed development project may be subject to more than one use described in the accompanying Aquifer Protection District (AA) Use Table in this Section.</p> <p>A - Allowed Use SP - Special permit Use (all are subject to Environmental Design Conditions, and to those criteria noted in this Section of the Bylaw). P - Prohibited Use</p> | | | |
| Line Reference | | | |
| | Water, and any subsequent Guidelines. | | |
| 37 | P | P | P |
| 38 | P | P | P |
| 39 | P | SP | SP |
| 40 | P | P | P |
| 41 | P | SP | SP |
| 42 | P | P | P |
| 43 | P | P | P |
| 44 | P | P | P |
| 45 | P | P | P |
| 46 | P | P | P |

| Line Reference | § 205-57. Aquifer Protection District (AA) Use Table. [Added Fall .ATM by Art.17, October 24, 2011, Amended by Fall .ATM by Art. 26, October 20, 2012] As stated in Paragraph F of Section 205-57, a proposed development project may be subject to more than one use described in the accompanying Aquifer Protection District (AA) Use Table in this Section. A - Allowed Use SP - Special permit Use (all are subject to Environmental Design Conditions, and to those criteria noted in this Section of the Bylaw). P - Prohibited Use | Area 1 | Area 2 | Area 3 |
|----------------|--|--------|---|--------|
| | | 47 | Storage of Hazardous or Toxic materials in quantities greater than household use. | P |
| 48 | Manufacturing of Hazardous or Toxic materials. | P | P | P |
| 49 | Facilities that generate, treat, store or dispose of Toxic or Hazardous waste. | P | SP | SP |
| 50 | The disposal of liquid or leachable wastes, except by individual on-site domestic sewage disposal systems serving single or multi-family residences or serving business, industrial or institutional uses discharging not more than 1,000 gallons per day per 40,000 square feet of lot area in compliance with Title V of the State Environmental Code. | P | P | P |
| 51 | The landfilling or disposal of solid or liquid or leachable wastes, including the landfills receiving only wastewater and/or septage residuals including those approved by the DEP pursuant to MGL c. 21 s. 26 through s. 53; MGL c. 111 s. 17; MGL c.83 s.6 and s.7 , and regulations promulgated thereunder. | P | P | P |

G. SWOT ANALYSIS

1. Strengths

- *Waterfront Location:* The Entergy site is located along Plymouth Bay, with direct access to the Atlantic Ocean. Given the scarcity of developable property along the Atlantic Coast throughout the Eastern Seaboard, the entire site—particularly the current Entergy Plant site—has substantial and broad economic development potential for the Town. While the plant site itself will not be available for development for years, and possibly decades, the conservation easement on the rest of the site expires in 2023.
- *Elevation of the Property:* The Entergy site’s higher elevation is an asset from an economic development perspective. From a base perspective, the higher elevation near the Bay provides some protection from inclement weather. The elevation changes also provide attractive views over the Bay and around the Town of Plymouth. More strategically, the top of the hill location has development potential, and can serve as a destination and/or focal point of any development at the site.
- *Large, Developable Tracts:* The site analysis reveals there are several large developable tracts within the Energy site. The largest contiguous portion of the land that offers the best opportunity for development are located north of Route 3A, with frontage along 3A. (approx. 300 acres). There are two portions of the land south of Route 3A that offer an opportunity for development (approx. 112 acres), one area has frontage along 3A while the other does not. These tracts can accommodate several similar developers, or a variety of development types. Given the size of the entire property, having numerous developable sites enables the Town to encourage a diverse development program for the property.
- *Access to Route 3; Route 3A:* The Entergy property bifurcated by Route 3A, connecting the property to the Town’s downtown area and other tourism destination locations. The site is located approximately 4 miles from Route 3, with a direct connection via Plimoth Plantation Highway. Plimoth Plantation Highway is limited access from Route 3 to the site. This strong transportation connectivity allows a variety of development opportunities for the site. The internal Power House Road access drive from Route 3A to Rocky Hill Road provides additional access into the site, including a relatively larger developable area.
- *Complementary Uses:* In addition to the waterfront location, the Entergy Site is bounded by existing uses that complement some of the opportunities identified for this site (see opportunity section). Most notably, Cleft Rock Park contains interesting cultural features and views. The site also is proximate to Plimoth Plantation and Old Sandwich Golf Club.
- *Single Ownership:* Having the entire site under the control of a single entity is a strength from an economic development perspective, allowing the Town to work with a single entity to define a vision for the site and go through the entitlement process. Large sites like this with multiple owners oftentimes creates challenges in creating a unified vision for the development area.
- *Available Infrastructure:* There is water service available along a portion of Route 3A that can serve the Entergy Site, as well as a water tank on the property.

2. Weaknesses

- **Topography (South Side):** Much of the site has topography exceeding 20%, making it challenging for large-scale development. The site's varying, and substantial topography creates an economic development challenge for the site. Although the property has several developable sites, some are more challenging to access due to the undulating topography. Additionally, access to those sites further from Rocky Hill Road and Route 3A (particularly on the south side of Route 3A) will require substantial transportation and utility investment to overcome the steep topography.
- **Existing Transmission Lines:** The Pilgrim Nuclear Power Station produces approximately 688 megawatts of dependable capacity. The transmission lines that carries that energy to the grid runs through the Entergy Site along the Edison Access Road. From a physical perspective, the power lines separate a portion of the site that has development potential. The lines also likely will remain active after the plant's decommissioning, as there already is interest from other power companies to connect to the infrastructure. Any development will need to be mindful of their continued use.
- **Distance from Regional Transportation System:** Despite the relative proximity to Route 3, Plymouth remains comparatively far away from the regional transportation system. The Entergy Site is approximately 24 miles from I-495 in Middleborough (via Highway 44) and 34 miles from I-93 in Braintree (via Route 3). Furthermore, the site is more than six miles from the Plymouth train station, which is not served with regular rail service. This creates a competitive challenge for the site for attracting certain types and intensity of uses.
- **Transportation Capacity:** In addition to proximity, the site is challenged by transportation capacity. Simply put, the Plimoth Plantation Highway is the main artery connecting the site to the rest of Plymouth/the Old Colony Region. Both Plimoth Plantation Highway and Route 3A are two-lane roads, limiting the peak capacity to and from the site. This challenge deals more with scale of development than development type. Regardless, a substantial development program will require transportation investments to accommodate the new demand.
- **Existing Infrastructure:** While the site has access to water, it does not have the same access to sewer service. Any development requiring sewer service must bear the cost of installing new lines. The site also has limited access to other utilizes including communication infrastructure.
- **Future Well Siting:** A large portion of the Entergy Site, particularly to the south of Route 3A on the eastern side of the property. Locating a well on the site will impact development in the immediate area. To this point determination of whether a well is appropriate for this site and specifically where it would be located should be done in the short term to help define the overall site development potential.

3. Opportunities

- **Subdivision of the Site:** The Entergy Site's size and development potential (from a physical analysis perspective) lends itself to accommodating a wide range of market opportunities. More specifically, the unique features in certain parts of the site are more appropriate for certain uses over others. Thus, the Town could encourage a development program that enhances economic diversity rather than focus in on a singular use.
- **'Northside' Economic Development Potential:** The area of the Entergy Site located between Route 3A and the existing power generation facility constitutes most of the potentially developable land. This area is relatively flatter than the rest of the site and is better served with transportation and

other infrastructure amenities. From an economic development perspective, this portion of the site is best suited for employment-based development activity.

- Hilltop Plateau: The hilltop plateau south of Route 3A has the potential to accommodate a visual and economic focal point for the Entergy Site. Given the superior views and prominent location, the hilltop plateau is ideal for a destination-based activity. This concept could include a cultural/entertainment venue (i.e. concert hall), a business event facility (i.e. conference center), accommodations (i.e. hotel), social gathering venue (i.e. wedding venue), or a combination of these activities.
- Ecotourism/Recreation Tourism: A large portion of the Entergy Site is not suitable for physical development, particularly south of Route 3A. However, these areas could accommodate tourism and recreation-based economic development activity. The size of the site can accommodate many tourism and recreation activities. Most notably, the topographic variations are ideal for hiking/biking trails as well as ropes course/zip line facilities. There are areas of the site that are better suited for passive tourism/recreation use as well (i.e. birding).

4. Threats

- Adjacent Uses: The Entergy site is bounded by existing development. The eastern boundary is the existing power generation facility, which could cause some issues until it is remediated. However, the site also is bounded by a golf course and established residential neighborhoods. Any new development activity on the Entergy Site will need to account for compatibility.
- Timing of Opportunity/Development: Access to the Entergy Site and the power generation facility property will not be possible for years. The power generation facility is not going to be fully decommissioned until 2021 and will take approximately 10 years to fully remediate. The Chapter 61A designation on the study site does not expire until 2023. Thus, any economic development investment on either property will not occur for at least six years. Given the property is owned by a private entity, any strategy will need endorsement from the owner.
- Public Opinion: Plymouth's population has diverse opinions about economic development. There are portions of the population that endorse growth of the Town's economic base and portions that do not. Likewise, there portions that support expanding the amount of land available for economic development and portions that do not. During this analysis, the RKG Team has met with individuals who believe the Entergy site is a premier economic development asset as well as individuals who believe the 1,500 acres site should be preserved as-is. Creating a vision that can generate consensus with Plymouth residents could be a challenge.

H. SITE CONCEPT PLAN

RKG Associates and BSC Group were charged with identifying a hypothetical development program for the 1,500-acre site that balances [1] the site's economic development potential; [2] creating positive fiscal benefits for the Town; and [3] maximizes the preservation/quality of life opportunities on the site. RKG Associates recognizes that 'balancing' can be subjective, and that many hypothetical development programs could be considered for this land.

That said, RKG Associates and BSC Group collaborated to bring a variety of perspectives to the creation of a hypothetical development program. The following strategies were used to finalize the concept plan discussed in this report:

- **Avoid environmentally sensitive assets and resources.** This includes all historic and culturally significant assets.
- **Minimize impacts to adjacent properties.** The hypothetical concept creates substantial buffers to abutters to minimize impacts.
- **Minimize topographic and infrastructure costs.** The concept avoids steep slopes and development activity in areas poorly served and/or hard to serve with the necessary infrastructure.
- **Provide variety for new economic development opportunities.** The concept includes development uses that currently are unrepresented or underrepresented in the Town, relative to the community's potential.
- **Maximize fiscal benefit to the Town.** The fiscal impact analysis (Chapter 7) identified uses that have the greatest fiscal benefit to Plymouth. The concept capitalizes on those uses that are market relevant and site appropriate.

The analysis produced the site layout concept presented in Map 5-11. In total, RKG and BSC identified approximately 494 acres of developable land, or roughly 33% of the property. The concept separated the portion of the site north of Route 3A and south of Route 3A. This was done for two primary reasons. First, the road creates a natural boundary for the site, allowing for two complimentary, but separate concepts. Second, each side of 3A has unique qualities that lend to varying development programs. Most notably, the peak of the hill on the south side of the road is much more valuable to destination uses and residential development than the relatively lower portion north of the site. In addition, the northern part of the site is more isolated for existing residential uses, making it better suited for expanding the Town's commercial land area.

The predominance of developable land is located north of Route 3A. Approximately 360 acres have suitable topography for development and can be subdivided to preserve natural and historic assets. There is an area of 65 acres on the east side of the site north of 3A that has been identified to attract a power generation user to take advantage of the existing transmission lines located along Powerhouse Road. The remaining 295 acres were subdivided into 78 parcels ranging in size from 1 acre to 20 acres intended to serve as a new commerce/business park for office, craft manufacturers, and mid-sized production businesses.

- 1-2 Acres – 28 parcels
- 2-3 Acres – 23 parcels
- 3-5 Acres – 11 parcels
- 5-10 Acres – 11 parcels
- 10 Acres – 2 parcels
- 12 Acres – 1 parcel
- 15 Acres – 1 parcel
- 20 Acres – 1 parcel

This subdivision approach addressed both physical and market climate factors. From a physical perspective, the site required varying sizes to minimize land development impacts due to topography and natural assets. From a market perspective, Plymouth has much more market potential for smaller-scale parcels than larger ones. However, there is opportunity for mid-size and larger companies, especially for existing companies that may seek to expand their local presence. The size variation enables the Town and Foundation to pursue a variety of prospects.

The concept for the portion south of Route 3A focuses on creating a unique tourism and event atmosphere while expanding the Town’s luxury housing market (providing substantial fiscal benefits). The ridgeline running from Route 3A south toward the Old Sandwich Golf Club provides superior views of Plymouth Bay and Cape Cod Bay. From an economic development perspective, these vistas are excellent for creating an event/conference venue where business retreats and social events (i.e. weddings). Given the well documented sensitivity for having too much (or any) development along the ridgeline, a premier meeting and event venue built into the scenery would minimize visual impact while creating an amenity currently nonexistent in Plymouth. To compliment this use, RKG and BSC recognize that luxury housing could be built in a neotraditional fashion to integrate with the event facility. The facility could amenitize the residential development.

Based on BSC’s analysis of the property, the development on the southern portion of the site would total approximately 134 acres. The resort parcel would have 46 acres along the ridgeline, ensuring minimal development on the hill’s highest point. The resort property would be surrounded by approximately 32 acres of single family homes spread on nine development parcels. The analysis anticipates a yield of 63 homes on parcels approximately ½ acre in size. An additional 28 acres would be for luxury townhomes totaling 224 units. Pricing for the residential units is projected to be between \$400 and \$500 per square foot due to the location value and amenity offerings from the resort. A final 28 acres closest to Route 3A would accommodate a mix of retail and dining amenities to serve the new development on both sides of the road. The RKG Team envisions the remainder of the land on to the south of Route 3A could continue to accommodate hiking and biking trails (as it does today), as well as the potential for additional outdoor recreation amenities (i.e. ziplines) due to its strong topography.

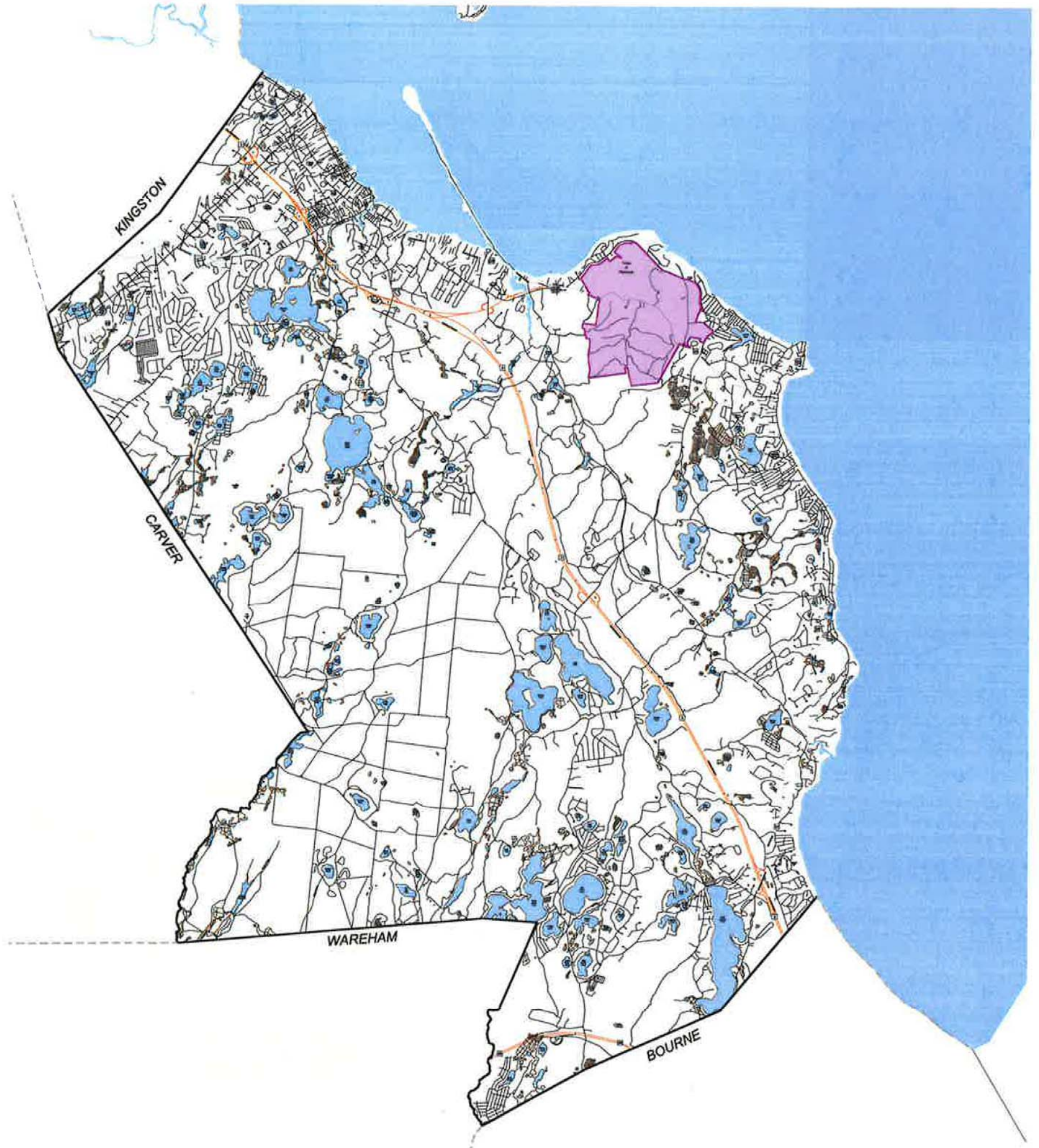
Based on the fiscal impact analysis, this development scenario theoretically would create \$5.85 million in net new annual revenue for the Town (Table 5-4), while creating between 3,100 and 3,800 new jobs (based on the Town average of approximately 8 jobs per improved non-residential acre of land with a 10% margin). While this amount would not fully recover the \$9.5 million PILOT from the Entergy power plant, it mitigates some of the loss while preserving a substantial amount of the property in its natural state.

Table 5-4
Net Annual Fiscal Impact
Entergy Site Concept Development








| Land Use | Acres | Fiscal Measure | | Estimated Annual Fiscal Impact [1] | | |
|-----------------------------------|------------|------------------|------------|------------------------------------|--------------------|--------------------|
| | | Building SF | Units | Revenues | Expenditures | Net Difference |
| NORTHSIDE OF 3A | | | | | | |
| Office | 50 | 544,500 | 0 | \$943,000 | \$201,594 | \$741,406 |
| Industrial | 310 | 2,025,540 | 0 | \$2,287,832 | \$489,091 | \$1,798,741 |
| Subtotal - North Side | 360 | 2,570,040 | 0 | \$3,230,832 | \$690,685 | \$2,540,148 |
| SOUTHSIDE OF 3A | | | | | | |
| Retail | 12 | 130,680 | 0 | \$230,046 | \$49,179 | \$180,867 |
| Office | 16 | 174,240 | 0 | \$301,760 | \$64,510 | \$237,250 |
| Resort | 46 | 50,000 | 0 | \$440,095 | \$18,817 | \$421,278 |
| Luxury Single Family Rural | 32 | 0 | 63 | \$1,212,764 | \$375,192 | \$837,572 |
| Luxury Single Family High Density | 28 | 0 | 224 | \$2,968,518 | \$1,334,017 | \$1,634,501 |
| Subtotal - South Side | 134 | 354,920 | 287 | \$5,153,183 | \$1,841,715 | \$3,311,468 |
| TOTAL | 494 | 2,924,960 | 287 | \$8,384,016 | \$2,532,400 | \$5,851,616 |

Source: RKG Associates, 2018

[1] Based on the results of the fiscal impact analysis detailed in Chapter 7



LEGEND

-  TOWN OF PLYMOUTH BOUNDARY
-  TOWN BOUNDARY
-  ENTERGY NUCLEAR GENERATION CO. PARCEL
-  LIMITED ACCESS ROADWAY
-  MAJOR STREET
-  LOCAL STREET
-  WATER



JULY 5, 2017

Map 5-1
Project Area Locus







LEGEND

- ENTERGY NUCLEAR GENERATION CO. PARCEL
- ROADS

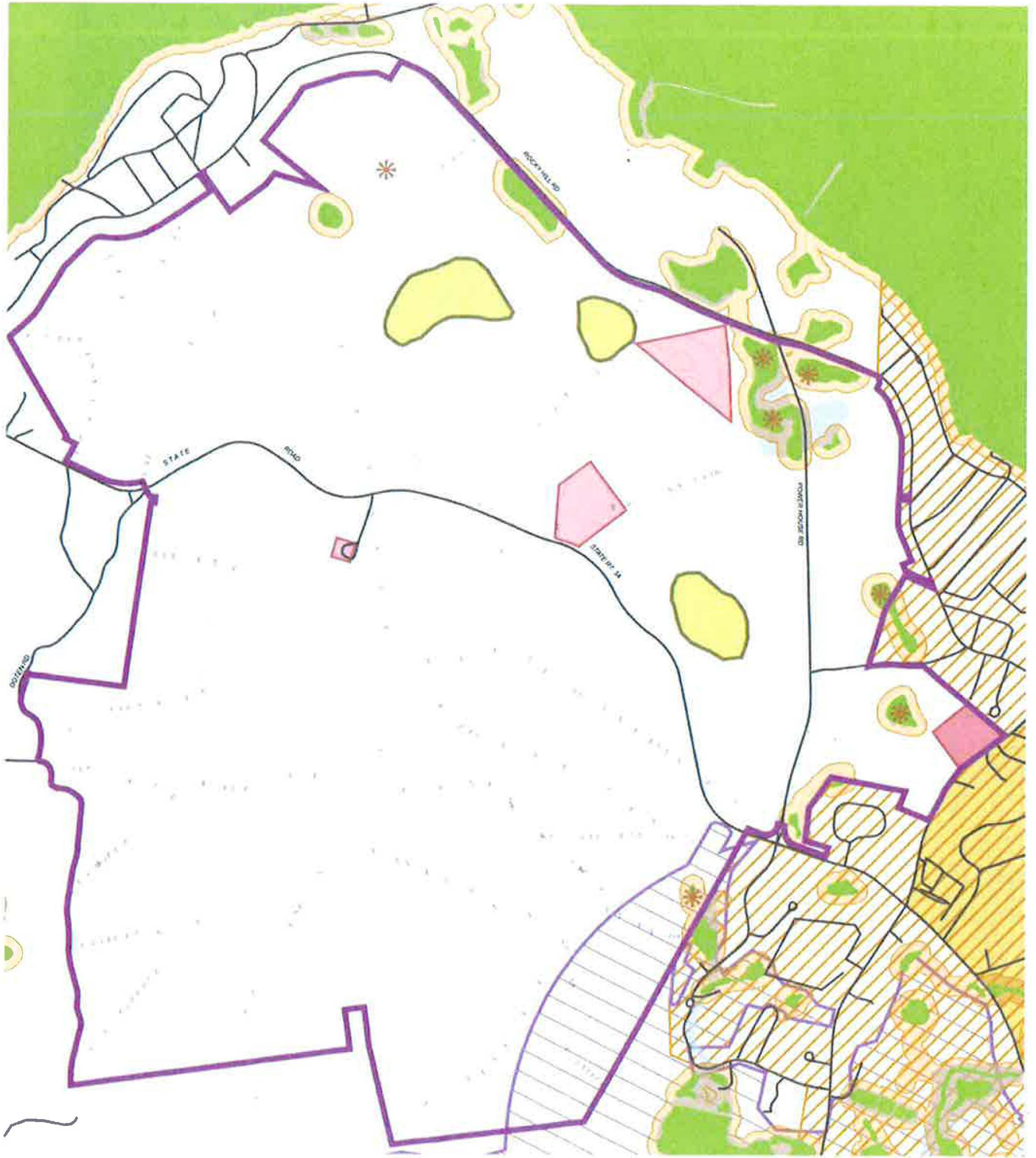


SCALE 1" = 100'
0 50 100 200 FT
N

JULY 5, 2017

Map 5-3
Site Inspection Areas





LEGEND

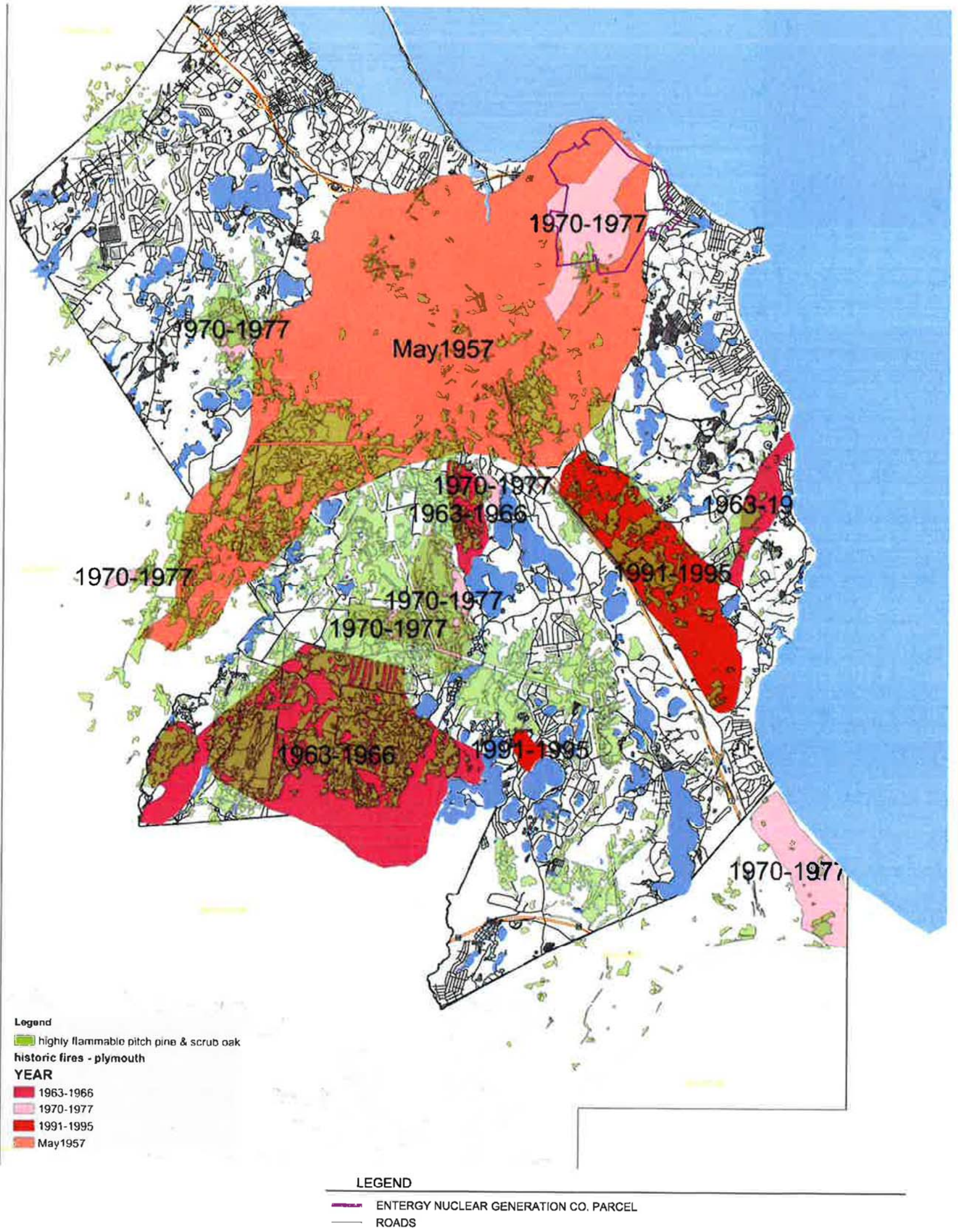
- ENTERGY NUCLEAR GENERATION CO. PARCEL
- POTENTIAL VERNAL POOL
- 25' CONTOURS
- ROADS
- MADEP WETLANDS
- 100FT. WETLAND BUFFER
- NHESP PRIORITY & ESTIMATED HABITAT
- FEMA FLOODPLAIN
- TOWN PROPERTY
- GLACIAL ERRATIC/VALLEY



JULY 5, 2017

Map 5-4
 Environmental Resources

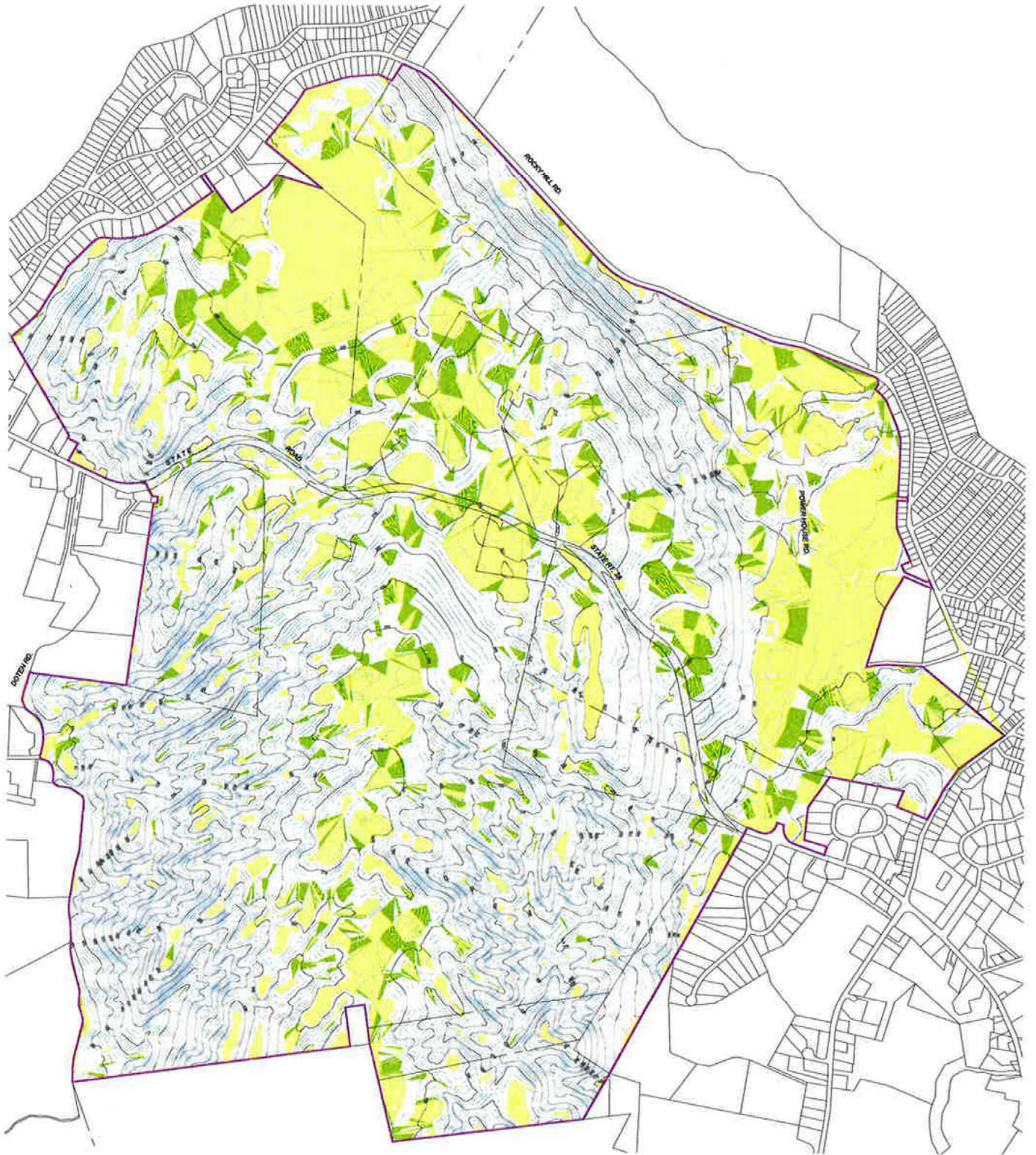




SCALE 1" = 750'
0 75 150 300
JULY 5, 2017

Map 5-5
Major Historic Forest Fires





- LEGEND**
- ENTERGY NUCLEAR GENERATION CO. PARCEL
 - 5' CONTOURS
 - 25' CONTOURS
 - POTENTIAL DEVELOPABLE AREA

| SLOPE TABLE | | |
|-------------|---------------|---------------|
| COLOR | MINIMUM SLOPE | MAXIMUM SLOPE |
| | 0.00% | 15.00% |
| | 15.00% | 20.00% |
| | 20.00% | 80040.24% |

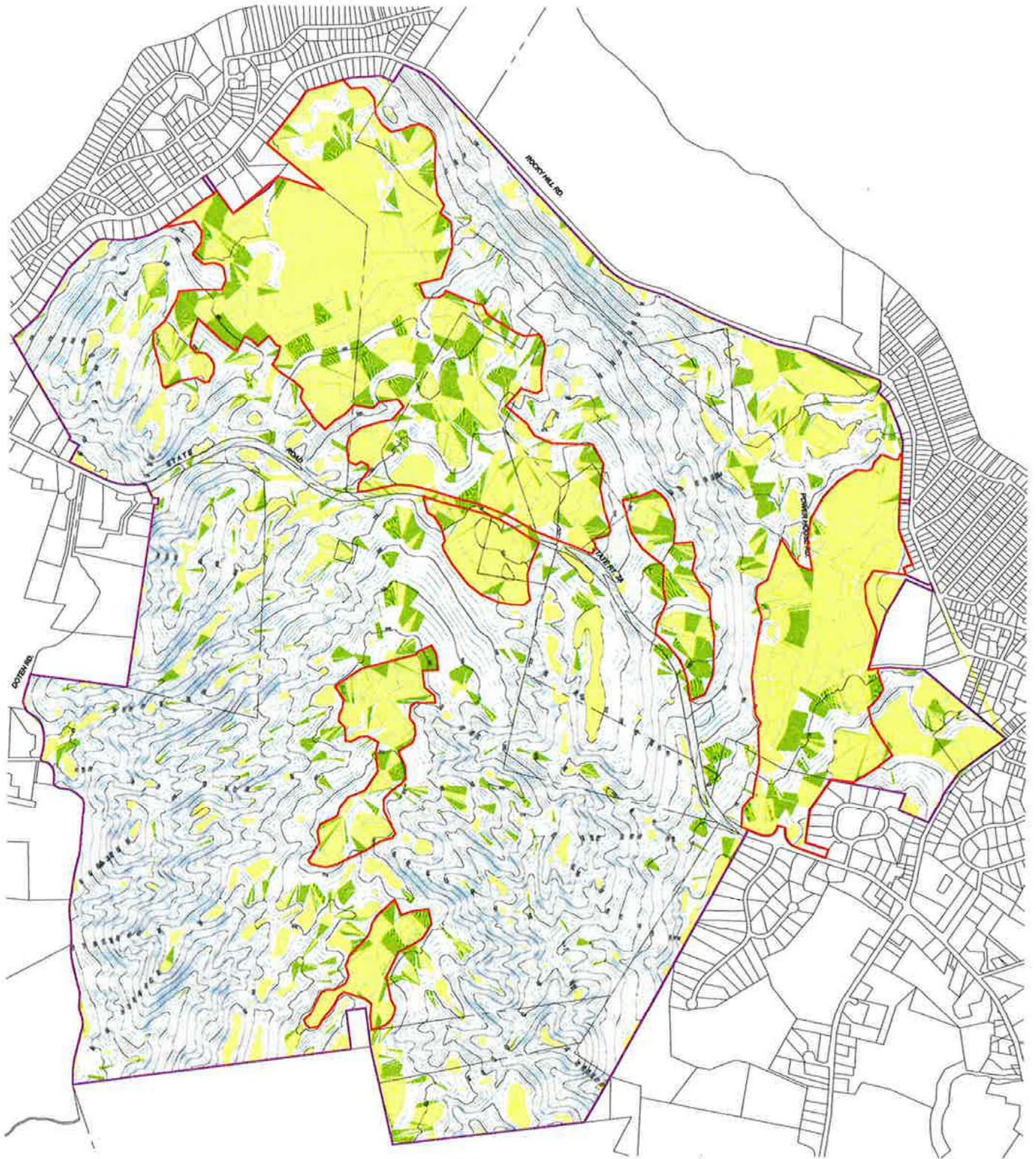


SCALE 1" = 100'
 0 50 100 200'
 N

JULY 5, 2017

Map 5-6
Slope Analysis





LEGEND

- ENTERGY NUCLEAR GENERATION CO. PARCEL
- 5' CONTOURS
- 25' CONTOURS
- POTENTIAL DEVELOPABLE AREA

SLOPE TABLE

| COLOR | MINIMUM SLOPE | MAXIMUM SLOPE |
|-------|---------------|---------------|
| | 0.00% | 15.00% |
| | 15.00% | 20.00% |
| | 20.00% | 80948.24% |

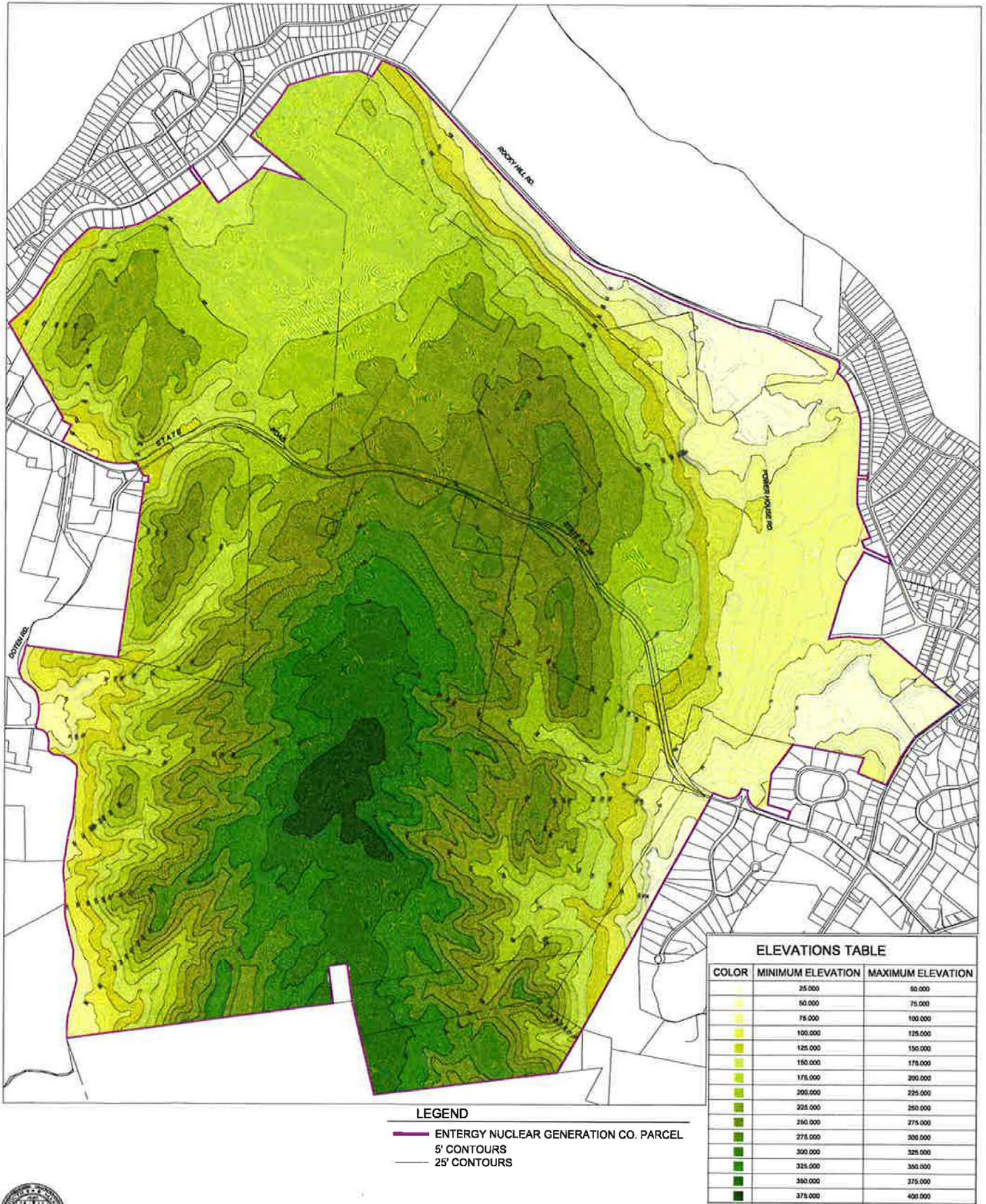


SCALE: 1" = 100'
 0 50 100 200
 N

JULY 5, 2017

Map 5-7
Developable Areas



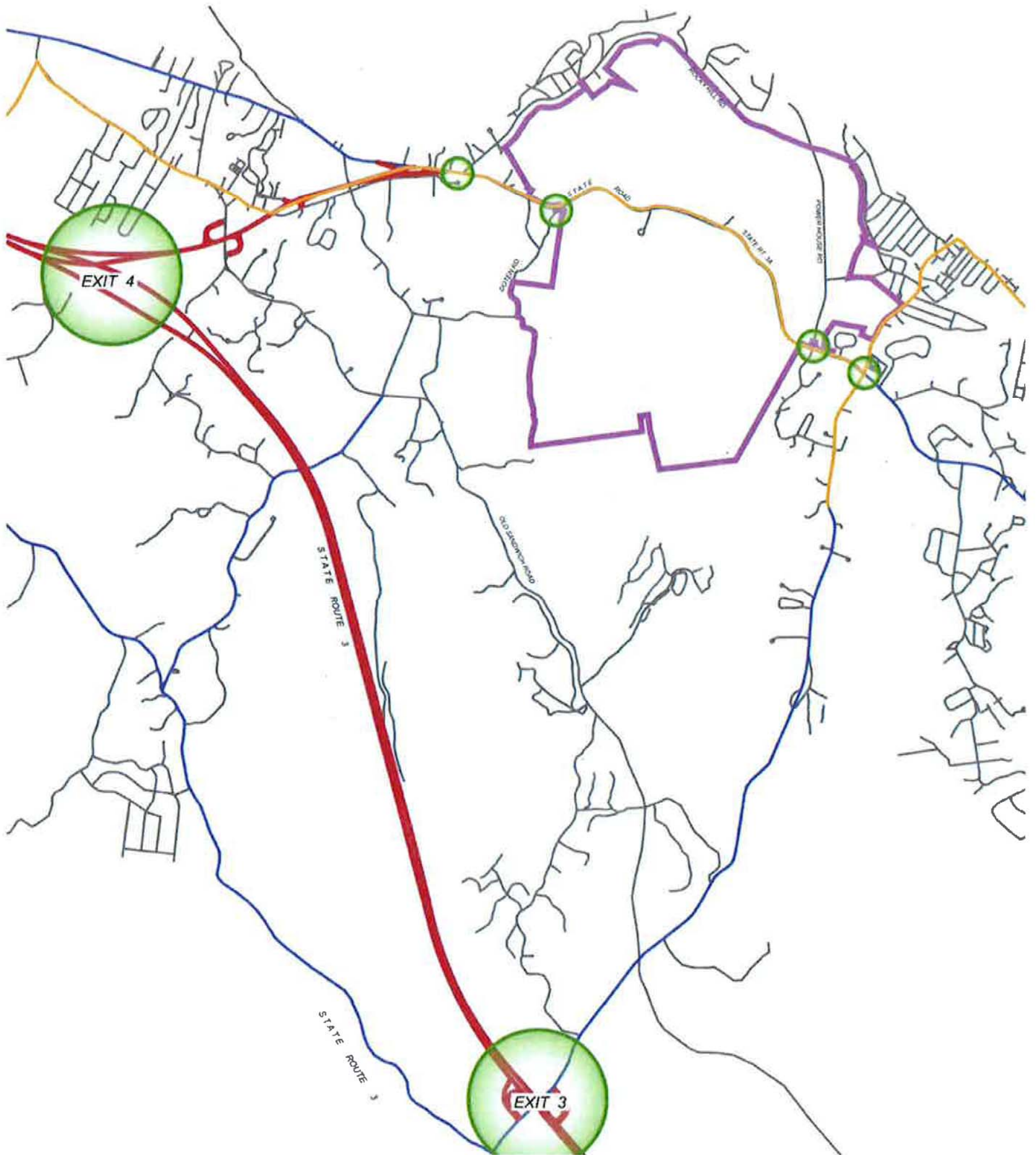


SCALE 1" = 100'
 0 50 100 200
 N







JULY 5, 2017

Map 5-8
 Elevation Map





LEGEND

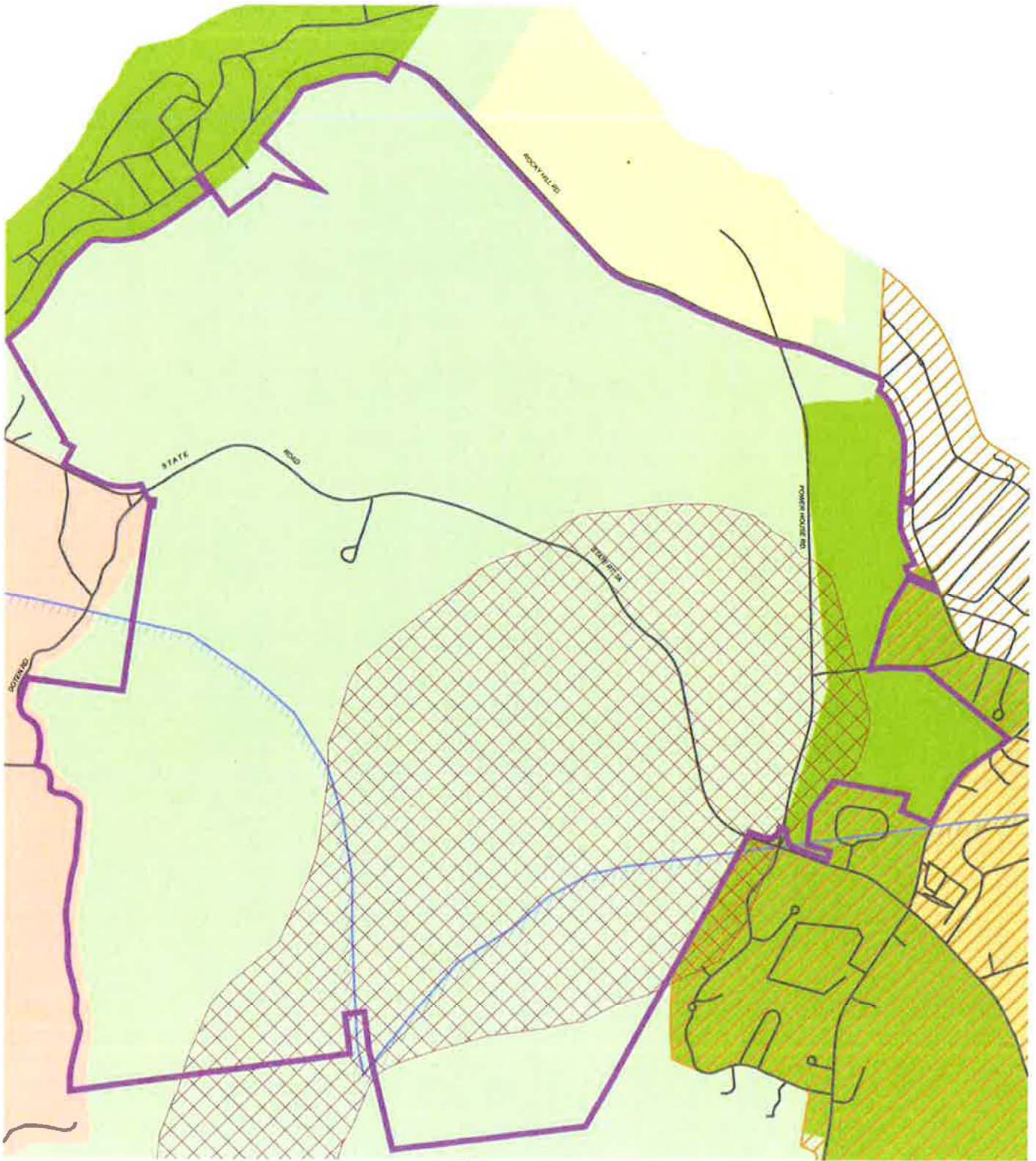
-  ENTERGY NUCLEAR GENERATION CO. PARCEL
-  LIMITED ACCESS ROADWAY
-  MAJOR STREET
-  LOCAL STREET
-  GATRA MAYFLOWER LINK
-  MAJOR INTERSECTION



JULY 5, 2017

Map 5-9
Transportation Network





LEGEND

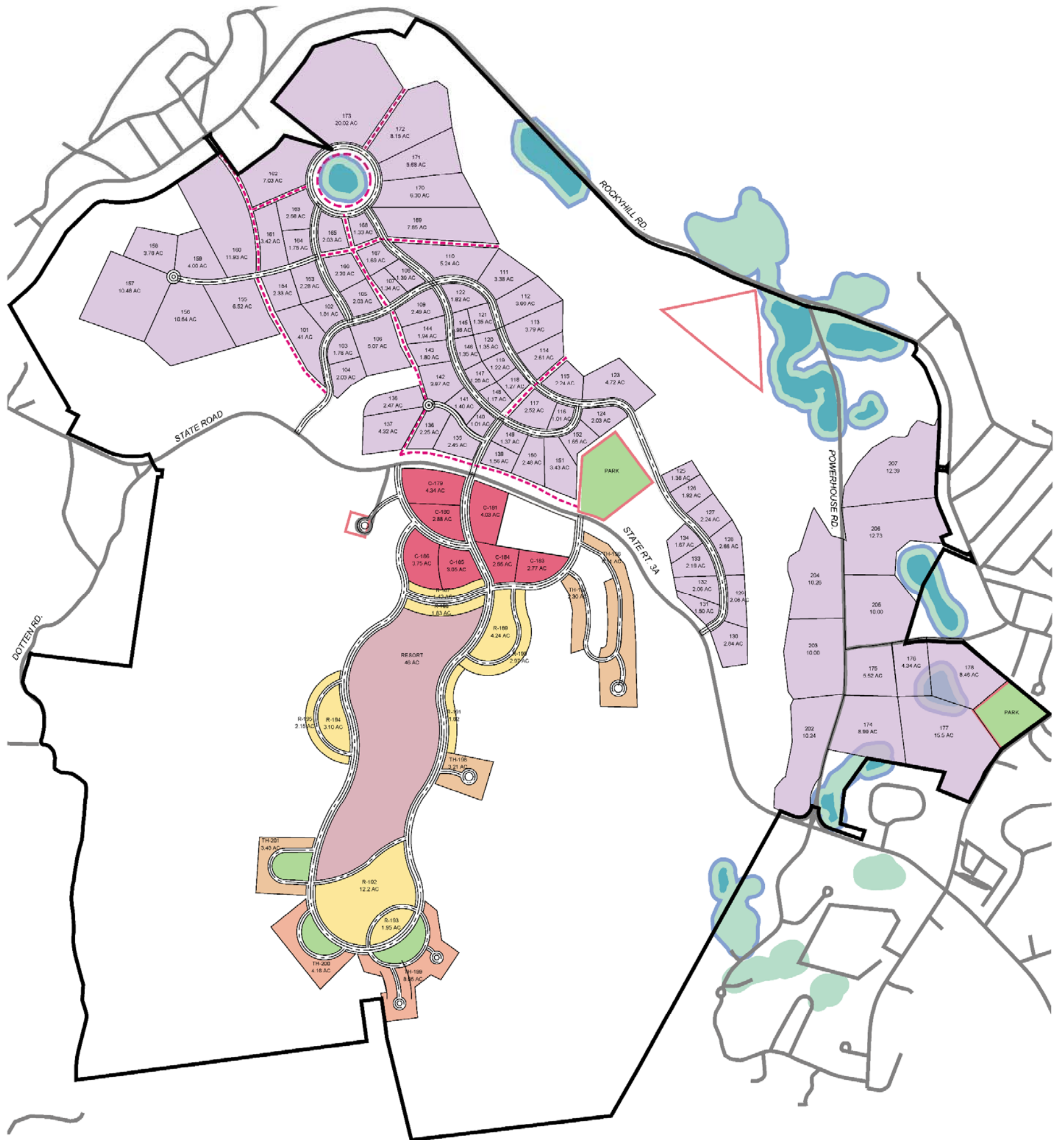
- ENTERGY NUCLEAR GENERATION CO. PARCEL
- (LI) LIGHT INDUSTRIAL
- (R-20MD) MIXED DENSITY RESIDENTIAL
- (R-25) MEDIUM LOT RESIDENTIAL
- (R-40) LARGE LOT RESIDENTIAL
- (RR) RURAL RESIDENTIAL
- CPSGD ZONING OVERLAY
- AREA 2 - PLANNED FUTURE WELL SITE
- AREA 3 - CONTRIBUTING AREA TO SIGNIFICANT RECREATIONAL WATER BODIES



JULY 5, 2017

Map 5-10
Zoning and Aquifer Protection





| DEVELOPABLE AREAS | |
|-------------------|----------------|
| NORTH OF RT. 3A | 360.6 AC. |
| SOUTH OF RT. 3A | 134.4 AC. |
| TOTAL | 495 AC. |

LEGEND

- ENTERGY NUCLEAR GENERATION CO. PARCEL
- ROADS
- PATH
- 100 FT WETLAND BUFFER
- MADEP WETLAND
- TOWN OWNED PROPERTY
- OPEN SPACE/ PARKS & RECREATION
- RESORT DEVELOPMENT
- SINGLE FAMILY RESIDENTIAL
- TOWN HOMES RESIDENTIAL
- COMMERCIAL
- OFFICE PARK/ LIGHT INDUSTRIAL



SCALE: 1" = 300'
 0 100 200 300 400 500
 N

Map 5-11
Hypothetical Development Concept

UPDATED FEBRUARY 12, 2018



6 TARGET INDUSTRY CLUSTER ANALYSIS

A. INTRODUCTION

The primary purpose of the target industry cluster analysis is to identify industry areas to focus recruitment and expansion efforts for the Town of Plymouth. This analysis can also be helpful in further defining appropriate land uses for redevelopment projects and the type of building best suited for these industries. While the target industry analysis itself combines metrics such as employment change, location quotient and local preference, the first step in this process is understanding what Plymouth currently offers existing and new businesses by assessing quality of life and site selection metrics. This chapter essentially serves as a strengths, weaknesses, opportunities and threats (SWOT) analysis that synthesizes the existing conditions to understand the assets and constraints in terms of economic development. Ultimately, this analysis is intended to guide the Foundation's approach to retaining and recruiting businesses within the identified target industries.

B. BUSINESS CLIMATE FACTORS

To assess the business climate factor that impacts the Town of Plymouth and Massachusetts, the consultant collected State rankings from Prosperity Now (formerly the Corporation for Enterprise Development) in Washington, DC. Prosperity Now is a non-profit organization that promotes economic vitality through increased economic competitiveness. It also gathers economic, financial and other relevant data on all fifty states. The Prosperity Now issues an annual *Development Report Card for States*, which ranks each state in 92 categories, of which 58 categories are included here. These categories fall under the sub-headings of: (1) Financial Assets and Income, (2) Business and Jobs, (3) House and Homeownership, (4) Healthcare, (5) Education.

While rankings systems are, by nature, built upon weighted criteria and do not provide the complete picture of the business climate in the Town of Plymouth and surrounding region, they are useful in measuring the State's performance relative to other states. This comparison provides practical and adequate methods for comparing the relative performance of Massachusetts in several important economic metrics.

The Prosperity Now data shown in Table 6-1 was sorted by the State's ranking among all fifty states and the United States (first column). The ranking system goes from one (the particular category) to 51 (the worst in a particular category). Prosperity Now also compares Massachusetts with the states of New York, New Jersey, Pennsylvania, Virginia and Connecticut. These states have been included in this analysis to provide a sense of how Massachusetts compares to states that can be considered competitors, in terms of economic development recruitment due to geographic and amenity similarities. In addition, "grades" are given on a curve: seven states get A's, nine states get B's, eight get C's, two get D's and four get F's.¹ The following narrative summarizes the findings in the 2017 Prosperity Now scorecard for Massachusetts.

¹ 2017 Asset and Opportunity Scorecard, Corporation for Enterprise Development <https://scorecard.prosperitynow.org/reports#report-state-profile>

Table 6-1
2017 Assessts and Opportunities Scorecard
Massachusetts and Select Competitive States

| Category | U.S. Data | MA Data | MA Rank | NY Rank | NJ Rank | PA Rank | VA Rank | CT Rank |
|---------------------------------------|-----------|-----------|----------|----------|----------|----------|----------|----------|
| FINANCIAL ASSETS AND INCOME | | | | | | | | |
| | | | B | C | C | C | B | B |
| Liquid Asset Poverty Rate | 36.8% | 30.4% | 10 | 19 | 11 | 9 | 12 | 13 |
| Asset Poverty Rate | 25.5% | 26.9% | 26 | 33 | 3 | 11 | 2 | 16 |
| Net Worth | \$76,708 | \$118,700 | -- | -- | -- | -- | -- | -- |
| Households with Zero Net Worth | 16.9% | 16.8% | -- | -- | -- | -- | -- | -- |
| Emergency Savings | 56.3% | 57.2% | 29 | 44 | 38 | 21 | 24 | 15 |
| Income Poverty Rate | 13.8% | 11.7% | 17 | 36 | 8 | 21 | 11 | 6 |
| Income Poverty by Race | 2.1 | 2.7 | 42 | 31 | 41 | 46 | 8 | 49 |
| Income inequality | 4.9 | 5.4 | 28 | 49 | 43 | 32 | 35 | 41 |
| Income Volatility | 20.9% | 20.2% | 17 | 10 | 5 | 27 | 1 | 19 |
| Unbanked Households | 7.0% | 5.7% | 25 | 35 | 32 | 18 | 17 | 29 |
| Underbanked Households | 19.9% | 16.0% | 9 | 42 | 7 | 22 | 26 | 5 |
| Households with Savings Accounts | 70.8% | 72.0% | 28 | 36 | 35 | 26 | 19 | 11 |
| Consumers with Prime Credit | 51.0% | 59.0% | 8 | 21 | 21 | 19 | 39 | 17 |
| One-Time Payers | 79.7% | 83.4% | 16 | 28 | 26 | 24 | 26 | 20 |
| Access to Revolving Credit | 71.9% | 79.1% | 3 | 4 | 2 | 24 | 17 | 13 |
| Bankruptcy Rate (per 1,000 people) | 2.4% | 1.2 | 9 | 14 | 34 | 19 | 33 | 18 |
| BUSINESS AND JOBS | | | | | | | | |
| | | | A | A | A | D | B | D |
| Microenterprise Ownership Rate | 18.2% | 15.9% | 31 | 2 | 22 | 47 | 42 | 30 |
| Small Business Ownership Rate | 1.5% | 1.48% | 20 | 14 | 18 | 28 | 44 | 21 |
| Business Ownership by Race | 1.22 | 1.5 | 27 | 5 | 29 | 16 | 4 | 31 |
| Business Ownership by Gender | 1.3 | 1.6 | 51 | 34 | 44 | 45 | 27 | 48 |
| Business Value by Race | 2.9 | 2.6 | 22 | 43 | 14 | 25 | 19 | 50 |
| Business Value by Gender | 3.0 | 3.6 | 46 | 31 | 11 | 28 | 17 | 51 |
| Unemployment Rate | 4.90% | 3.7% | 9 | 25 | 26 | 42 | 15 | 35 |
| Unemployment by Race | 1.6 | 1.6 | 20 | 15 | 11 | 45 | 28 | 36 |
| Underemployment Rate | 9.6% | 8.1% | 15 | 25 | 29 | 41 | 23 | 43 |
| Low-Wage Jobs | 24.2% | 15.5% | 5 | 12 | 10 | 23 | 20 | 7 |
| Average Annual Pay | \$52,942 | \$62,271 | 2 | 4 | 11 | 14 | 17 | 3 |
| Employers Offering Health Insurance | 45.7% | 52.4% | 5 | 14 | 3 | 12 | 20 | 16 |
| HOUSING AND HOMEOWNERSHIP | | | | | | | | |
| | | | F | F | F | C | B | F |
| Homeownership Rate | 63.0% | 61.7% | 42 | 50 | 38 | 11 | 32 | 23 |
| Homeownership by Race | 1.6 | 2.1 | 49 | 51 | 45 | 39 | 18 | 48 |
| Homeownership by Income | 2.2 | 2.9 | 48 | 49 | 45 | 25 | 9 | 46 |
| Homeownership by Gender | 1.03 | 1.07 | -- | -- | -- | -- | -- | -- |
| Homeownership by Family Structure | 1.9 | 2.3 | 49 | 47 | 44 | 35 | 16 | 45 |
| Foreclosure Rate | 1.55% | 1.88% | 37 | 50 | 51 | 35 | 7 | 44 |
| Delinquent Mortgage Loans | 1.41% | 1.53% | 31 | 47 | 50 | 44 | 20 | 37 |
| High-Cost Mortgage Loans | 7.6% | 2.0% | 3 | 12 | 26 | 18 | 11 | 10 |
| Affordability of Homes (value/income) | 3.5 | 5.0 | 48 | 46 | 45 | 19 | 36 | 35 |
| Housing Cost Burden: Homeowners | 29.6% | 32.60% | 44 | 46 | 49 | 23 | 28 | 45 |
| Housing Cost Burden: Renters | 50.6% | 51.30% | 42 | 46 | 47 | 28 | 32 | 44 |
| HEALTHCARE | | | | | | | | |
| | | | A | B | C | B | C | C |
| Uninsured Rate | 10.9% | 3.3% | 1 | 20 | 26 | 16 | 28 | 10 |
| Uninsured by Race | 2.1 | 1.9 | 21 | 37 | 44 | 19 | 22 | 49 |
| Uninsured by Income | 4.5 | 3.8 | 18 | 7 | 47 | 26 | 45 | 41 |
| Uninsured by Gender | 1.2 | 1.6 | 49 | 47 | 28 | 40 | 16 | 33 |
| Uninsured Low-Income Children | 6.6% | 1.7% | 3 | 7 | 31 | 27 | 36 | 20 |
| Employer Provided Insurance Coverage | 58.1 | 66.8% | 5 | 30 | 9 | 11 | 19 | 13 |
| Employee Share of Premium | 27.2% | 24.3% | 10 | 22 | 25 | 2 | 30 | 38 |
| Forgoing Doctor Visit Due to Cost | 13.3% | 8.6% | 7 | 25 | 28 | 22 | 25 | 15 |
| Poor or Fair Health Status | 17.5% | 14.6% | 14 | 29 | 23 | 26 | 21 | 17 |
| EDUCATION | | | | | | | | |
| | | | A | B | A | C | A | B |
| Early Children Education Enrollment | 47.6% | 59.0% | 4 | 5 | 2 | 21 | 17 | 3 |
| Math Proficiency: 8th Grade | 32.1% | 50.8% | 1 | 33 | 4 | 17 | 13 | 16 |
| Reading Proficiency: 8th Grade | 34.3% | 45.7% | 1 | 31 | 5 | 7 | 20 | 4 |
| High School Graduation Rate | 83.2% | 87.3% | 13 | 38 | 2 | 26 | 20 | 14 |
| Disconnected Youth | 12.3% | 8.2% | 7 | 23 | 26 | 24 | 16 | 12 |
| Four-Year College Degree | 30.6% | 4.15% | 2 | 10 | 6 | 26 | 7 | 5 |
| Four-Year College Degree by Race | 1.5 | 1.6 | 26 | 32 | 21 | 18 | 14 | 38 |
| Four-Year College Degree by Income | 4.4 | 3.7 | 16 | 26 | 20 | 38 | 34 | 33 |
| Four-Year College Degree by Gender | 1.02 | 1.0 | -- | -- | -- | -- | -- | -- |
| Average College Graduate Debt | \$30,100 | \$31,466 | 44 | 33 | 40 | 49 | 26 | 48 |
| College Graduates with Debt | 68% | 66% | 39 | 19 | 39 | 47 | 19 | 35 |
| Student Loan Default Rate | 11.3 | 6.1% | 1 | 6 | 11 | 14 | 12 | 8 |

Source: Prosperity Now, 2017

1. Financial Assets and Income

The Financial Assets and Income metrics measure wealth and income equity. From an economic development perspective, states with better wealth and income distribution tend to be more prosperous and have more dynamic entrepreneurial marketplaces. This issue is one of Massachusetts' strongest overall attributes, receiving a B grade in this category. The State performs well in-terms of liquid asset poverty and income poverty rates. Rankings were not provided in this scorecard for net worth involving Massachusetts and the given states, however, the average net worth of an individual in the State is estimated higher (\$118,700) in comparison to the United States data. In fact, the average net worth for an individual in the United States is approximately \$76,708. In terms of income poverty by race and inequality, Massachusetts ranks in the bottom half of states in addition to high emergency savings and a high portion of households who do not have a bank or savings account. A household is considered 'asset poor' if it "has insufficient net worth to support itself at the federal poverty level for three months in the absence of income."² This means that a low net worth and a high asset poverty rate are nearly universal across race and gender lines. Most of the potential remedies to improving net worth and asset poverty include policy changes at the State level such as the enforcement on regulation of the mortgage market and a state-level earned income tax credit.

2. Business and Jobs

Like the previous issue, the Business and Jobs metrics focus on the quality of jobs and access to business ownership for all residents. Massachusetts performance in the business and jobs category is strong too with an overall A grade. The state has the highest ranking for average annual pay at roughly \$62,271, which exceeds the U.S. annual average of \$52,942. Additionally, the state has a strong inventory of low-wage jobs at a rate of 15.5% as well as a top ten state for unemployment at 3.7%. Where Massachusetts is falling behind in the U.S., however, is business ownership and value by gender. That being said, Massachusetts' and Connecticut's business ownership and value ranking is the lowest among the competitive states. Overall, Massachusetts is fortunate because it has a low unemployment rate, a high rate for low-wage jobs and one of the highest rankings for average annual pay.

3. Housing and Homeownership

Massachusetts and the competitive states rank poorly in Housing and Homeownership metrics, which focus on access to quality housing and affordability for state residents. Massachusetts has a relatively low homeownership rate (61.7%), a high foreclosure rate (1.88%), a high rate of affordability of homes in terms of value to income (5.0), and a high ranking for household cost burdens involving homeowners (32.6%) and renters (51.3%), which exceeds the rates throughout the nation. This means that access to price appropriate housing is a substantial challenge in Massachusetts. This finding is not surprising, as housing affordability is a top priority in many communities throughout the Metro Boston area. The Town of Plymouth is not immune to housing price exclusivity and cost burdening. According to RKG Associates' findings, more than 50% of the ownership housing units in the Town are valued above what a household earning \$90,000 can afford, and prices are projected to increase. Similar concerns have been expressed by local real estate professionals regarding rental housing price appropriateness.

4. Healthcare

Healthcare insurance impacts economic development in that the uninsured may not seek essential medical attention and miss more work than their insured counterparts. In addition, the uninsured may incur high medical costs that inhibit their ability to cover other necessary expenses. Massachusetts has a higher share

² *Ibid*

of employees insured by their employees at approximately 66.8% in comparison to the U.S. as a whole (58.1%). In fact, Massachusetts contains a 3.3% uninsured rate, which has the highest ranking among the competitive states given. Where Massachusetts continues to score below average, however, is the uninsured rate by gender, which is consistent with the competitive states given in this report.

5. Education

The Massachusetts rankings related to education show that Massachusetts lends a lot of support to higher education. The Massachusetts population is highly educated, with 29.3% of the population holding four-year degrees. However, graduates in Massachusetts rank high in average college graduate debt. The Town of Plymouth benefits from being in a state with a high number of well-educated people and Plymouth has increased its involvement of educational programs to attract those seeking job and entrepreneurial opportunities.

6. Implications

As is the case with many cities and towns in Massachusetts, Plymouth possesses certain advantages and disadvantages related to economic development. From a state-level perspective, Plymouth benefits from being part of a larger economy that has experienced substantial success and growth. Many of the foundational pieces that make Massachusetts successful (i.e. quality education, access to healthcare, distribution of wealth, access to financial resources...) are present in Plymouth. Continuing to preserve and expand these attributes will benefit the Town's efforts. In contrast, housing diversity and affordability is the primary 'Achilles Heel' that Massachusetts and the Boston Metro area (including Plymouth). Embracing housing diversity (both in type and price appropriateness) likely would give Plymouth a competitive advantage in business retention, expansion, and recruitment.

C. TOP SITE SELECTION FACTORS

The consultant obtained site selection data from the 32nd annual survey of site selection decision makers published by *Area Development Magazine*, a site and facilities planning publication. The magazine also ranked the top site selection factors for 2000-2017 as identified by a sampling of America's corporate executives (Table 6-2). The information in the table highlights the relative importance of a variety of factors ranging from quality of life to available labor when making site selection decisions for businesses, and how that has changed over time. Although not specific to any area, the results of this effort indicate those factors that are most important when a company is considering relocation/expansion. This analysis helps to identify those attributes of Plymouth to highlight, in terms of marketing efforts, as well as identification of attributes that may need to be improved. The Town of Plymouth and surrounding region is competitive among five of the top ten site selection factors identified by corporate executives. These include:

- Highway Accessibility (2nd)
- Labor Costs (4th)
- State Incentives (3rd)
- Proximity to Major Markets (6th)
- Available Land (5th)

The results of the survey indicate availability of skilled labor and highway accessibility, which continually rank at the top of the list. Both factors are related to long-term operation costs. Other factors that could significantly impact long-term operation costs, include occupancy or construction costs (9th). Meanwhile, tax exemptions (5th), occupancy or construction costs (6th) and state and local incentives (9th) are more closely tied to initial start-up costs. While they remain relatively important, they are less significant than long-term operation costs.

Table 6-2
Site Selection Factor Ratings, 2000 - 2017
Corporate Survey

| | 2017 | 2015 | 2010 | 2005 | 2000 |
|---|------|------|------|------|------|
| LABOR | | | | | |
| Labor costs | 91.1 | 80.8 | 91.0 | 87.9 | 91.6 |
| Availability of Skilled Labor | 88.8 | 92.9 | 85.9 | 87.2 | 87.7 |
| Right-To-Work State | 74.7 | 67.7 | 67.9 | 69.7 | 72.9 |
| Training Programs | 72.8 | 68.7 | 56.7 | 59.6 | 57.2 |
| Low Union Profile | 71.4 | 66.3 | 75.4 | 77.0 | 79.7 |
| Availability of Unskilled Labor | 52.0 | 47.8 | 45.4 | 50.6 | 65.5 |
| TRANSPORTATION/TELECOMMUNICATION | | | | | |
| Highway Accessibility | 91.3 | 88.0 | 97.3 | 91.4 | 95.9 |
| Inbound/outbound Shipping Costs | 71.8 | 64.6 | 84.0 | N/A | N/A |
| Accessibility to Major Airport | 56.4 | 58.6 | 50.0 | 50.0 | 53.2 |
| Availability of Advanced ICT Services | 42.7 | 53.6 | 72.9 | 85.7 | N/A |
| Waterway or Ocean Port Accessibility | 31.2 | 24.0 | 21.9 | 20.2 | 21.0 |
| Railroad Service | 29.9 | 32.4 | 36.0 | 28.9 | 29.8 |
| FINANCIAL | | | | | |
| Occupancy or Construction Costs | 85.9 | 85.4 | 89.8 | 83.7 | 83.0 |
| Tax Exemptions | 85.9 | 74.7 | 90.9 | 83.6 | 81.6 |
| Corporate Tax Rate | 83.2 | 78.8 | 86.3 | 85.0 | 84.7 |
| State and Local Incentives | 81.3 | 75.8 | 89.3 | 86.0 | 83.6 |
| Energy Availability and Costs | 76.0 | 75.3 | 82.1 | 82.8 | 77.7 |
| Availability of Long-Term Financing | 64.6 | 67.7 | 58.5 | 56.5 | 58.4 |
| MARKET FACTORS | | | | | |
| Available Buildings | 75.9 | 83.7 | 81.0 | N/A | N/A |
| Available Land | 76.9 | 73.9 | 73.4 | 75.0 | 75.5 |
| Expedited or Fast-Track Permitting | 76.7 | 74.2 | 68.2 | N/A | N/A |
| Raw Materials Availability | 56.0 | 52.6 | 61.5 | 62.3 | 56.1 |
| Environmental Regulations | 70.2 | 69.8 | 74.8 | 71.1 | 80.9 |
| Proximity to Major Markets | 84.6 | 76.3 | 66.4 | 83.2 | 76.8 |
| Proximity to Suppliers | 76.4 | 64.3 | 63.6 | 66.7 | 63.8 |
| Water Availability | 55.3 | 54.6 | N/A | N/A | N/A |
| Quality of Life* | 87.2 | 87.6 | 62.1 | 54.7 | 58.8 |

Source: Area Development Magazine Corporate Survey, 2017

*Rating for prior years' surveys reflects the average rating of nine factors.

Additionally, there are several site selection factors that provide opportunities for the community to focus its effort and investment to overcome local statewide challenges. These include:

- Availability of Skilled Labor (1st)
- Availability of Buildings (5th)
- Proximity to Major Markets (6th)
- Local Incentives (3rd)

Most notably, Plymouth's labor force is comparatively large, and unemployment is relatively low. Having a large readily available labor force can impact recruitment efforts for larger employers (discussed throughout this document). In contrast, a challenge throughout the town is the availability of buildings.

Simply put, there are not many commercial and industrial buildings available for new prospects. Many that are available are not competitive due to the age, condition and size of the available space.

D. QUALITY OF LIFE FACTORS

The quality of life analysis examines the qualitative aspects of economic development. When performing a target industry analysis, it is important to understand the criteria that companies look for when deciding where to locate. This analysis focuses on the top five quality of life factors reported in the annual survey of site selection decision makers by *Area Development Magazine*.

1. Crime

The Town of Plymouth has a relatively low crime rate. The crimes per 1,000 people in Plymouth in 2011 were 15.9 per 1,000 people (Table 6-3). Since then the town experienced a slight increase by 2013 at a rate of 17.1 per 1,000 and experienced a notable decline at 9.2 per 1,000. That being said, Plymouth is one of the safest communities throughout the nation with a crime index of 76 and has a lower crime rate than 61% of the communities in Massachusetts.³ Currently, the crime per 1,000 people as dropped again to 8.04. Both violent crimes and property crimes per 1,000 are lower in Plymouth than the state of Massachusetts. This is to be expected given the geographical comparisons. The state contains various markets regarding urban areas, which tend to have higher crime rates than suburban areas. The low crime rate in Plymouth is a very positive attribute that would encourage businesses to locate to the Town.

Table 6-3
Crime Rate Comparisons
2011 to 2015

| | Town of Plymouth | | |
|-------------------------|------------------|------------|------------|
| | 2011 | 2013 | 2015 |
| VIOLENT CRIME | | | |
| Homicide | 2 | 0 | 0 |
| Forcible rape | 9 | 9 | 8 |
| Robbery | 16 | 18 | 11 |
| Aggravated Assault | 129 | 157 | 105 |
| Total | 156 | 184 | 124 |
| PROPERTY CRIME | | | |
| Burglary | 196 | 236 | 69 |
| Laceny-theft | 533 | 540 | 332 |
| Motor Vehicle Theft | 17 | 30 | 12 |
| Arson | 2 | 1 | 1 |
| Total | 748 | 807 | 414 |
| CRIME INDEX RATE | | | |
| Crimes per 1,000 people | 15.9 | 17.1 | 9.2 |

Source: U.S. Federal Bureau of Investigation, RKG Associates, Inc., 2017

Notes: Data source did not provide information for the years of 2012 & 2014

2. Healthcare Facilities

Plymouth businesses and residents have access to high quality healthcare, which is a highly important for quality of life factors included in the survey. Locally, the Town is served by several healthcare facilities. Specifically, Beth Israel Deaconess Hospital-Plymouth is the largest hospital in the Southern region of the South Shore. This site, in particular, can be easily accessible being located along Route 3/3A for patients with serious illnesses. The fact that healthcare is readily available would be considered a positive attribute for companies looking to locate in Plymouth.

3. Housing Costs

Housing costs are another important site selection factor that companies consider. Based on property assessment data gathered by RKG Associates, new buyers are willing to pay above the assessed market value for properties. Plymouth has a large concentration of single-family homes consisting of an average sales price of nearly \$469,573. A significant portion of the ownership housing is too expensive for certain

³ Information gathered from Neighborhood Scout <https://www.neighborhoodscout.com/ma/plymouth/crime>

households, which is commensurate to the Town’s low concentration of younger age cohorts. Additionally, the cost of rental housing in Plymouth is not very affordable, as the average unit rental rate for 1-3-bedroom units range from \$1,912-\$2,466⁴. For younger persons or young professionals, this rental rate is noticeably high and not affordable for persons receiving an annual income of \$40,000 or below.

4. Housing Availability

Limited housing options and higher-valued households throughout the town have demonstrated inconsistency of housing supply and demand. Approximately 13% of all the housing units in Plymouth are considered vacant or seasonal due to its vacation/beach influence from the Cape Cod. Since 2002, new construction has been targeted at the higher-end of the market place for both ownership households and multifamily rental households. This means that new households moving to the Town may have a more difficult time finding a place to live that is affordable. Ultimately, the limited supply of housing options, especially rental housing units could detract businesses with some low-and moderate-income workers from locating to the Town.

5. Ratings of Public Schools

Each year the Massachusetts Department of Education issues various report cards on every school throughout the state. The RKG Team obtained a report involving enrollment trends of the public-school districts in the Town of Plymouth. Specifically, the consultant analyzed the total enrollment for each school at different educational levels (elementary, middle school, high school) from 2013-2017 (Table 6-5). Ultimately, a community with a proficient school system is an important quality of life factor and is complimentary towards economic development efforts.

Table 6-5
Public School District Enrollment (K-12)
Town of Plymouth, MA (2013 - 2017)

| | 2013 | | 2014 | | 2015 | | 2016 | | 2017 | |
|--|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|
| | Count | % Total | Count | % Total | Count | % Total | Count | % Total | Count | % Total |
| ELEMENTARY SCHOOL | | | | | | | | | | |
| Cold Spring | 247 | 6.9% | 244 | 6.9% | 237 | 6.9% | 248 | 7.3% | 255 | 7.5% |
| Federal Furnace | 422 | 11.8% | 418 | 11.9% | 399 | 11.5% | 412 | 12.2% | 386 | 11.4% |
| Hedge | 220 | 6.1% | 223 | 6.3% | 233 | 6.7% | 210 | 6.2% | 154 | 4.6% |
| Indian Brook | 663 | 18.5% | 610 | 17.4% | 600 | 17.4% | 566 | 16.7% | 567 | 16.8% |
| Manomet | 334 | 9.3% | 323 | 9.2% | 310 | 9.0% | 304 | 9.0% | 287 | 8.5% |
| Mount Pleasant/Plymouth Early Childhood Center | 108 | 3.0% | 78 | 2.2% | 100 | 2.9% | 116 | 3.4% | 140 | 4.1% |
| Nathanial Morton | 572 | 15.9% | 610 | 17.4% | 580 | 16.8% | 591 | 17.5% | 547 | 16.2% |
| South | 628 | 17.5% | 643 | 18.3% | 615 | 17.8% | 549 | 16.2% | 653 | 19.3% |
| West | 394 | 11.0% | 364 | 10.4% | 381 | 11.0% | 389 | 11.5% | 394 | 11.6% |
| Total | 3,588 | 100.0% | 3,513 | 100.0% | 3,455 | 100.0% | 3,385 | 100.0% | 3,383 | 100.0% |
| MIDDLE SCHOOL | | | | | | | | | | |
| Plymouth South Middle | 811 | 44.1% | 846 | 46.2% | 842 | 45.9% | 837 | 45.6% | 724 | 41.3% |
| Plymouth Community Intermediate | 1,027 | 55.9% | 986 | 53.8% | 994 | 54.1% | 997 | 54.4% | 1,027 | 58.7% |
| Total | 1,838 | 100.0% | 1,832 | 100.0% | 1,836 | 100.0% | 1,834 | 100.0% | 1,751 | 100.0% |
| HIGH SCHOOL | | | | | | | | | | |
| Plymouth North | 1,216 | 51.2% | 1,285 | 54.5% | 1,326 | 56.6% | 1,307 | 56.0% | 1,281 | 53.9% |
| Plymouth South | 1,160 | 48.8% | 1,073 | 45.5% | 1,017 | 43.4% | 1,026 | 44.0% | 1,095 | 46.1% |
| Total | 2,376 | 100.0% | 2,358 | 100.0% | 2,343 | 100.0% | 2,333 | 100.0% | 2,376 | 100.0% |

Source: Massachusetts Dept. of Education, RKG Associates, Inc., 2017

There is a total of nine elementary schools in the Town of Plymouth. In 2013, Plymouth contained a total of 3,588 students enrolled. Indian Brook Elementary had the highest concentration of students enrolled, a net total of 663 students, which is approximately 18.5% of the total students enrolled in Plymouth

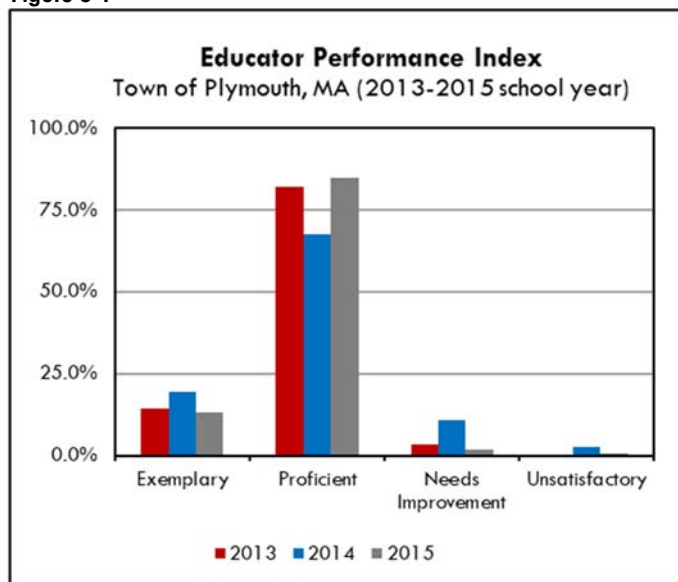
⁴ Multifamily rental household data was obtained from apartments.com and REIS Reports, 2018

elementary schools. However, by the 2017-2018 school year the student enrollment dropped at a total of 96 students. Other notable elementary schools consist of South Elementary (628 students) and Nathaniel Morton Elementary (572 students). In total, Plymouth elementary schools experienced a decline at a net loss of 205 students. Further, elementary schools exhibited an annual loss of roughly 1.1% during this five-year period. This is commensurate with the Town’s middle school enrollment. Of the two middle schools, Plymouth South Middle School experienced a loss of 87 students during the same period going from 811 to 724 students, which is nearly a 1% loss annually.

In contrast, roughly 55.9% or 1,027 students attended Plymouth Community Intermediate in 2013. The following year, student enrollment dropped to 986 students, however began experiencing gains in 2015 and 2016. By 2017, student enrollment was back to its net total from 2013. This is partly attributed to the addition of the Plymouth Early Childhood Center students. In the late summer of 2016, the Mount Pleasant Preschool closed and transferred its program to a vacant wing within the middle school. After a 111-year run of educating local children, the building closed to enhance the preschool program. The status of the old Mount Pleasant School remains uncertain; however, the building will likely be converted to housing.⁵ In regard to the Town’s high school student enrollment, approximately 51.2%- 53.9% of students at this educational attainment level attended Plymouth North High School between the 2013 and 2017 school year. In 2014, nearly 56.6% of the Town’s high school students attended Plymouth North, which is approximately 13.2% more of the student enrollment at Plymouth South. Even with stagnant trends during the 5-year period, the Town did not experience an annual loss of students enrolled in the Town’s high schools.

The loss of student enrollment at this level of education is not out of the ordinary for Plymouth or other communities in Massachusetts. Based on RKG Associates’ findings from previous chapters, Plymouth experienced a decline of persons within the age group of 0-14. Between 2010 and 2016, the town exhibited a net loss of roughly 681 persons. This indicates that family-forming households are seeking school located elsewhere or outside of the Plymouth public school district. In some cases, families factor in the proximity of the school to their home, the quality of the educational curriculum, which may lead to private school enrollment, or the overall educator performance.

Figure 6-1



Source: Massachusetts Dept. of Education and RKG Associate, Inc., 2018

Between 2013-2015, school districts throughout Massachusetts were required to implement educator evaluation systems that aligned with the Educator Evaluation Framework. The purpose of this evaluation is to promote student learning, growth, and achievement, which provides educators with feedback for improvement and to enhance opportunities for professional growth. Each educator from the district received one of four ratings (%) on each Performance Standard – [1] Exemplary, [2] Proficient, [3] Needs Improvement, [d] Unsatisfactory (Figure 6-1). Between 2013 and 2015, a high concentration of educators that were assessed within the Plymouth school district were given a proficient or exemplary rating. This indicates that the quality of education in the Town is not causing the loss of enrollment within their elementary schools. It

⁵ <http://plymouth.wickedlocal.com/news/20160817/plymouth-public-schools-final-bell-sounds-at-111-year-old-mount-pleasant-school>

may indicate that family-forming households are seeking education elsewhere for their children due to affordability and limited housing options that exists within Plymouth.

E. COMPETITIVE ASSETS AND CONSTRAINTS

The Plymouth Regional Economic Development Foundation (REDF) leadership, the Town's elected officials and staff, local businesses and the Consultant worked together to identify the economic development strengths and weaknesses for the Town of Plymouth. Based on this effort, the RKG Team categorized these findings into five distinct categories, [1] economy, [2] marketing and outreach, [3] workforce and education, [4] policy and regulation, [5] housing. The following narrative highlights the most significant strengths and weaknesses identified through scheduled project coordination meetings, discussions with community stakeholder groups, and interview with potential implementation partners. Adjustments and additions were made by the RKG Associates Team based on the market findings reported in the previous chapters.

1. Economy

a.) Strengths

The Town of Plymouth consistently has been a driving economic engine for Plymouth County and the surrounding region. The town is known for its historical make up and tourist attractions. From an economic development perspective, town leaders and officials should continue to enhance the town's tourism and destination visitorship through strategic marketing investments, new asset development, and regional partnerships. Further, promoting continued fiscal growth for the Town should support these potential opportunities by attracting investment that creates a net positive impact to the Town's general fund.

b.) Weaknesses

Plymouth has consistently seen growth in population and has started to attract younger age cohorts in recent years. However, several limitations involving limited household options, affordability and job opportunities has disallowed Plymouth to reach its full economic potential. That being said, enabling new real estate assets within the Town can support the expansion of the community's economic development potential and capacity. Further, implementing effective, realistic improvements to the economic development permitting processes while eliminating redundancies can support this effort.

2. Marketing and Outreach

a.) Strengths

Plymouth has access to many governmental, non-profit, and private organizations focused on economic development within the town and surrounding region. These partners can provide both capital and professional support to the Town in implementing the EDS, further leveraging local resources. Additionally, these entities can provide a greater perspective on local issues and decisions through their collective history and experience. Fostering these relationships will be substantially beneficial in the Town's marketing and recruitment efforts.

b.) Weaknesses

Based on the analysis, there are substantial opportunities to improve awareness of the Town's economic development efforts. As with any community beginning a new economic development initiative, Plymouth will have to define the roles and responsibilities for implementation. Given there are existing entities involved in economic development, the Town needs to work with these groups to ensure implementation is complementary, and not competitive. Simply put, there needs

be greater effort given to engage and educate the Town's residents and business owners. It has been revealed that local stakeholders have a varying degree of understanding what economic development is, how the Town is pursuing economic development opportunities, and why those actions are beneficial. Ultimately, engaging the local community will increase awareness and improve buy-in strategies.

3. Workforce and Education

a.) Strengths

The Plymouth labor force has experienced a robust growth of highly educated participants over recent years. While this factor alone does not make Plymouth a primary location for prospective businesses, it does indicate the labor force has the capacity to learn and adapt to new skill requirements. This is particularly true for companies that demand high-skilled labor (i.e. research firms and corporate headquarters). Additionally, the education and workforce development efforts are robust in Plymouth. In addition to the traditional colleges and universities in the Greater Boston area, Plymouth has area and regional colleges that offer non-traditional, continuing education, and workforce development opportunities (i.e. Quincy College, Curry College, Bridgewater College, Cape Cod Community College) programs and curriculum to expand a student's skill level and increase opportunities for employment. Further, the institutions work with local businesses that offer internships and employment while a student is enrolled to gain experience. These are valuable resources when refining business retention and recruitment efforts, as a trained, qualified workforce is frequently noted by site selection professionals as the most important site selection criteria.

b.) Weaknesses

While Plymouth does present strong workforce and educational development efforts, there are still limited job opportunities as well as a low concentration of diverse occupations for various age groups. Ideally, pursuing special legislation to enable Plymouth to provide local job tax credits for start-up production-based companies with less than 10 employees will support the Town's economic development goals for business recruitment. However, most residents commute into the Boston metro area for those individuals that are employed by larger companies. From an economic perspective, the work-live-play concept has started to become a new market segment at a national level. This strategy can create a substantial amount of opportunities for various markets involving retail, housing, and office space while steering the Town's economic growth to its full potential.

4. Policy and Regulation

a.) Strengths

Plymouth's leadership and elected officials as well as the Town's staff have engaged in the EDS process since the beginning and has expressed support of initiating more strategic economic development efforts. These individuals should continue to implement initial recommendations concurrent with the completion of this strategy. These actions are an important and necessary first step for the Town to indicate it is willing to be an active, supportive partner in future economic development efforts.

b.) Weaknesses

The RKG Team was told numerous times during this process that Plymouth has a reputation as a difficult place to invest in new development and doing business. Creating a clear, predictable, and consistent permitting and entitlement process for business expansion and development can potentially resolve these issues. Further, authorizing administrative approvals of small projects that

meet defined criteria established in the Town's bylaws and regulations can support this effort as well.

5. Housing

a.) Strengths

Plymouth has established and maintained a high quality of life compared to other areas and communities in Plymouth County. This desirability as a place to live has continued to place positive pressure on the housing market. The Town's high quality of life will continue to create demand for new housing opportunities in Plymouth. Plymouth's neighborhoods have remained stable despite the impacts of the most recent recession. Additionally, majority of households are in proximity to regional market as the Town's entertainment, shopping and employment centers are along Route 3.

b.) Weaknesses

A substantial amount of Plymouth's housing supply is single-family households and this high concentration of households has caused concerns for the new market segments that are entering the region and cannot be accommodated within the Town. Most notably, existing residents of the Town, specifically older age groups, are starting to seek smaller, more easily maintained housing as their children grow and move out. Another growing market segment is the young professional group that wants the convenience of living near their job, but do not want the requirements of home maintenance or ownership. Both groups provide an unmet opportunity to expand Plymouth's consumer base and strengthen the local commercial market.

Additionally, Plymouth's housing supply is comparatively expensive throughout the Town and surrounding regional market. While there are limited numbers of comparatively affordable ownership and rental housing options, the supply is inadequate to meet the demand. This issue correlates with the lack of housing variety, as the housing types mentioned above oftentimes are more affordable than traditional single-family houses. Increasing the variety while lowering the cost of housing will have positive impacts on the diversity of Plymouth's labor force.

F. TARGET INDUSTRY ANALYSIS

1. Overview

This analysis "casts a wide net" in determining potential target industries. Taking a more aggressive approach to identifying possible industry targets for the Town of Plymouth will assist the Foundation in identifying a range of industries for future development and redevelopment opportunities. In this context, aggressive means that the screening process was inclusive rather than exclusive relative to potential opportunities that may appear marginal considering historical economic trends. Being inclusive at this phase ensures any potentially viable options can be tested before being eliminated.

Furthermore, the target industry lists move beyond just static targets. They identify vertical (supply-chain) and horizontal (market) relationships within the primary target markets. By using this methodology, the Foundation can apply a comprehensive approach to building upon existing industry clusters and developing new ones. This is particularly important when targeting industries that already have a relationship with an existing regional industry and/or business.

The following section discusses the rationale used to describe how the above findings were incorporated into the industry screening process. Based on the assets and constraints summarized earlier, the consultants initiated a review of primary and secondary source materials to identify a broad range of potential industries

that appear to be either compatible with the Town’s location/labor assets or marginally affected by known constraints. This process has several purposes when undertaken as part of an economic development strategy including:

- Establishing a framework for matching the Town’s available “product” (land, utilities, intangibles, etc.) to potential markets;
- Identifying a receptive “audience” for a focused marketing campaign;
- Understanding the characteristics, size and long-term growth potential of compatible markets;
- Establishing priorities for the allocation of marketing resources; and
- Identifying prospect industries for further consideration.

2. Industry Screening

Industry cluster analyses involve examining the economic relationships among commercial and industrial sectors. From the cluster analysis, RKG Associates identified those industries that may enjoy a competitive advantage within the South Shore region but would also benefit from Plymouth’s strategic location. The underlying assumption of the cluster analysis is that companies concentrate in areas where they enjoy some competitive advantage. These advantages, whether related to location, natural resources, vendor relationships or other factors, allow companies to compete more successfully.

An industry cluster is a group of companies in industries that are related in one of three ways:

- Buyers and Suppliers – the most common relationship
- Competitors – producers of same or similar goods and service, usually firms in the same or similar industries
- Shared Resources – companies that rely on the same location- specific resources such as labor and raw materials

This industry cluster analysis provides a method for determining local competitive advantage – which in turn is crucial in attracting investment, be it through attracting firms or expanding existing firms. The industry cluster analysis will rely on a statistical cluster identification process designed to incorporate and assimilate local (Plymouth County), and the Surrounding Market (defined as Barnstable County, Bristol County and Norfolk Counties) economic data. The fundamental criteria analyzed in the process include:

- Industry Growth – Industries with growth over the past four years (2011-2015) and those that are most likely to grow both locally and regionally.
- Industry Size – Component industries of an industry cluster must have sufficient size in terms of total employment, number of establishments and total sales to justify their inclusion in the cluster.
- Industry Concentration – RKG Associates examined current concentrations of each industry in Plymouth County (detailed cluster data is not available at the Town level). Low concentrations of employment and establishments suggest that a given industry may not be well suited for a given region.
- Local Fit – Local fit includes both quantitative analysis and considerable professional judgment, based on community characteristics, industry preferences, specific industry composition and location-based activity. Local infrastructure was analyzed including the presence of highways, utility costs, telecommunications service level, and the match of the region’s labor force profile with industry needs. Special attention was paid to target industries already identified by the Commonwealth and the South Shore Chamber of Commerce.
- Other Criteria – Includes skilled and professional workforce requirements by industry, tendency of given industries to concentrate in Plymouth, and job training resources available to local businesses.

Focusing development efforts on space that is suitable to businesses in these industry clusters will likely enhance the Town's chances for economic success. However, the industry targeting analysis was not restricted to only known industry clusters. A broad range of industry categories was analyzed from manufacturing, distribution and transportation, to high-end services. The result is a full range of options for Plymouth to consider and will be highlighted in the opportunity sites discussion in Chapter 8 when appropriate.

3. Industry Strength

A relative measure of how a local economy is performing can be estimated by comparing employment growth for specific industry sectors to that of a larger economy. This measurement, which is represented as a ratio, is referred to as a Location Quotient (LQ). If the LQ is near 1.0, it indicates that the study area has a comparable proportion of its employment base in each sector to that of the larger area, which in this case, is the United States. If the ratio is less than 1.0, then the study area is under-performing in that industry sector relative to the country. Conversely, an LQ greater than 1.0 indicates a stronger performance by the study area overall. In this analysis, the LQ's and their respective growth rates, were developed based on employment changes between 2011 and 2015 and the analysis was conducted for both Plymouth County and the Surrounding Region (Barnstable, Bristol, and Norfolk Counties) using information from the U.S. Census Bureau (County Business Patterns). The Location Quotients are current as of 2015.

Figures 6-2 and 6-3 show industry sector strength for the two study areas. The size of the bubbles in these figures represents total employment. Their position from left to right indicates their LQ for 2015, and their position from top to bottom indicates growth rate between 2011 and 2015. Not all sectors are visible in each of the figures. Those that represent relatively small components of the economy, those with very low or very high LQs or those that were positioned behind larger sectors within the figure have been included within the inset. Unclassified positions were not included in this analysis.

Notable findings from the analysis of industry strength are as follows:

- Plymouth County and the Surrounding Market have employment concentrations similar to the U.S. as a whole. The four largest industry sectors (by employment) are consistent across all three study areas: [1] Health Care and Social Assistance, [2] Retail Trade, [3] Accommodation and Food Services, and [4] Manufacturing. That said, Plymouth County has some specific relative concentrations of employment compared to national averages. Most notably, Plymouth County has stronger concentrations of production-based businesses including Construction (1.66 LQ) and Manufacturing (1.25 LQ).
- Local employment and establishment trends also have been following national trends, as Plymouth County and the Surrounding Region have continued their transition from production-based businesses and employment to service-based businesses and employment. Since the economic downturn began, Plymouth County has experienced a net increase in employment of almost 6,000 jobs (a 23.8 increase). However, production-based industry sectors (Agricultural, Mining, Utilities, Construction, and Manufacturing) each have experienced a net decline, with a cumulative loss of more than 3,500 jobs. While growth in service-based industry sectors has varied since 2007, the collective group has experienced a net gain of almost 9,500 jobs.

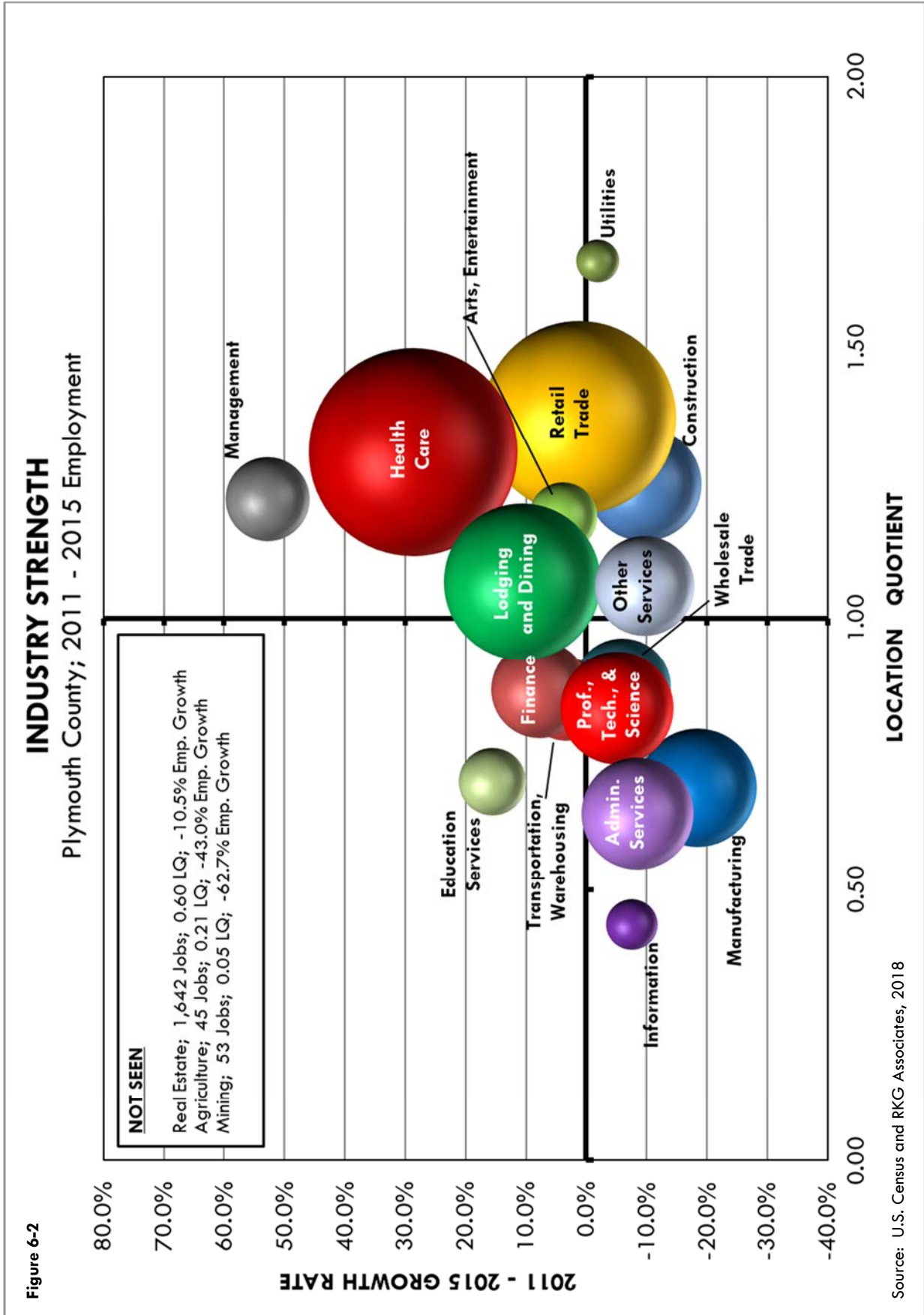


Figure 6-2

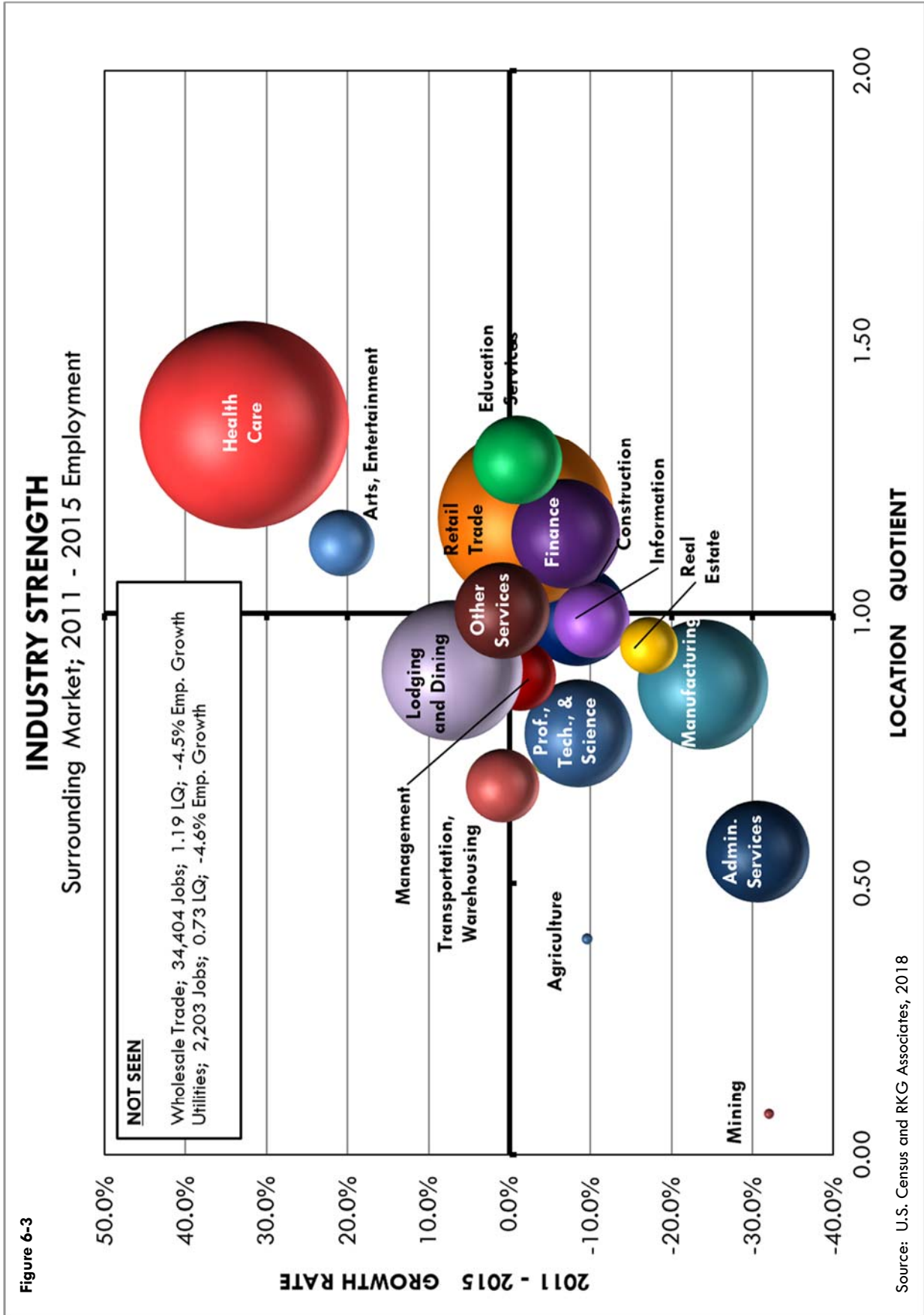


Figure 6-3

- The Manufacturing industry sector in Plymouth County is small, but diverse, having 20 different industries represented locally. The Fabricated Metal Product and Computer and Electronic Product industries represent the largest share of the County's 10,522 Manufacturing jobs. That said, Manufacturing employment is declining locally and regionally. Plymouth County experienced a net Manufacturing employment loss of 18.5% between 2011 and 2015, while the Surrounding region lost 23.8%. This finding is consistent with national trends and reflects the continued impacts of automation as well as the loss of competitiveness domestically. More to the point, this finding indicates specific effort will need to be made to preserve the existing production businesses and attract new ones.
- Health Care and Social Assistance represents the largest and fastest growing industry sectors for both Plymouth County and the Surrounding Region. While part of this growth is simply following national trends towards greater provision and availability of health care, demographic data indicates Plymouth County (and the Town) are experiencing substantial increases in adults aged 55 years and older. Plymouth County, and the Town in particular, is well situated to capture more of this opportunity given the presence of Beth Israel Deaconess Hospital and it being an economic center for the South Shore.
- The Management of Companies and Enterprises industry sector experienced substantial employment growth in Plymouth County since 2007. The number of jobs in this industry sector increased from 3,481 in 2007 to 5,320 in 2015, for a 52% increase. The finding reflects the impact of the Boston MSAs continued success in economic growth and expansion, and how edge communities have benefitted from offering both good proximity to the urban core and relative value in acquisition and operation costs. RKG has seen similar occurrences in other edge communities as well (i.e. Marlborough and Worcester in Metro West). Creating a specific vision for retention and recruitment of corporate headquarters, particularly for smaller firms (under 250 people) could be a source of success for the Town.

4. Analysis Findings and Recommended Actions

Table 6-5 at the end of this section provides a synopsis of the recommended target industry clusters for the Town of Plymouth. The following narrative provides greater depth into the top clusters identified.

Professional Services and Corporate Operations

The Town of Plymouth is in an enviable position regionally. Located along Route 3 just north of Cape Cod, the Town offers the combination of proximity to downtown Boston as well as world-class recreation and vacation amenities. Plymouth also provide relative value from a cost of living perspective than closer-in communities. This balance of access, value, and separation has proven attractive for businesses and individuals throughout the United States. To these points, Plymouth has the potential to attract and retain professional service businesses and corporate offices that have an interest in taking advantage of these assets.

From a business level, the County and Surrounding Market have experienced success in attracting Professional, Scientific, and Technical Services firms (Strong), Management of Companies and Enterprises (Very Strong – Plymouth County), and Finance, Insurance, and Real Estate (Strong – Surrounding Market). Given the scale of Plymouth's workforce and available building inventory, focusing on small to mid-sized businesses under 50 employees most likely will yield the greatest success. These companies will have relatively less challenges finding sufficient labor and oftentimes rely on CEO/owner preference for location rather than a corporate board decision. This benefits Plymouth due to the previously mentioned balance of market access and quality of life.

Plymouth also has the potential to target individuals who work in this cluster as well. As virtual offices and telecommuting continue to expand in popularity and use, Plymouth could capitalize on its high quality of life and technology amenities to target individual workers. The recruitment strategy is different for this group, as the Foundation would be selling Plymouth as a place to live as much as a place to work. To this point, the attraction process is more general advertising (since the specific business is not as much a factor) than industry specific. That said, this effort is recommended to be tailored to higher income, more established professionals in the short-term to maximize success. Efforts to diversify the Town's housing supply and increase its entertainment/recreation amenities for adults will help expand the target audience over time.

Recommended Actions -

- **Primary:** Focus a recruitment strategy towards professional service and regional headquarters businesses in the urban centers of New England and the Mid-Atlantic. Target markets include Boston, Providence, Hartford, New York City, Philadelphia, and Baltimore/Washington DC. Specific focus should be for businesses with 50 or fewer employees
- **Primary:** Develop a quality of life marketing campaign targeting leisure periodicals and local newspapers to be run in New England, the Mid Atlantic and the Midwest touting Plymouth as a technologically advanced, high quality of life location for telecommuters and virtual employees.
- **Secondary:** Consider a Downtown strategy that focuses on enhancing office space instead of retail space along side streets and as part of mixed-use buildings. Focusing office space along the interior streets of Downtown would retain the visibility of major thoroughfares for retail businesses while creating the opportunity to expand the office inventory.
- **Secondary:** Perform a business incubator/co-work space feasibility to determine the financial and fiscal costs/benefits of creating a physical location for telecommuters/virtual employees to have short-term space within Plymouth.
- **Long-Term:** Encourage infill/redevelopment focused on office development in strategic locations. Examples of possible locations include the redevelopment strategy for The Grove, the Entergy Site, and the conceptual commerce park near Exit 3 (more details in Chapter 8).

Technology-Based Production

Despite the general decline in manufacturing employment locally, regionally, and statewide, Massachusetts has several technology-based production industries that are thriving and remain a priority for the Commonwealth. Most notably, efforts in technology companies and biotechnology companies that created the Route 128 corridor are spreading to other parts of the Commonwealth, notably Worcester. The employment and establishment data revealed that Plymouth County and the Town have benefitted from the inertia of this industry sector. As mentioned, the Electrical Equipment, Appliance, and Component (Strong), Fabricated Metal Products (Moderate), and Computer and Electronic Product (Moderate) all have a substantial local presence.

To this point, the Town can expand its success in technology-based production companies with a more proactive and targeted outreach effort. Creating a narrative that shows companies that operate within these sectors or provide support services to these sectors (i.e. back office support, data warehousing...) could be attracted to Plymouth's value/proximity proposition. The recruitment and outreach strategy for technology-based production businesses (and their support industries) is an ideal opportunity for the Foundation to initiate joint marketing efforts with regional and statewide partners (i.e. the South Shore Chamber). Most notably, conferences and events in these sectors oftentimes are international, and therefore expensive.

Creating these coalitions could defray costs while providing Plymouth with a leadership role in decision making and execution.

One of the challenges the Town faces is physical capacity to accommodate additional businesses. It has been documented through this analysis that existing companies seeking to expand have challenges in finding the appropriate space and/or expanding their existing facilities. The Implementation Strategy Chapter provides several recommendations on how to address the physical/infrastructure needs to expand existing facilities and site new ones.

Recommended Actions –

- **Primary:** Create a detailed inventory of existing buildings and sites within the Town available for production-based activity. Use this data, in combination with feedback from existing cluster businesses in Plymouth, to determine a marketing strategy for existing vacancies; and a development strategy to address supply shortages in the marketplace.
- **Secondary:** Build existing relationships with the South Shore Chamber, The Massachusetts Office of Business Development, and any other regional economic development entity that would be a strategic ally in production-based company recruitment to the region.
- **Long-Term:** Identify areas of Plymouth that can be zoned to accommodate production-based economic development, particularly along the Route 3 corridor near Plymouth's interchanges. Priority should be given to areas with good transportation, utility, and infrastructure access (particularly the Town's high-speed data infrastructure). More detail about potential locations is provided in Chapter 8.

Food Production and Processing

Plymouth County has an existing cluster of Food Production and Processing (Strong), particularly in Fruit and Vegetable Preserving (i.e. cranberry bogs) and Bakery and Tortilla Manufacturing (i.e. Concord Foods). This cluster provides an opportunity for the Foundation to engage these businesses to discover additional recruitment opportunities (i.e. suppliers) and help address any concerns/growth opportunities for expansion. Greater outreach to the largest employers is a good first step, but holding regular industry roundtables with a larger representation of the sector would be beneficial to long-term sustainability.

Aquaculture is another food-based industry that has potential for expansion within Plymouth. While the seafood-based industry has shifted somewhat from Plymouth Bay, the relatively recent introduction of new aquaculture activity is proving successful. At a base level, continued support and expansion of the aquaculture farming trade should expand the direct and indirect economic benefits to the Town. As this sector grows, new opportunities should be explored, including value-add production (i.e. canning and processing of the yield), tourism (i.e. unique hands-on tourist experiences), and research (i.e. university-related industry research). Each of these indirect industries bring with it further opportunities while strengthening the core aquaculture market.

Plymouth also has the potential to expand its cottage food production businesses. These are companies typically that operate at a local or regional level, oftentimes with production levels that stay below federal thresholds to trigger full FDA compliance measures. Given the strong tourism and historic visitation to Plymouth and the surrounding area, providing 'locally made' products not available elsewhere likely will have an appeal. Whether it is cranberry-based products, seafood products, or products that were more common during colonial times, the Plymouth market likely can support the cottage food production industry.

Recommended Actions –

- **Primary:** Create a food production industry roundtable to develop better relations with existing sector businesses, identify market/regulatory challenges/opportunities, and enhance networking between local business leaders. Meet with the round table 2-4 times a year, as deemed valuable by the participants.
- **Primary:** Continue to support the expansion of the aquaculture industry in Plymouth Bay, opening additional sites for farming and expanding the product base of the aquaculture industry.
- **Secondary:** Build an entrepreneurial program in partnership with one of the local post-secondary institutions to develop food-production based entrepreneurs in Plymouth. Cater the program to developing both the product line as well as the business plan.
- **Long-Term:** Assess the market and financial feasibility of a shared commercial kitchen facility, providing space for cottage food producers to expand productivity while meeting all local and federal food preparation requirements as their respective production increases.

Primary and Specialty Healthcare

As mentioned, Plymouth—and Plymouth County—is a hub for healthcare within the South Shore market. Having a strong regional hospital affords the Town with greater healthcare provision than many similar sized communities regionally and nationally. From an economic development perspective, the Town has an opportunity to capitalize on this asset and explore ways to attract additional specialty care to the community. The Foundation should collaborate with Beth Israel Deaconess to determine ways the community can assist the hospital in maintaining its existing operations while enhancing the hospitals efforts to increase core and specialty care opportunities.

From a demographic perspective, the Town has a large, growing senior population that will require continued healthcare support. This population will require primary healthcare assistance as well as specialty needs and indirect social and health assistance. Most notably, home health care demand is becoming more popular as seniors increasingly prefer to age-in-place. More strategically, creating housing communities such as continuum of care retirement communities (CCRC) can provide preferable alternatives to home health care while providing seniors an option to remain in the community while turning over traditional family housing units for the next generation of workforce within Plymouth.

Recommended Actions –

- **Primary:** Build a healthcare roundtable featuring Beth Israel Deaconess to identify growth opportunities, collaborate on healthcare-related retention and recruitment strategies, and identify market-based needs/challenges for the Town and Foundation to engage in solutions.
- **Long-Term:** Include space that is targeted towards this cluster of businesses and organizations in redevelopment and infill projects. Potential locations where these businesses might be best served include the redevelopment concept for The Grove, Downtown, and the commerce park concept for Exit 3 (near the Pinehills development).

Tourism and Support Services

Plymouth's position as "America's Home Town" is part of the collective psyche of this country. It is sufficient to say that the Town has a wealth of regionally, nationally, and internationally renowned tourism destinations. However, anecdotal and observational data provided to RKG Associates indicate that tourism numbers have not increased substantially in the recent past. One observation presented to RKG Associates recognizes that Plymouth's tourism destinations generally are passive or observational in nature, and not necessarily active or experiential.

Most tourism analyses recognize that ‘length of stay’ is a critical measure when determining the economic and financial benefit of a tourism marketplace. Simply put, the longer someone stays in an area for vacation, the more they will spend in that community. To this point, this report recommends the Foundation and the Town strengthen and expand opportunities rather than oversee and manage them. The opportunity to expand the level of active tourism venues while integrating them with the existing destinations should be a priority. Creating this greater, complimentary diversity of activity should boost length of stay. This greater diversity also should assist Plymouth in capturing the substantial ‘thru-traffic’ headed to Barnstable County and Cape Cod.

One specific recommendation is to create a more consistent ferry service between Downtown Plymouth and Provincetown for short-term and weekend visitors to the Cape. RKG recommends the Foundation explore the potential to create a permanent ferry service integrated with a more convenient fee for parking system to accommodate the visitor’s need to store their vehicle. This concept would increase usership of the Town’s waterfront area while providing a captive audience to market additional opportunities within Plymouth.

Recommended Actions –

- **Primary:** Complete an updated Downtown master plan and include a live-work-play component that incorporates this cluster with a focus of connecting the waterfront assets and amenities with the Downtown activity along Court Street. In general, encourage venues that combine personal entertainment with other dining and evening activities to create a larger cluster of adult-based entertainment activity.
- **Primary:** Encourage greater collaboration among the Town’s rich entertainment, historic, and seasonal venues. Identify areas where cross-marketing, strategic partnerships, and shared expense opportunities can strengthen the regional marketplace.
- **Secondary:** Expand the Town’s family-based, active outdoor recreation opportunities to extend length-of-stay within Plymouth, focusing on complimenting the historic destinations within the Town. Better activating assets such as Miles Standish Park should be a priority.

Table 6-6
Priority Industry Targets by Industry Cluster
Plymouth, MA

PROFESSIONAL SERVICES AND CORPORATE OPERATIONS

Primary Targets

- Professional, Scientific, and Technical Services
- Management of Companies and Enterprises
- Insurance Carriers and Related Activities
- Educational Services (Non-government)

Support Services

- Internet Service Providers, Web Search Portals, and Data Processing Services
- Other Information Services
- Administrative and Support Services
- Housing Development

TECHNOLOGY BASED PRODUCTION

Primary Targets

- Electrical Equipment, Appliance, and Component Products
- Computer and Electronic Products
- Fabricated Metal Products
- Chemical Products
- Transportation Equipment Products

Supply Chain

- Merchant Wholesalers, Durable Goods
- Wholesale Electronic Markets and Agents and Brokers
- Air Transportation
- Truck Transportation
- Transit and Ground Passenger Transportation
- Support Activities for Transportation

Support Services

- Telecommunications
- Internet Service Providers, Web Search Portals, and Data Processing Services
- Other Information Services

FOOD PRODUCTION AND PROCESSING

Primary Targets

- Fruit and Vegetable Products and Value Add Processing
- Aquaculture and Seafood Products and Value Add Processing
- Miscellaneous Baking Products
- Other Food Products

Supply Chain

- Merchant Wholesalers, Durable Goods
- Wholesale Electronic Markets and Agents and Brokers
- Truck Transportation
- Transit and Ground Passenger Transportation
- Support Activities for Transportation

Support Services

- Telecommunications
- Internet Service Providers, Web Search Portals, and Data Processing Services
- Other Information Services

Priority Industry Targets by Industry Cluster (Continued)

Plymouth, MA

PRIMARY AND SPECIALTY HEALTHCARE

Primary Targets

- Ambulatory Health Care Services
- Hospitals and Specialty Care Services
- Nursing and Residential Care Facilities
- Home Health Care Services

Support Services

- Age Restricted Housing
 - Personal and Laundry Services
-

TOURISM AND SUPPORT SERVICES

Primary Targets

- Performing Arts Services
- Museums, Historical Sites, and Similar Institutions
- Outdoor Active Recreation Amenities
- Other Amusement and Recreation Industries
- Indoor Theme Park and Accommodations

Supply Chain

- Accommodations
- Livery and Concierge Services

Support Services

- Dining Facilities
 - Drinking Establishments
-

Source: RKG Associates, 2018

7 FISCAL IMPACT ANALYSIS

Like the work completed in 2001-2002, RKG Associates created a fiscal impact model to understand the relationship between land use decisions and the change in revenues and expenditures for the Town. The fiscal impact model provides two primary objectives: [1] to provide the Town with an understanding of how various land uses influence local revenue streams and expenses; and [2] to assess the potential fiscal impact of the concept development created for the Entergy property (the results of this assessment are presented in Chapter 5). To these points, the following narrative details the results of the analysis, and how land use influences the Town fiscal sustainability.

The fiscal impact model operates on three primary assumptions: [1] the model measures incremental impacts to the Town; [2] the model calculates local inflow-outflow balance; and [3] the model includes substantial revenues and expenditures.

- Incremental Impacts – Standard fiscal impact modeling recognizes that there are certain fixed costs a community must pay regardless of development activity. For example, the Town of Plymouth will only need one town manager regardless of development activity. These fixed costs do not change with new development. This analysis identifies fixed costs from incremental costs for the purposes of understanding the actual impact of development by land use.
- Local Inflow-Outflow Activity – This analysis focuses exclusively on direct revenues and expenses incurred by the Town of Plymouth. Outside revenues (i.e. the Commonwealth’s portion of sales tax) and expenditures (i.e. Commonwealth per pupil spending) are not considered. This isolates the true fiscal impact on Plymouth.
- Substantial Budget Line Items – The analysis focuses on the primary revenue and expenditure categories from the Town’s budget. The budget numbers used to run the model may differ from actual numbers since revenues and expenditures not related to land use were excluded. These include items such as intergovernmental transfers discussed in the previous bullet.

The data contained in this analysis came from several sources, including the Plymouth Annual Town and School budgets, bond prospectus, audited financial statements, interviews with various Town staff.

A. REVENUE AND EXPENDITURE ALLOCATION

The manner that revenues and expenditures are tabulated and tracked make it impossible to determine the exact allocation of income and expenditures by land use type (the closest one can get is real property tax revenue). That said, the model can only work if income and expense line items can be allocated between uses. RKG’s 35+ years of experience in performing fiscal impact analyses has revealed that allocation based on value is an accurate proxy for distributing income and expenses. The Town’s 2017 land digest shows that residential uses have a cumulative assessed value of \$7,206,364,490. This figure represents approximately 77.0% of the taxable digest. Nonresidential land uses constitute \$1,375,810,539, or 14.7%. The remaining 8.3% includes vacant land and ‘other’ uses. For the purposes of this analysis, the model only

considers residential and nonresidential uses. To this point, the default allocation of revenue and expenditures are 84.0% for residential and 16.0% for commercial.

However, not all revenue and expenditure categories are generated by both residential and nonresidential uses. For example, the Community Resources expenditure line item almost exclusively is generated by the residential properties in the Town. RKG accounted for these unique situations as necessary in the model. Table 7-1 details the allocation assumptions.

Table 7-1
Revenue and Expenditure Allocation by Land Use

| Category | Residential | Nonresidential |
|-------------------------------------|--------------------|-----------------------|
| Revenues | | |
| Real Estate and Personal Property | 84.0% | 16.0% |
| Tax Liens | 100.0% | 0.0% |
| Motor Vehicle Excise | 67.9% | 32.1% |
| Community Preservation | 100.0% | 0.0% |
| Penalties and Interest | 100.0% | 0.0% |
| PILOT | 0.0% | 100.0% |
| Restricted Grants and Contributions | 100.0% | 0.0% |
| Investment Income | 84.0% | 16.0% |
| Other Revenues | 84.0% | 16.0% |
| Charges for Service | 0.0% | 0.0% |
| Operating Grants and Contributions | 0.0% | 0.0% |
| Capital Grants and Contributions | 0.0% | 0.0% |
| Expenditures | | |
| General Fund | | |
| Administrative Services | 84.0% | 16.0% |
| Finance Department | 83.6% | 16.4% |
| Community Resources | 98.0% | 2.0% |
| Inspectional Services | 0.0% | 100.0% |
| Planning & Development | 83.6% | 16.4% |
| Public Safety | 67.6% | 32.4% |
| Marine & Environmental Services | 50.0% | 50.0% |
| Public Works | 83.6% | 16.4% |
| Schools | 100.0% | 0.0% |
| Fixed Costs | 83.6% | 16.4% |
| Community Debt | 100.0% | 0.0% |
| Enterprise Funds | 83.6% | 16.4% |
| Indirect Costs | 83.6% | 16.4% |

Source: RKG Associates, 2018

B. REVENUES

The revenue analysis focused on the sources identified in the Town's Annual Budget. The following narrative details the categories used in the analysis and describes the assumptions used to generate calculations for the incremental allocation by land use. It is important to note that the residential revenue allocation was separated between traditional residential development and empty nester development. As noted in the 2001-2002 analysis, the fiscal impacts (both revenue and expenditure) vary substantially

between traditional housing development and empty nester development. The model captures this differentiation for both revenues and expenditures

Table 7-2 shows the adjusted incremental revenues, and how those revenue categories are allocated between residential and nonresidential uses. The residential revenues were further divided between traditional housing units and empty nester housing units (as identified in the Town’s assessment data). The final three categories are not allocated to specific land use, as they are not derived from local sources.

Table 7-2
Revenue Allocation by Land Use

| Category | Adjusted Incremental Revenues | Allocated Incremental Revenues | | |
|-------------------------------------|-------------------------------|--------------------------------|--------------------------|----------------|
| | | Traditional Residential | Empty Nester Residential | Nonresidential |
| Real Estate and Personal Property | \$154,922,332 | \$126,010,559 | \$4,076,137 | \$24,835,636 |
| Tax Liens | \$795,987 | \$795,987 | \$0 | \$0 |
| Motor Vehicle Excise | \$8,843,191 | \$5,786,507 | \$221,375 | \$2,835,308 |
| Community Preservation | \$2,264,741 | \$2,264,209 | \$532 | \$0 |
| Penalties and Interest | \$909,458 | \$907,846 | \$1,612 | \$0 |
| PILOT | \$74,724 | \$0 | \$0 | \$74,724 |
| Restricted Grants and Contributions | \$6,590,389 | \$6,590,280 | \$109 | \$0 |
| Investment Income | \$396,302 | \$332,771 | \$0 | \$63,531 |
| Other Revneues | \$35,872 | \$30,118 | \$4 | \$5,751 |
| Charges for Service | \$15,256,049 | \$0 | \$0 | \$0 |
| Operating Grants and Contributions | \$51,013,146 | \$0 | \$0 | \$0 |
| Capital Grants and Contributions | \$15,391,211 | \$0 | \$0 | \$0 |

Source: RKG Associates, 2018

Table 7-3 shows the per capita (for residential) and per \$1,000 of assessed value (for nonresidential) breakdown. This further breakdown is necessary, as various residential uses have differing per capita household averages and new construction nonresidential development varies greatly depending on use type.

Table 7-3
Revenue Allocation Per Capita (Residential) and Per \$1,000 in Value (Nonresidential)

| Category | Per Unit Revenues | | |
|-------------------------------------|-------------------------|--------------------------|--------------------------|
| | Traditional Residential | Empty Nester Residential | Nonresidential |
| <i>Unit of Measure</i> | <i>Per Capita</i> | <i>Per Capita</i> | <i>Per \$1,000 Value</i> |
| Real Estate and Personal Property | \$2,145.34 | \$2,145.34 | \$18.05 |
| Tax Liens | \$14.10 | \$13.67 | \$0.00 |
| Motor Vehicle Excise | \$102.52 | \$103.19 | \$2.06 |
| Community Preservation | \$40.11 | \$38.90 | \$0.00 |
| Penalties and Interest | \$16.08 | \$15.62 | \$0.00 |
| PILOT | \$0.00 | \$0.00 | \$0.05 |
| Restricted Grants and Contributions | \$116.76 | \$7.00 | \$0.00 |
| Investment Income | \$5.90 | \$5.72 | \$0.05 |
| Other Revneues | \$0.53 | \$0.52 | \$0.00 |
| Charges for Service | \$0.00 | \$0.00 | \$0.00 |
| Operating Grants and Contributions | \$0.00 | \$0.00 | \$0.00 |
| Capital Grants and Contributions | \$0.00 | \$5.00 | \$0.00 |

Source: RKG Associates, 2018

C. EXPENDITURES

The expenditure analysis includes both Town budget items as well as locally-derived school budget items. The analysis to determine the local incremental allocation is similar to the revenue analysis. The most substantial difference is the school expenditure calculations.

Table 7-4 shows the adjusted incremental expenditures, and how those expenditure categories are allocated between residential and nonresidential uses. The residential revenues were further divided between traditional housing units and empty nester housing units (as identified in the Town’s assessment data). The final three categories are not allocated to specific land use, as they are not derived from local sources.

Table 7-4
Expenditure Allocation by Land Use

| Category | Adjusted Incremental Expenses | Allocated Incremental Expenses | | |
|---------------------------------|-------------------------------|--------------------------------|--------------------------|----------------|
| | | Traditional Residential | Empty Nester Residential | Nonresidential |
| General Fund | | | | |
| Administrative Services | \$2,183,954 | \$1,776,382 | \$57,462 | \$350,110 |
| Finance Department | \$2,658,243 | \$2,152,986 | \$69,644 | \$435,614 |
| Community Resources | \$3,470,821 | \$3,294,825 | \$106,580 | \$69,416 |
| Inspectional Services | \$946,070 | \$0 | \$0 | \$946,070 |
| Planning & Development | \$839,987 | \$680,329 | \$22,007 | \$137,651 |
| Public Safety | \$21,556,109 | \$14,003,233 | \$564,753 | \$6,988,123 |
| Marine & Environmental Services | \$1,014,750 | \$491,477 | \$15,898 | \$507,375 |
| Public Works | \$6,107,457 | \$5,066,609 | \$40,003 | \$1,000,846 |
| Schools [1] | \$0 | \$0 | \$0 | \$0 |
| Fixed Costs | \$54,882,825 | \$44,451,140 | \$1,437,887 | \$8,993,798 |
| Community Debt | \$13,759,731 | \$13,328,584 | \$431,147 | \$0 |
| Enterprise Funds | \$12,822,919 | \$10,721,592 | \$0 | \$2,101,327 |
| Indirect Costs | \$2,076,093 | \$1,681,486 | \$54,392 | \$340,215 |

Source: RKG Associates, 2018

[1] Calculated separately to account for student aged generation rates.

Table 7-5 details the per student local incremental expenditure for the Town. The analysis isolated non-local spending, adjusted the total costs based on fixed costs, and then calculated the net difference as a per capita expenditure. This value is then applied to each residential land use type based on student generation rates collected from Census and property assessment data.

Table 7-5
2017 Local Student Expenditures Per Capita

| Category | Total Expenditures | Incremental | Incremental |
|----------------------------|--------------------|-------------------------------|----------------|
| | | Ratio | Expenditures |
| Certified Salaries | \$57,484,702 | 100.0% | \$57,484,702 |
| Clerical Salaries | \$2,530,474 | 25.0% | \$632,619 |
| Other Salaries | \$10,427,558 | 20.0% | \$2,085,512 |
| Contracted Services | \$16,253,256 | 75.0% | \$12,189,942 |
| Supplie and Materials | \$2,722,830 | 100.0% | \$2,722,830 |
| Other Expenses | \$839,098 | 25.0% | \$209,775 |
| Total Local Appropriations | \$90,257,918 | | \$75,325,379 |
| | | Total Enrollment | \$7,687 |
| | | Per Capita Expenditure | \$9,799 |

Source: RKG Associates, 2018

Table 7-6 shows the per capita (for residential) and per \$1,000 of assessed value (for nonresidential) breakdown of expenditures (less the school expenses).

Table 7-6
Expenditure Allocation Per Capita (Residential) and Per \$1,000 in Value (Nonresidential)

| Category | Per Unit Expenditures | | |
|---------------------------------|-------------------------|--------------------------|-------------------|
| | Traditional Residential | Empty Nester Residential | Nonresidential |
| Unit of Measure | Per Capita | Per Capita | Per \$1,000 Value |
| General Fund | | | |
| Administrative Services | \$30.24 | \$30.24 | \$0.25 |
| Finance Department | \$36.65 | \$36.65 | \$0.32 |
| Community Resources | \$56.09 | \$56.09 | \$0.05 |
| Inspectional Services | \$0.00 | \$0.00 | \$0.69 |
| Planning & Development | \$11.58 | \$11.58 | \$0.10 |
| Public Safety | \$238.41 | \$297.24 | \$5.08 |
| Marine & Environmental Services | \$8.37 | \$8.37 | \$0.37 |
| Public Works | \$86.26 | \$21.05 | \$0.73 |
| Schools [1] | \$0.00 | \$0.00 | \$0.00 |
| Fixed Costs | \$756.78 | \$756.78 | \$6.54 |
| Community Debt | \$226.92 | \$226.92 | \$0.00 |
| Enterprise Funds | \$182.54 | \$0.00 | \$1.53 |
| Indirect Costs | \$28.63 | \$28.63 | \$0.25 |

Source: RKG Associates, 2018

[1] Calculated separatetely to account for student aged generation rates.

D. COMPARISON

RKG Associates performed the fiscal impacts comparison in two approaches, standard residential development and luxury residential development. This was done to accommodate the value and socioeconomic impact variations between areas of the Town where unique development practices created substantially different results. Most notably, the development in the Pine Hills subarea (which includes the Pinehills and Make Peace developments) perform different than the rest of Plymouth (which has similar housing value and socioeconomic conditions). Tables 7-7 and 7-8 (at the end of this section) reveal the housing valuation and student generation differences for luxury and standard developments. It is important to note that nonresidential development did not have substantial differentiation between the various areas of the Town.

For each assessment RKG Associates used recent construction values to proxy new residential and nonresidential development. The student generation rates were calculated based on current student levels and the historic generation differences between various land uses (recent data similar to the 2001-2002 study was not available to RKG).

As noted in the following tables, standard construction residential development—except for empty nester households—does not generate sufficient incremental revenues for the Town to accommodate the incremental expenses created. Student costs are the greatest determinant of the imbalance, as school expenditures accounted for 20% to 45% of all new incremental costs (from \$980 per household for multifamily ownership development to \$4,194 per single family unit). In contrast the empty nester category had almost no student costs due to the nature of the households.

For nonresidential development each land use type yields a net positive fiscal impact for the Town, as revenues exceed the cost of services consumed for businesses. The net fiscal impact benefits range from \$888 per 1,000 square feet of industrial space to \$1,382 per 1,000 square feet of retail space. This is consistent with regional and national trends, as new businesses do not directly create demand for high-cost amenities such as student education.

Analyzing the luxury residential market yields a different result (except for multifamily rentals), as luxury housing units pay substantially higher real property taxes and have generated substantially fewer public school children for Plymouth. The net benefits range from \$3,652 for multifamily owner units to more than \$13,000 for the larger single-family homes. Luxury multifamily rental units are a near break-even level. Anecdotal data and RKGs experience assessing similar products in other Massachusetts communities indicates this finding is due, in part, to Plymouth's comparatively higher ratio of 2-bedroom and larger units. Local real estate professionals indicate the dearth of good housing choice for workforce and middle-income households have made would-be owner households rent until a suitable ownership unit becomes available.

RKG performed a 'breakeven' analysis for residential development determining the housing values necessary for incremental revenues to equal new incremental expenses. Not surprisingly, the breakeven residential values fall between standard new development values and luxury development values (Table 7-9). It is important to note that the multifamily rental analysis is slightly deceiving, as there has been very little new construction multifamily rental development. To this point, the student generation rates reflect all multifamily rental generation rates, which are substantially higher than what has been experienced locally and regionally. This is evidenced in the luxury analysis, where student generation is lower than for standard development. As noted earlier, the type of new multifamily rental housing developed will have the greatest impact on student generation. Larger units tend to attract households with children more frequently than efficiency and 1-bedroom units.

Table 7-7
Revenue/Expenditure Comparison on
Standard Development Levels

| | Residential Calculation Approach | Nonresidential Calculation Approach | Single Family High Density | | Single Family Rural | | Empty Nesters | | Multifamily Owners | | Multifamily Renters | | Retail/Service | | Industrial | |
|-------------------------------------|----------------------------------|-------------------------------------|----------------------------|----------------|---------------------|----------------|----------------|------------------|--------------------|----------------|---------------------|--------------|----------------|----------------|--------------|--------------|
| | | | High Density | Low Density | High Density | Low Density | High Density | Low Density | High Density | Low Density | High Density | Low Density | High Density | Low Density | High Density | Low Density |
| Real Estate and Personal Property | Per Unit | Per 1,000 SF | \$6,869 | \$8,229 | \$8,229 | \$5,959 | \$3,315 | \$2,354 | \$1,557 | \$1,532 | \$999 | \$999 | \$1,557 | \$1,532 | \$999 | \$999 |
| Tax Liens | Per Capita | N/A | \$47 | \$47 | \$47 | \$24 | \$28 | \$35 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Motor Vehicle Excise | Per Capita | Per 1,000 SF | \$341 | \$341 | \$341 | \$181 | \$205 | \$256 | \$194 | \$190 | \$124 | \$124 | \$194 | \$190 | \$124 | \$124 |
| Community Preservation | Per Capita | N/A | \$134 | \$134 | \$134 | \$68 | \$80 | \$100 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Penalties and Interest | Per Capita | N/A | \$54 | \$54 | \$54 | \$27 | \$32 | \$40 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| PILOT | N/A | Per 1,000 SF | \$0 | \$0 | \$0 | \$0 | \$5 | \$3 | \$5 | \$5 | \$3 | \$3 | \$5 | \$5 | \$3 | \$3 |
| Restricted Grants and Contributions | Per Capita | N/A | \$389 | \$389 | \$389 | \$12 | \$234 | \$292 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Investment Income | Per Capita | Per 1,000 SF | \$20 | \$20 | \$20 | \$10 | \$12 | \$15 | \$4 | \$4 | \$3 | \$3 | \$4 | \$4 | \$3 | \$3 |
| Other Revenues | Per Capita | Per 1,000 SF | \$2 | \$2 | \$2 | \$1 | \$1 | \$1 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Charges for Service | Per Capita | Per 1,000 SF | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Operating Grants and Contributions | N/A | N/A | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Capital Grants and Contributions | N/A | N/A | \$0 | \$0 | \$0 | \$9 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Revenues | | | \$7,855 | \$9,214 | \$9,214 | \$6,291 | \$3,907 | \$3,094 | \$1,760 | \$1,732 | \$1,129 | \$1,129 | \$1,760 | \$1,732 | \$1,129 | \$1,129 |
| EXPENDITURES | | | | | | | | | | | | | | | | |
| General Fund | | | | | | | | | | | | | | | | |
| Administrative Services | Per Capita | Per 1,000 SF | \$101 | \$101 | \$101 | \$53 | \$60 | \$76 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 |
| Finance Department | Per Capita | Per 1,000 SF | \$122 | \$122 | \$122 | \$64 | \$73 | \$92 | \$3 | \$3 | \$3 | \$3 | \$3 | \$3 | \$3 | \$3 |
| Community Resources | Per Capita | Per 1,000 SF | \$187 | \$187 | \$187 | \$98 | \$112 | \$140 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 |
| Inspectional Services | N/A | Per 1,000 SF | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Planning & Development | Per Capita | Per 1,000 SF | \$39 | \$39 | \$39 | \$20 | \$23 | \$29 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 |
| Public Safety | Per Capita | Per 1,000 SF | \$794 | \$794 | \$794 | \$520 | \$477 | \$596 | \$238 | \$235 | \$153 | \$153 | \$238 | \$235 | \$153 | \$153 |
| Maine & Environmental Services | Per Capita | Per 1,000 SF | \$28 | \$28 | \$28 | \$15 | \$17 | \$21 | \$7 | \$7 | \$4 | \$4 | \$7 | \$7 | \$4 | \$4 |
| Public Works | Per Capita | Per 1,000 SF | \$287 | \$287 | \$287 | \$37 | \$173 | \$216 | \$14 | \$13 | \$9 | \$9 | \$14 | \$13 | \$9 | \$9 |
| Schools (Local Only) | Per Pupil | N/A | \$4,194 | \$4,194 | \$4,194 | \$49 | \$980 | \$3,430 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Fixed Costs | Per Capita | Per 1,000 SF | \$2,520 | \$2,520 | \$2,520 | \$1,324 | \$1,514 | \$1,892 | \$61 | \$60 | \$39 | \$39 | \$61 | \$60 | \$39 | \$39 |
| Community Debt | Per Capita | N/A | \$756 | \$756 | \$756 | \$397 | \$454 | \$567 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Enterprise Funds | Per Capita | Per 1,000 SF | \$608 | \$608 | \$608 | \$0 | \$365 | \$456 | \$29 | \$28 | \$18 | \$18 | \$29 | \$28 | \$18 | \$18 |
| Indirect Costs | Per Capita | Per 1,000 SF | \$95 | \$95 | \$95 | \$50 | \$57 | \$72 | \$5 | \$5 | \$3 | \$3 | \$5 | \$5 | \$3 | \$3 |
| Total Expenditures | | | \$9,730 | \$9,730 | \$9,730 | \$2,628 | \$4,305 | \$7,586 | \$376 | \$370 | \$241 | \$241 | \$376 | \$370 | \$241 | \$241 |
| NET INCOME/(EXPENSE) | | | (\$1,875) | (\$516) | (\$516) | \$3,663 | (\$398) | (\$4,492) | \$1,384 | \$1,362 | \$888 | \$888 | \$1,384 | \$1,362 | \$888 | \$888 |

Source: RKG Associates, 2018

Table 7-8
Revenue/Expenditure Comparison on
Luxury Development Levels

| | Residential Calculation Approach | Nonresidential Calculation Approach | Single Family High Density | | Single Family Rural | | Empty Nesters | | Multifamily Owners | | Multifamily Renters | |
|-------------------------------------|----------------------------------|-------------------------------------|-----------------------------|--------|---------------------|--------|----------------|--------|--------------------|--------|---------------------|--------|
| | | | \$/sq ft | Per HH | \$/sq ft | Per HH | \$/sq ft | Per HH | \$/sq ft | Per HH | \$/sq ft | Per HH |
| REVENUES | | | | | | | | | | | | |
| Real Estate and Personal Property | Per Unit | Per 1,000 SF | \$9,616 | | \$18,265 | | \$11,563 | | \$6,630 | | \$3,312 | |
| Tax Liens | Per Capita | N/A | \$47 | | \$47 | | \$24 | | \$28 | | \$35 | |
| Motor Vehicle Excise | Per Capita | Per 1,000 SF | \$341 | | \$341 | | \$181 | | \$205 | | \$256 | |
| Community Preservation | Per Capita | N/A | \$134 | | \$134 | | \$68 | | \$80 | | \$100 | |
| Penalties and Interest | Per Capita | N/A | \$54 | | \$54 | | \$27 | | \$32 | | \$40 | |
| PILOT | N/A | Per 1,000 SF | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Restricted Grants and Contributions | Per Capita | N/A | \$389 | | \$389 | | \$12 | | \$234 | | \$292 | |
| Investment Income | Per Capita | Per 1,000 SF | \$20 | | \$20 | | \$10 | | \$12 | | \$15 | |
| Other Revenues | Per Capita | Per 1,000 SF | \$2 | | \$2 | | \$1 | | \$1 | | \$1 | |
| Charges for Service | Per Capita | Per 1,000 SF | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Operating Grants and Contributions | Per Capita | N/A | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Capital Grants and Contributions | Per Capita | N/A | \$0 | | \$0 | | \$9 | | \$0 | | \$0 | |
| Total Revenues | | | \$10,602 | | \$19,250 | | \$11,895 | | \$7,222 | | \$4,052 | |
| EXPENDITURES | | | | | | | | | | | | |
| General Fund | | | | | | | | | | | | |
| Administrative Services | Per Capita | Per 1,000 SF | \$101 | | \$101 | | \$53 | | \$60 | | \$76 | |
| Finance Department | Per Capita | Per 1,000 SF | \$122 | | \$122 | | \$64 | | \$73 | | \$92 | |
| Community Resources | Per Capita | Per 1,000 SF | \$187 | | \$187 | | \$98 | | \$112 | | \$140 | |
| Inspectional Services | N/A | Per 1,000 SF | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Planning & Development | Per Capita | Per 1,000 SF | \$39 | | \$39 | | \$20 | | \$23 | | \$29 | |
| Public Safety | Per Capita | Per 1,000 SF | \$794 | | \$794 | | \$520 | | \$477 | | \$596 | |
| Marine & Environmental Services | Per Capita | Per 1,000 SF | \$28 | | \$28 | | \$15 | | \$17 | | \$21 | |
| Public Works | Per Capita | Per 1,000 SF | \$287 | | \$287 | | \$37 | | \$173 | | \$216 | |
| Schools | Per Pupil | N/A | \$419 | | \$419 | | \$49 | | \$245 | | \$343 | |
| Fixed Costs | Per Capita | Per 1,000 SF | \$2,520 | | \$2,520 | | \$1,324 | | \$1,514 | | \$1,892 | |
| Community Debt | Per Capita | N/A | \$756 | | \$756 | | \$397 | | \$454 | | \$567 | |
| Enterprise Funds | Per Capita | Per 1,000 SF | \$608 | | \$608 | | \$0 | | \$365 | | \$456 | |
| Indirect Costs | Per Capita | Per 1,000 SF | \$95 | | \$95 | | \$50 | | \$57 | | \$72 | |
| Total Expenditures | | | \$5,955 | | \$5,955 | | \$2,628 | | \$3,570 | | \$4,499 | |
| | | | \$4,646 | | \$13,295 | | \$9,267 | | \$3,652 | | (\$447) | |
| | | | NET INCOME/(EXPENSE) | | | | | | | | | |

Source: RKG Associates, 2018

Table 7-9
Estimated 'Break Even' Housing Values

| Category | Estimated Incremental Expenditures | Average Non-Tax Incremental Revenue | Required 'Break Even' Tax Revenue | Required "Break Even" Housing Value | Recent Average Development Values | Net Difference |
|----------------------------|------------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|----------------|
| Single Family High Density | \$9,730 | \$986 | \$8,744 | \$527,403 | \$414,323 | (\$113,079) |
| Single Family Rural | \$9,730 | \$986 | \$8,744 | \$527,403 | \$496,300 | (\$31,103) |
| Empty Nesters | \$2,628 | \$332 | \$2,296 | \$138,475 | \$359,391 | \$220,917 |
| Multifamily Owners | \$4,305 | \$592 | \$3,713 | \$223,935 | \$199,950 | (\$23,985) |
| Multifamily Renters | \$7,586 | \$740 | \$6,846 | \$412,897 | \$141,948 | (\$270,949) |

Source: RKG Associates, 2018

E. CONCLUSIONS

The decommissioning of the Pilgrim Nuclear Power Station will have substantial negative effects on Plymouth's fiscal stability. The loss of the annual \$9.5 million PILOT payment will have an immediate impact on the Town's budget. Indirectly, the loss of the power plant jobs and the indirect revenues/spending that occurred resulting from its operations will further affect municipal revenues as well as the market balance within the Town. These impacts are so great, RKG does not see any single strategy that will address these losses, particularly in the short-term.

As detailed in Chapter 5, the build out of the 1,500-acre Entergy property adjacent to the Pilgrim Plant would recover approximately 66% of the revenues and enhance the employment and indirect economic benefits that will be lost by the plant. However, realization of these benefits will be slow. At a base level, the Chapter 61 agreement on the 1,500 acres is in effect until 2022. No development can occur until it expires or the owner pays the back taxes for taking it out early. Second, Entergy may or may not support the hypothetical development concept, and may have different plans in mind for the site. Even if the proposed concept is built as described, it will take years to be absorbed by the marketplace. Furthermore, the concept (or any concept that plans development on the site) likely will have opposition from some portion of the Town's residents, making implementation even more uncertain and time consuming.

To put it succinctly, the Town likely will not be able to build its way out, cut its way out, or tax its way out of the impending impact from the plant closure. Ultimately, the results of this analysis indicate that Plymouth's long-term fiscal sustainability will require a combination of spending austerity, planned tax revenue increases, increased nonresidential development activity, and a balance of new residential development. The final point is critical to accelerate nonresidential development, given the lack of housing diversity currently available in Plymouth.

8 IMPLEMENTATION STRATEGY

A. INTRODUCTION

This chapter details the proposed economic development implementation strategy for the Town of Plymouth. Simply put, this chapter provides the “road map” of successive action steps that will assist the Town in embarking on a more comprehensive and proactive effort to enhance business retention, expansion and recruitment within context of preserving the community’s quality of life. The action items detailed below are a product of a collaborative effort among the key stakeholders that will be charged with promoting and implementing the plan. Each strategy is founded in the analysis presented throughout this report and vetted by Town staff, businesses leaders, community stakeholders, and elected officials. It is through this effort that RKG Associates presents these opportunities for the community’s consideration.

Above all else, RKG Associates recognizes that the success or failure of these efforts likely will be determined by the community’s commitment and resolve to implementation. Elected leaders, Town staff, and community business and residential citizens must be committed to the long-term nature of effective economic development practices, and willing to address and resolve difficult—and likely controversial—issues related to land use and development. Ultimately, the implementation entity must have support and buy-in from the administration, the development community, the business community, and the residents of Plymouth to achieve the goals and objectives presented in this chapter. With support from these stakeholders, this strategic plan will serve as the guide for the Town, the Foundation, and their respective implementation partners.

The intent of the strategic economic development planning process is three-fold. First, the process intends to confirm the Plymouth community’s interest in economic development. Second, it provides a series of recommendations for the Town leadership and Foundation to consider. Finally, it recommends roles and responsibilities for each public and private implementation partner.

The analysis has revealed Plymouth has many of the pieces in place to effectively carry out the following recommendations. Most notably, the Foundation’s structure as a private non-profit 501(c)(3) entity that partners the Town government with the business community enables easy adoption and implementation for several of the recommendations. Additionally, many of the key relationships already exist to expand economic development effort through better coordination. Enhancing and focusing those partnership opportunities will be easier given the existing familiarity. Finally, The Town and the Foundation already are undertaking many of the recommendations in some form. Oftentimes, the following recommendations simply are an expansion of existing efforts or a refinement of effort to focus the organization. RKG built the recommendation concepts upon these assets.

The following narrative compiles these concepts, as well as other strategic action opportunities, and details the specific implementation action items recommended for Plymouth.

B. ECONOMIC DEVELOPMENT GOALS

Before any community can implement a strategic action plan, that community must first agree upon the desired results those actions should have. As part of this planning effort, the RKG Associates led an extensive interview campaign to Plymouth's elected leaders, business leaders, residents, implementation partners, and community advocates. This process was followed to establish a consensus among the implementation partners on the economic development vision of the community, the actions necessary to accomplish the vision, and the role each needs to play. The following section highlights the economic development goals that participants identified for the Foundation and the Town to pursue into the near future. It should be noted that these goals are comprehensive and broad in scope. Each are viewed as equally important for the community and are not presented in any order.

- Enhance Plymouth's tourism and destination visitorship through strategic marketing investments, new asset development, and enhancing existing partnerships.
- Become more proactive in business retention and expansion efforts through greater coordination and outreach to existing businesses.
- Implement a proactive business recruitment and retention effort that places Plymouth directly in contact with its target industries and specific business interests.
- Provide sufficient public and private resources for the economic development effort to ensure each of the goals listed here can be addressed thoroughly and effectively.
- Promote continued fiscal growth for the Town by attracting investment that creates a net positive economic impact.
- Become more proactive in marketing and outreach efforts locally, regionally, and nationally through investments in digital and print media as well as increased networking efforts.
- Improve the market and regulatory environment that maximizes the economic development potential of the Town's existing real estate assets.
- Identify, enable, and promote new real estate assets within the Town, expanding the community's economic development potential and capacity.
- Implement effective, realistic improvements to the economic development permitting processes to eliminate redundancies, improve consistency, reduce review times, and make outcome more predictable and fair.
- Preserve and enhance Plymouth's quality of life to make it more attractive and accessible to existing residents as well as those seeking to live in Plymouth.
- Allow the development of a greater diversity of housing to support a range of options for working-age households, golden years earners, and retirees at all income levels.

C. IMPLEMENTATION FRAMEWORK

RKG Associates integrated the findings from the various analyses, the feedback provided the Board of Selectmen, Foundation, and Town staff through this effort, and its observations of the economic development climate in Plymouth and the greater South Shore region to suggest the following

implementation concepts. The implementation framework has been categorized into five topic areas addressing the principal actions necessary to advance the identified goals. These topic areas are presented in no particular order. A separate section discussing opportunities for various physical areas of the Town follows this section.

1. Marketing and Outreach

RKG Associates analysis revealed there is a substantial opportunity to improve awareness of the Town's economic development efforts. This includes physical and digital collateral, greater information dissemination, and increasing awareness the Town's initiatives both within the Town as well as to outside entities.

At a base level, greater effort needs to be given to engaging and educating the Town's residents and business owners. The economic development planning process has revealed that local stakeholders have a varying degree of understanding what economic development is, how the Town is pursuing economic development opportunities, and why those actions are beneficial. Engaging the local community will increase awareness may help to improve buy-in, or at least address any specific concerns being discussed in the community.

Greater effort should be made to engage the existing business community, particularly those businesses that operate in the Town's proposed target industry clusters that include [1] primary and specialty healthcare, [2] technology-based manufacturing, [3] food production and processing, [4] professional services and company management, and [5] tourism and its support services.¹ Including business leaders in the planning and implementation of economic development efforts (whether retention, recruitment, or policy strategizing) will provide an 'in the trenches' perspective that will help shape the Town's and the Foundation's actions. Building upon existing relationships—and refining the strategic collaborations—with existing business organizations (i.e. the Chamber, Destination Plymouth...) that have similar interests/needs is an effective way to increase business participation while also increasing implementation capacity with little cost.

More strategically, the Foundation will need more comprehensive digital and print collateral to increase awareness of opportunities to potential businesses and investors from outside the Town. Creating a comprehensive physical and digital marketing collateral is a fundamental, but necessary, action to help any retention and recruitment efforts. Materials such as target industry fact sheets, quality of life/cost of living materials, an available incentive fact sheet, and advisory pamphlets that provide helpful information on the Town's various approval processes are examples of collateral needed. Furthermore, the exiting building and parcel finder database on the economic development website is dated and static. RKG recommends the Town explore a more interactive site finder tool for the website that geolocates the buildings and parcels, and enables brokers and property owners to submit available assets for marketing (although the latter will require greater staff investment to manage the database list). Both the Town of Stoughton and the Massachusetts Alliance for Economic Development use similar site finder systems that can be a guide for the Town. Revamping the Foundation's economic development website as the sole Plymouth economic development website to include more recent information as well as the collateral materials is imperative in today's online site selection arena.

Specific implementation concepts include:

- Make the Foundation's website the official Plymouth economic development website, relocating all content from the Town's official website. The unified website should be maintained by the Foundation and updated frequently

¹ Greater detail on the target industries is provided in Chapter 6.

- Populate the site with the newly created report and marketing collateral
- Enhance the site finder application to include geospatial functionality and user-submitted materials
- Incorporate a community education section with materials aimed at providing information about economic development for interested citizens
- Expand daily use of social media (i.e. Twitter, Facebook, Instagram...)
- Establish Email listserve of residents and businesses to blast monthly newsletter
- Create print and digital cut sheets for
 - Target Industry Highlights
 - Quality of Life/Cost of Living
 - Incentive Sheet
 - Technology Infrastructure
- Implement separate annual business and resident survey to gather needs/ideas/concerns about economic development
- Host annual town hall meeting to present “a year in review” for interested community members and businesses
- Attend precinct meetings annually to discuss economic development and current ongoing initiatives
- Create industry roundtables in each of the target industry clusters
- Cohost a semiannual workforce development forum with educators, businesses, and partners in partnership with the Chamber’s Higher Education Council

2. Business Recruitment

To date, business recruitment efforts primarily have been reactionary. The Foundation has been effective in working with companies that have expressed interest in Plymouth, and has success with some of its direct outreach efforts (i.e. Glynn Electric, CC Construction, etc.). However, the proactive recruitment efforts have been infrequent. The primary barrier to greater business recruitment efforts is staffing. Simply put, current demands on the economic development director position leaves little time for off-site visits and marketing trips. This strategic plan provides an update to the industry clusters with the greatest potential to locate in Plymouth. Dedicating more human and financial resources in proactive marketing and recruitment most likely will create greater exposure, and therefore success, for the Town.

Similarly, the market and industry analysis revealed Plymouth has a strong socioeconomic and real estate inventory to create an entrepreneurial development program. While further assessment is needed to determine the feasibility of options such as incubator/co-work space, there is a strong environment for small businesses to start and thrive in Plymouth. Developing micro-incentives (i.e. locally-funded job tax credits for companies that do not meet state/Federal thresholds) that target start-up businesses and home-based businesses could provide a competitive advantage for the Town.

Specific implementation concepts include:

- Expand interactions and networking with real estate professionals from greater region (i.e. annual bus tour)
- Target 1-2 trade association meetings to attend as exhibitor annually
- Identify specific businesses within the target industry clusters for direct marketing/site visits
- Host regional ‘industry showcases’ in partnership with other South Shore communities to attract interested businesses to the area
- Perform feasibility analysis to develop an incubator/co-work space in Plymouth
- Work with the Chamber to grow a locally managed mentorship program for entrepreneurs (i.e. SCORE model) to augment Workforce Board efforts in local priority industries (i.e. aquaculture)

- Pursue special legislation to enable Plymouth to provide local job tax credits for start-up production-based companies with less than 10 employees

3. Business Retention

The Foundation already recognizes the value of retaining and expanding existing businesses, and has been quick to react to business needs on isolated initiatives. However, like for business recruitment, the predominance of the Foundation's efforts have been reactionary. Becoming more interactive with business owners most likely will identify opportunities for the Foundation to assist existing companies with retention/growth/challenges. As mentioned, the largest obstacle to expanding the Foundation's efforts in this regard is staff capacity (and the resources to pay staff). Building expertise in the Foundation is critical to meet this fundamental economic development effort.

Specific implementation concepts include:

- Utilize the business survey as a 'first level' to identify companies seeking to close, expand, or leave Plymouth
 - Perform site visits to those companies
- Host bi-monthly business forums for different industry segments to discuss current/future needs
- Create and market a business 'hotline' for business owners to reach out to the Foundation
- Establish a monthly site visit quota to connect with local businesses
 - Target hitting all businesses within three years
- Fund a business ombudsman position to help businesses (new and existing) through Plymouth approval processes
- Create and distribute a business program offering book, detailing the services available from the Foundation/Town related to economic development

4. Organization and Coordination

The current partnership between the Town and the private sector representatives (the Foundation) is an excellent framework to expand the effectiveness and efficiency for economic development implementation. RKG Associates' experience indicates communities with good working relationships between the government and the business community have the greatest potential for success. Simply put, implementation requires financial and regulatory support from the public sector and investment/leadership from the private sector. Merging the expertise of the public and private sector creates better dialogue from which better solutions can be found. That said, there are opportunities to improve the working relationship.

Most notably, having the economic development director located outside of Town Hall is a mostly symbolic, but valuable, initiative to let existing and prospective businesses know economic development implementation is not a function of government, but a partnership to bring the leadership and expertise of the public sector and its business leaders together through a private non-profit entity.

While the public and private sector relationship is fundamental to an effective economic development effort, so are the relationships between the Foundation staff and other key Town of Plymouth (i.e. planning, public works, schools...) and external implementation stakeholders (i.e. Chamber of Commerce, Destination Plymouth, Old Colony Planning Council...). Holding regular coordination and networking events will help build the relationships to forge stronger collaborative efforts. In other words, strategic collaboration efforts will require consistent and substantive communication.

From an operational perspective, RKG recommends creating more clearly defined roles for all the implementation partners involved in the Foundation and economic development implementation. At a base level, the Foundation Board should provide policy and vision guidance for short-term and long-term

economic development action. The current Board make up consisting of public and private entities is appropriate for a joint-funded venture. These representatives should set the economic development goals, establish the vision and business plan for the Foundation, and provide advisory and implementation support as necessary. The Foundation staff should be charged with the day-to-day implementation of the plan and the action items therein. The (executive) director position should have similar administrative authority (and responsibility) as a town manager in a strong town manager form of government. Decisions such as staffing and approach to implementing specific tasks should be the purview of the executive director. Additional professional and administrative staff (already identified as a need) should report directly to the executive director. External partners (both public and private) should be provided the information necessary to [1] buy in to the partnership opportunity, [2] determine their capacity/interest in partnering, and [3] ensure their efforts are consistent with their respective roles and responsibilities in their positions.

Specific implementation concepts include:

- Establish a permanent location for the Foundation outside of Town Hall
- Target representatives from each of the target industry clusters for future Board seat openings
- Consider incorporating the Plymouth Growth and Development Corporation into the Foundation structure as a subsidiary to simplify downtown implementation
- Hire a full-time economic development manager to focus on business retention/expansion, entrepreneurial development, and marketing/recruitment implementation
- Hire a part-time (or contractual) marketing director to focus on collateral development/production, marketing and outreach coordination, event/networking coordination and general implementation support
- Identify and train a development ombudsman to assist businesses seeking development/regulatory approval for their business/property
- Identify and train 3-4 business ambassadors (preferably from the target industry clusters) to assist in business outreach, retention, and recruitment
- Identify and train 4-5 citizen advocates to aid in community engagement, education, and citizen outreach for precinct meetings
- Host joint Foundation-Chamber industry roundtables for downtown, retail, medical, manufacturing, and tourism that meet quarterly to identify new opportunities and address existing/future needs
- Host semiannual real estate investor networking events to build relationships/awareness of investment opportunities in Plymouth
- Host joint Foundation-Chamber bimonthly business-2-business networking events, focusing on different market sectors for each event
- Implement a quarterly business lecture series, inviting outside speakers to present topics identified by existing businesses through the marketing and communication effort
- Host semiannual networking meetings with key implementation partners identified
- Create mentorship program in similar structure to SCORE (or use the SCORE approach directly) to aid in entrepreneurial development

5. Regulatory

Success at business retention, expansion, and recruitment for any community relies on several factors. Having a clear, predictable, and consistent regulatory environment ranks highly for most businesses, particularly for smaller, locally-focused businesses. The Town of Plymouth staff has done a yeoman's job at identifying ways to simplify and normalize various approval processes. However, the Dukakis Center's EDSAT report and this economic development planning process have identified potential solutions and uncovered recommendations from existing residents and businesses for the Town staff to consider and implement. Implementation of any of these recommendations should be done only if the results [1] reduce

development/regulatory approval times, [2] create a more predictable outcome for applicants, and/or [3] reduce/eliminate vagueness in implementation language to avoid conflicting results; all while maintaining the Town's oversight responsibilities to ensure implementation is consistent with stated Town vision.

Specific implementation concepts include:

- Implement concurrent internal review procedures, requiring individual departments to coordinate before providing feedback to applicants
- Authorize administrative approvals for smaller projects that meet defined criteria established in the Town's bylaws
- Allow for concurrent application review (i.e. rezoning, variance, special permitting...) to reduce the overall approval timeline for applicants
- Expand the Town's regulatory environment for vertical mixed-use development in targeted economic development zones (i.e. the waterfront, downtown, Exit 7/Commerce Way, Exit 5/Long Pond Road, etc.)
- Require properties located in sewer service areas to connect to the sewer system in order to improve the financial viability of the system while decreasing impacts of infill development
- Establish by-right regulatory standards for development identified as priority initiatives for economic development (i.e. building height)
 - Rezone property for commercial development in the economic development zones
 - Create height and lot coverage standards consistent with zone vision
 - Consider DIF creation for economic development zones
- Consider fast-tracking permitting processes for target industry businesses or business investment that meets Town-defined parameters (i.e. minimum job creation or capital investment)

D. ASSET DEVELOPMENT

The economic development planning process also focused on identifying potential opportunities within specific areas of the Town. Simply put, Plymouth's diverse development patterns and sheer size necessitate a more location-based perspective when discussing opportunity. Most notably, the Town's current infrastructure pattern makes certain areas more viable for economic development growth than others, as access to roads and utilities vary greatly in Plymouth. This section provides a brief synopsis of the potential for various parts of Town. Implementation likely will be led through Town actions (particularly land use changes). RKG used the following criteria to create these recommendations.

- Recommendations seek to avoid oversaturating the marketplace, particularly through creating direct competition within the Town
- Focus economic development opportunities in areas with the greatest potential for success, as different parts of Town have different strengths and weaknesses
- Ensure new development is complementary to existing development
- Maximize the Town's limited land resources for economic development
- Identify opportunities that enhance the Town's tourism industry while creating a benefit for Plymouth residents

That said, RKG recognizes that future real estate development and investment in Plymouth must be considered through many prisms (i.e. transportation, preservation, infrastructure...). To this point, the economic development strategic plan recommendations should be considered as providing input based on maximizing job creation, business retention, expansion and recruitment, and fiscal sustainability. The ultimate development strategy must be taken up by residents, elected officials, and business leaders to determine the best path for the Town.

1. North Plymouth

Economic development opportunities in North Plymouth focus around the Cordage site and the North Plymouth village. The primary opportunity will be maximizing the potential of the Cordage property, focusing on transit-oriented development (TOD) intensity in-fill, predominantly on the water side of the railroad tracks. The redevelopment project of the former Wal-Mart site reflects this type of opportunity, but does not maximize the potential scale that could be captured at this location (Map 8-1, A). Creating a strong live (apartments and condos) work (office, flex space) environment can take advantage of the existing scale of the warehouse/production buildings while improving the long-term opportunity to get regular commuter rail operations into Plymouth.

Adaptive reuse of the currently-vacant warehouses near the shoreline should be a priority for the Town. These buildings make optimal sites for waterfront living and creative office space/flex space development (Map 8-1, B). The use of TIF or DIF should be considered if projects prove financially challenged. One mid-term consideration is the development of a parking garage to free up current surface lots for additional infill.

There was discussion about the potential for a higher education campus in North Plymouth on land east of Route 3A/Court Street along Hedge Road (Map 8-1, C). While this concept should continue to be explored, this specific location could also serve the Town's economic development efforts as a hotel/event center or an expansion of the live-work concept presented for the Cordage site, which is just north of Hedge Road.

Specific recommendations include:

- **Cordage Redevelopment Project** – The first phase of the former Wal-Mart site is finally moving forward with the planned mixed-use development project (Map 8-1, A). The initial-phase construction is expecting for 675 new housing units, 30,000 square feet of retail space, 20,000 square feet of office space, and a 300-slip marina on Plymouth Bay.² Working with the property owner to develop a master plan for the build out of the Cordage site that promotes more TOD principles into the intensity and mix of uses proposed could potentially maximize all the necessary components for a very vibrant development. Further, allowing development heights at the Cordage site consistent with the warehouse smoke stack offers a strong live-work-play environment.
- **Cordage/Waterfront Transit Oriented Development** – Rehabilitation and adaptive reuse to the currently-vacant warehouses near the shore line could make optimal sites for waterfront living and could include the proposed 20,000 square footage office space with these buildings (Map 8-1, B). If projects prove financially challenged, Town leadership should consider a TIF or DIF that encompasses the area bounded by the Bay to the east, Prince Street to the south, Court Street to the west, and Boundary Street to the north. Overall, the Cordage/ Waterfront TOD redevelopment project has an opportunity to increase commuter ridership by utilizing the Mass-Transit Kingston rail station, which could reduce public parking, enhance multi-modal connections and incorporate bikeshare programs as well as walkable-pedestrian friendly development.

² <https://www.capecod.com/newscenter/construction-begins-on-major-redevelopment-of-plymouths-cordage-park/>



- **Hotel/Event Center Concept** – The site just north of Hedge Road should serve to complement the live-work-play concept of the Cordage site (Map 8-1, C). A hotel/event center would offer an expansion of the entire waterfront area and would be complimentary of attracting local residents and regional commuters for entertainment, dining, tourism and recreational activities. From an economic perspective, the site has the opportunity for business expansion with the available retail/office space that is expected at the Cordage redevelopment site, which could ultimately enhance economic activity along the waterfront area.
- **Façade Program** – Façade improvement programs encourage property owners and businesses to improve the exterior appearance of their buildings and storefronts. Majority of the small businesses along Court Street have building designs that are outdated and in need of rehabilitation. Considering a façade improvement program for businesses located along this corridor has the potential to create a positive visual impact and improve the economic vitality/quality of life in the area, stimulate private investment, and complement other community development efforts throughout the Town of Plymouth (Map 8-1, D).

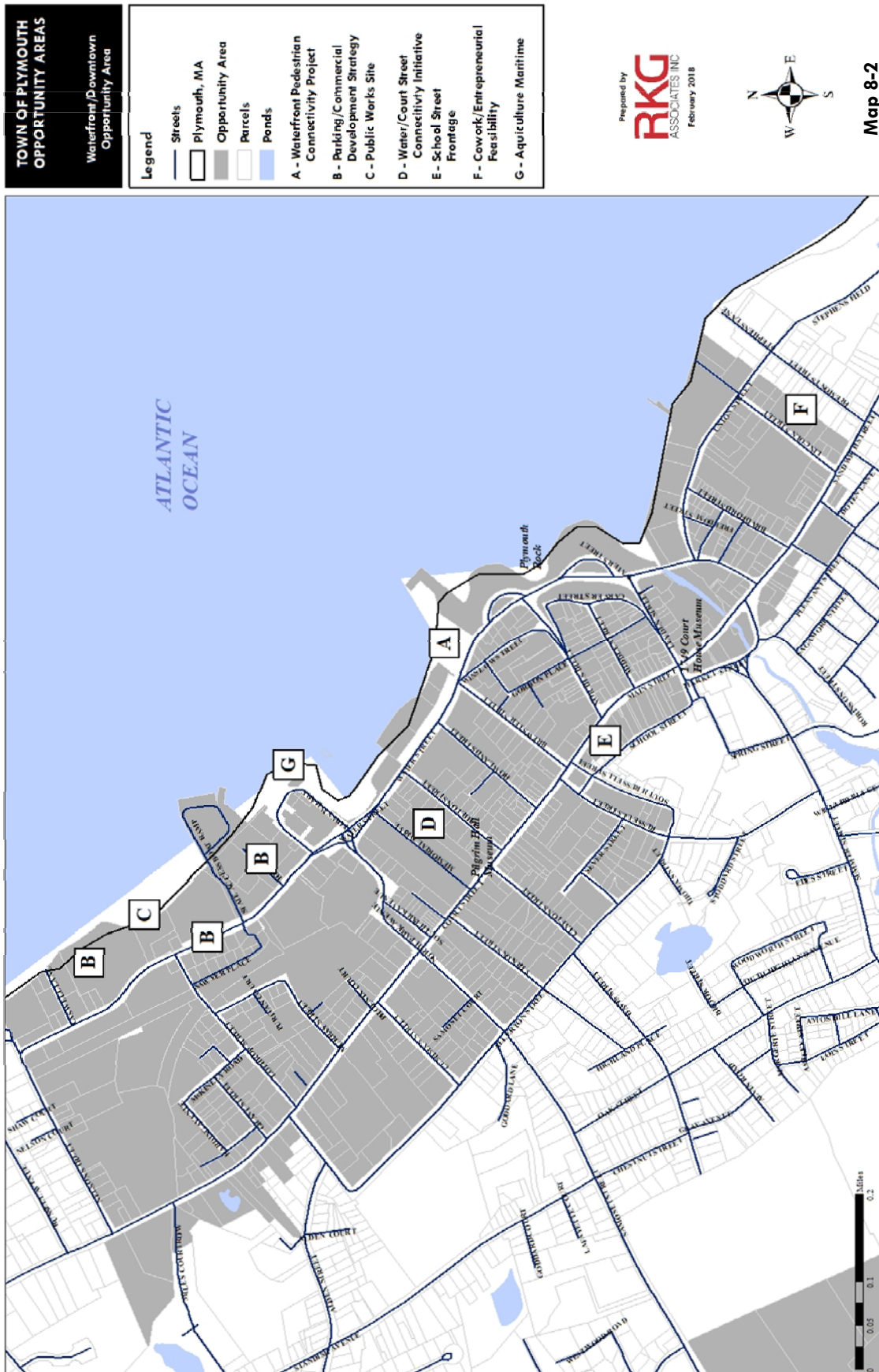
2. Waterfront/Downtown

The waterfront/downtown area should be a single economic development district, but currently operates as two separate entities due to inadequate visual and economic connectivity between Water Street and Court Street. That said, both areas have evolved into a dining/entertainment area of the Town due to the historic atmosphere, access to the Bay, and development scale. The economic development vision for this area should foster and expand this role for the waterfront/downtown area, further establishing it as a premier resident/tourist destination exceeding other regional locations such as Provincetown.

RKG Associates recognizes that Town Meeting declined to fund the final phase of the Water Street pedestrian improvement plan (Map 8-2, A). However, an alternative method to complete this project will benefit the Town's economic development efforts. At a base level, having a completed pedestrian walkway improves connectivity of the tourism/recreational assets on the waterfront. More strategically, the 400th anniversary celebration most likely will bring attention to Plymouth that it has not experienced in several years. Having a complete waterfront experience will be a critical component to maximizing the 'natural' marketing opportunity the celebration will bring, as visitors will recall their experience trying to navigate the numerous historic destinations that Plymouth offers.

Many of the Town's waterfront parcels are substantially underutilized, from an economic development perspective. Most notably, the Public Works site (Map 8-2, C) is incompatible with the vision for the waterfront. This should be relocated to open that parcel up for new economic development investment. Recapturing the surface parking lots by creating structured parking that increases total spaces while reducing the overall footprint also should be implemented. One concept presented during this effort is to 'wrap' waterfront parking garages with commercial development to create value to pay for the parking structures, to maximize parking for residents and visitors, and eliminate the unsightliness of a parking structure.

In terms of improving the connectivity between Water Street and Court Street, RKG reemphasizes the findings from several other studies to promote commercial investment on the side streets (i.e. Memorial, Chilton, Howland, Brewster North...) that connect Water Street and Court Street (Map 8-2, D). Having commercial activity (including bed and breakfasts, personal services, dining, and niche retail businesses) to draw people off the two main streets is critical to unifying the area. Concurrently, a more comprehensive signage initiative (either expanding existing design standards or through a comprehensive rebranding) that identifies existing and new assets and draws visitors to this new activity should be deployed.



The analysis also indicated substantial interest in expanding the Town's water-based economic development efforts (Map 8-2, E). This ranged from increasing the number of commercial fishing vessels to expanding the fledgling aquaculture environment to creating better waterborne travel options to Boston and Provincetown. RKG Associates encourages the Town to continue to actively pursue expanding these initiatives, particularly the expansion of the water taxi connection to Provincetown. This will increase visitation to downtown Plymouth while potentially reducing the traffic congestion that occurs along Route 3. However, it will require dedicated long-term parking for tourists to encourage use.

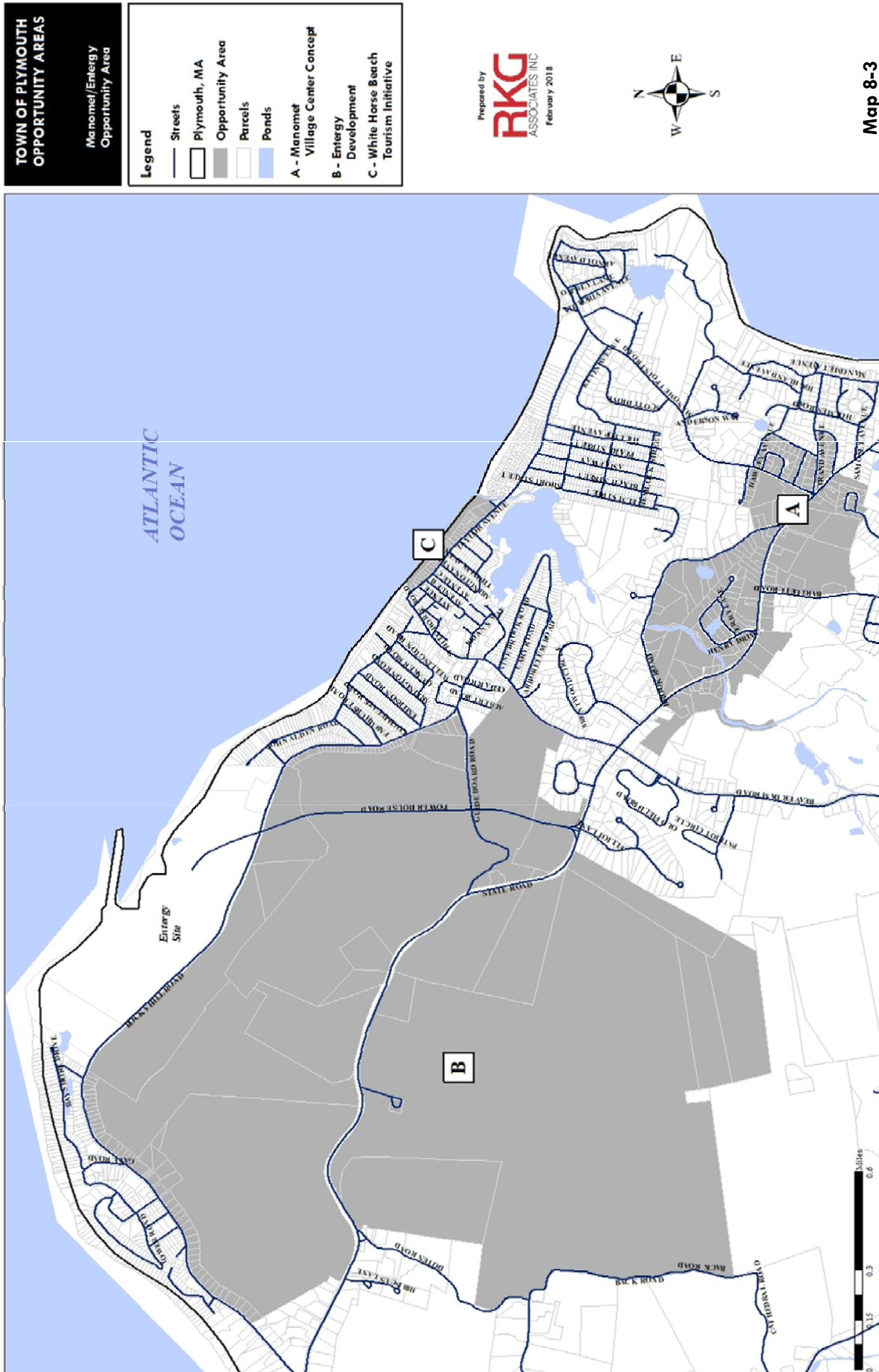
Another fundamental issue that currently is being discussed locally is expanding parking opportunities (Map 8-2, B). Whether the Town's leadership sees downtown parking as a benefit for residents and visitors (resulting in an increase cost to the Town) or a privilege that visitors (both local and tourist) should cover their fair share of the cost; having greater parking capacity will be necessary for the waterfront/downtown area to reach its full potential. The Town should perform a detailed parking analysis to determine the specific parking needs, particularly in context of expanding the water-based activity centers.

Specific recommendations include:

- **Waterfront Pedestrian Connectivity Project** – From an economic development perspective, the vision of this area should focus and expand the role of the downtown/water front area. Having a completed pedestrian walkway improves connectivity of the tourism/recreational assets on the waterfront (Map 8-2, A, D, E). With that said, the Town should enhance signage to promote pedestrian connectivity between Water and Court Street. Further, the recommendation of enabling redevelopment of frontage lots along School Street to better connect the Burial Hill Cemetery to Court and Water Streets should receive some attention. Incorporating complete streets and pedestrian connectivity should encourage the activation of side alley connections by working with property owners to make these pedestrian connections and streetscape/sidewalks along side streets more inviting to pedestrians. This initiative can create a walkable downtown atmosphere that can avoid traffic congestion and provide a complete waterfront experience where local residents and tourist can utilize all the assets within this area.
- **Parking /Commercial Development Strategy**– Parking availability and cost has become an issue throughout the downtown area. Similar to the recommendations in North Plymouth, the Foundation and planning department should consider implementation of a DIF district for the waterfront/downtown area to assist in the cost of new structured parking areas (Map 8-2, B). Parking area expansion will offer other opportunities for development use, such as, encouraging commercial conversion along side streets by enabling businesses in these areas and encouraging infill development up to the street.
- **Cowork/Entrepreneurial Feasibility** – Explore the feasibility to use 11 Lincoln Street as an entrepreneurial development center that houses the Town's entrepreneurial development efforts and offers co-work and shared office space (Map 8-2, F).

3. Manomet/Entergy

The Manomet subarea generally is a residential area of Plymouth with limited commercial activity, primarily focused around the intersection of Route 3A/State Road and Manomet Point Road and along White Horse Beach. Given the continued growth of Colony Place as a super-regional retail market, some retail operations in the area have struggled to compete. However, the Manomet area serves as a neighborhood-scale marketplace that serves both local residents as well as beach visitors during the season.



At a base level, the Manomet area would be best served by enhancing and improving the neighborhood village commercial concept, promoting businesses that offer convenience opportunities to residents and tourists alike. At White Horse Beach, this means preservation and potential growth of tourist-friendly opportunities (i.e. lodging, dining establishments, seasonal commercial businesses). At the State/Manomet Point intersection, it means promoting a village development concept that encourages the assemblage and reinvestment of State Street frontage properties that integrate commercial use with residential development as part of a vertical mixed-use development (Map 8-3, A). Increasing the number of households in the area will benefit the long-term sustainability of the area's retail.

More strategically, RKG Associates was tasked with analyzing the market potential and fiscal impact of new development on the 1,500 acres currently owned by Entergy (Map 8-3, B). As detailed in the companion document crafted by BSC Group and RKG Associates, any new development on this land is speculative at best, as Entergy has not indicated its intent to continue/maintain its Chapter 61 program or preferred long-term ownership strategy for the land. However, the RKG/BSC analysis identified some development concepts intended to balance the preservation of open space, maximize the economic development value of the property, encourages new housing development, and create a high net-positive fiscal benefit for the Town.

Highlights of those recommendations include [1] preserving existing park and historic sites on the property; [2] encouraging employment-based economic development on the remaining developable land to the east side of 3A; [3] creating a destination event/lodging facility at the peak of the hill; [4] encouraging a small-scale traditional neighborhood design development along the footpath at the ridgeline; and [5] preserving most of the land west of 3A, integrating eco-tourism opportunities that take advantage of the topography (i.e. a ropes course). This concept provides a balance of preservation, economic development, and fiscal sustainability

Specific recommendations include:

- **Manomet Village Center Concept** – This site is known for residential development with limited commercial activity. Majority of the retail operations in the area have struggled to compete due to robust activity that occurs at Colony Place. The town should consider promoting a village-scale redevelopment strategy at the State Street/Manomet Point intersection (Map 8-3, A). A key component to this effort should be considered by rezoning the land to accommodate the sites master plan resulting from this intersection.
- **Entergy Development** – The 1,500 acres owned by Entergy has not indicated its intent to continue/maintain its Chapter 61 program or preferred long-term ownership strategy for the land. To this regard, it is recommended that the Town's Planning Director and the Foundation's Executive Director work with Entergy to create a long-term strategy for the site. Further, the Town should retain focus on balancing preservation, job creation, housing development, and fiscal enhancement for future use of the Entergy property.
- **White Horse Beach Tourism Initiative** – Implementation of a village center at the intersection would likely enhance tourism initiatives along White Horse Beach. As of now, there aren't any public facilities that can cater to local residents or beach visitors during the season (Map 8-3, C). Preserving White Horse Beach and resolving property boundary lines can potentially present opportunities for lodging, entertainment, dining establishments, and initiate development for seasonal commercial businesses.

4. Exits 6/7

Exits 6 and 7 are the northern gateway for most travelers into Plymouth, whether coming from the north or from the west (Route 44). The area currently hosts the Town's largest industrial park as well as the super-regional retail center, Colony Place. This area has become the most substantial economic center within Plymouth.

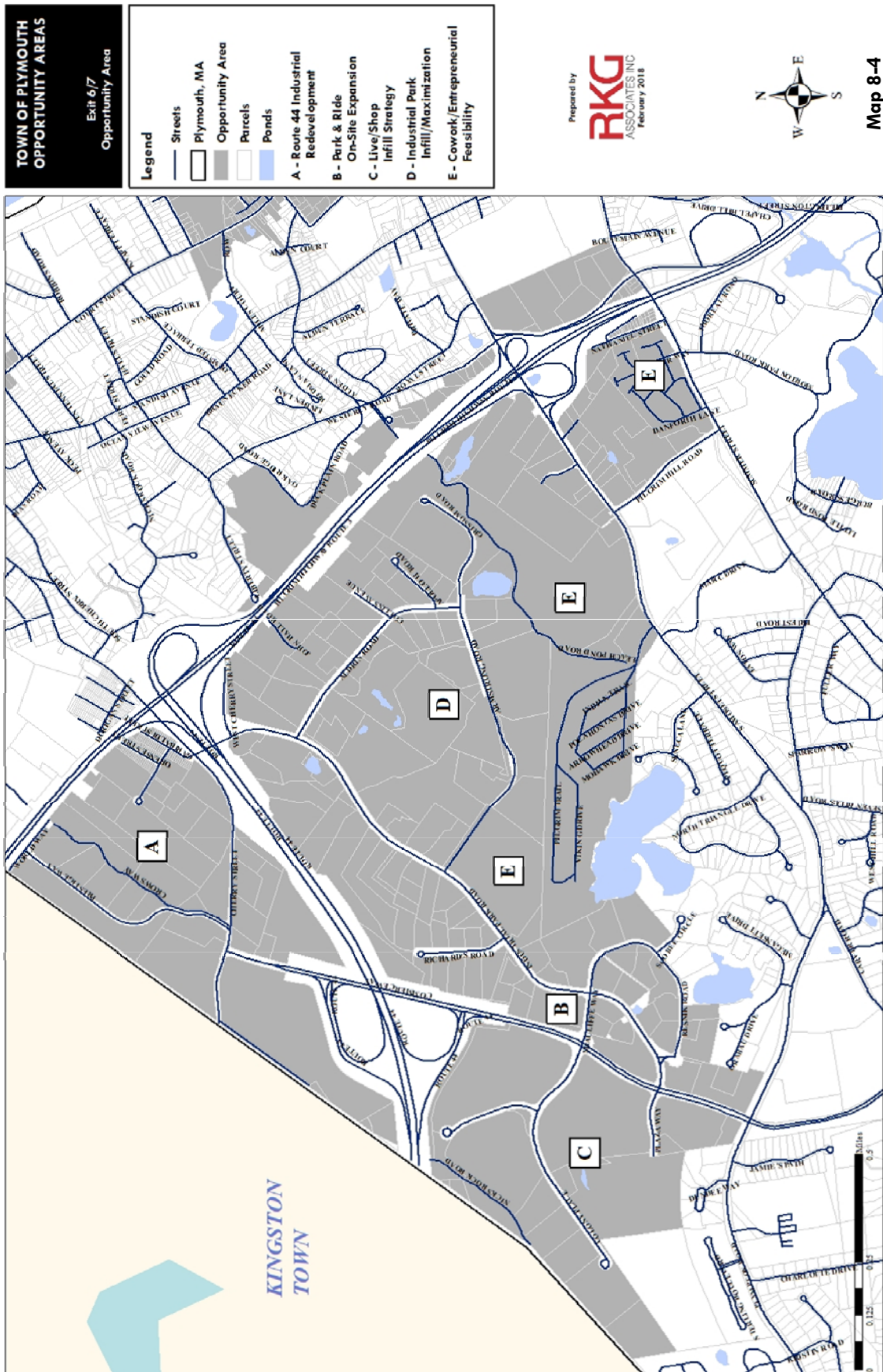
From an industrial perspective, preserving and expanding the production-based economy in the area should be the Town's focus (Map 8-4, D). There is some undeveloped (and underdeveloped) parcels in the industrial park, creating opportunities for additional business growth (Map 8-4, E). The Foundation should interact with the quarry operator to determine the future expansion/repurposing of the currently undisturbed land between Route 44 and the Kingston line (Map 8-4, A). Similarly, the Foundation should seek to open the development potential of the few remaining parcels in/abutting the park. For example, repurposing the Park and Ride lot for production-based activity should be explored (Map 8-4, B). The Town should revisit the park's zoning to encourage complementary infill development (i.e. dining and personal services) and on-site expansion. Simply put, the park is not developed efficiently, and additional activity could—and should—be promoted.

From a retail perspective, the Colony Place development and the Cranberry Crescent development abutting it have become the Town's and South Shore's retail destination (Map 8-4, C). However, the current layout has similar inefficiencies as the industrial park. Currently undeveloped land bays should be allowed to incorporate vertically mixed-use development that incorporates the by-right commercial space with upper-level residential space. Long term, the Town should work with the property owner to infill large parking fields with a town-center concept that incorporates parking structures. Like the Cordage and downtown recommendations, the Town should consider a DIF to help alleviate structured parking costs to meet this vision.

It is important to note these recommendations are intended to augment the by-right commercial capacity of Colony Place, Cranberry Crescent and the industrial park. It is not intended to replace the commercial capacity. Simply put, the Town has too little land zoned for non-residential development. All efforts should be made to expand capacity of existing land zoned for non-residential use, identify additional development areas for non-residential use, and allow residential development to diversify the Town's housing stock while incenting the development of additional commercial space as part of a vertically mixed-use program.

Specific recommendations include:

- **Industrial Redevelopment/Infill/Expansion** – This opportunity area offers the Town's largest industrial park as well as the super-regional center, Colony Place. The recommendation for the Industrial Park sites should involve reconfiguring of industrial zoning to increase land capacity with great FARs. Further, this strategy can encourage on-site expansion in coordination with connecting businesses and residents to the sewer system (Map 8-4, A, D). Integrating business recruitment strategies with new office/flex space development strategies should be taken into account. With that said, there is some undeveloped/undisturbed land between Route 44 and the Kingston line as well as Armstrong Road that has the potential for expansion. Additionally, working with property owners to ensure access to road, water, and sewer connectivity can support the initiative of tying additional capacity to minimum connection standards.



- **Live/Shop Infill Strategy** – The Colony Place development and the Cranberry Crescent development have become the Town’s and South Shore’s retail destination. The current lay out of the opportunity area has inefficiencies involving low concentration of residential development (Map 8-4, C). Efforts to incorporate housing options with the regional retail power center should be the Town’s focus. Refining existing inclusionary zoning policy for the vertical mixed-use zone can potentially ensure price diversity for new workforce households. Additionally, the goal for this site should allow building heights of 72 feet in Colony Place/Cranberry Crescent and Samoset Street west of Exit 6.

5. Exit 5

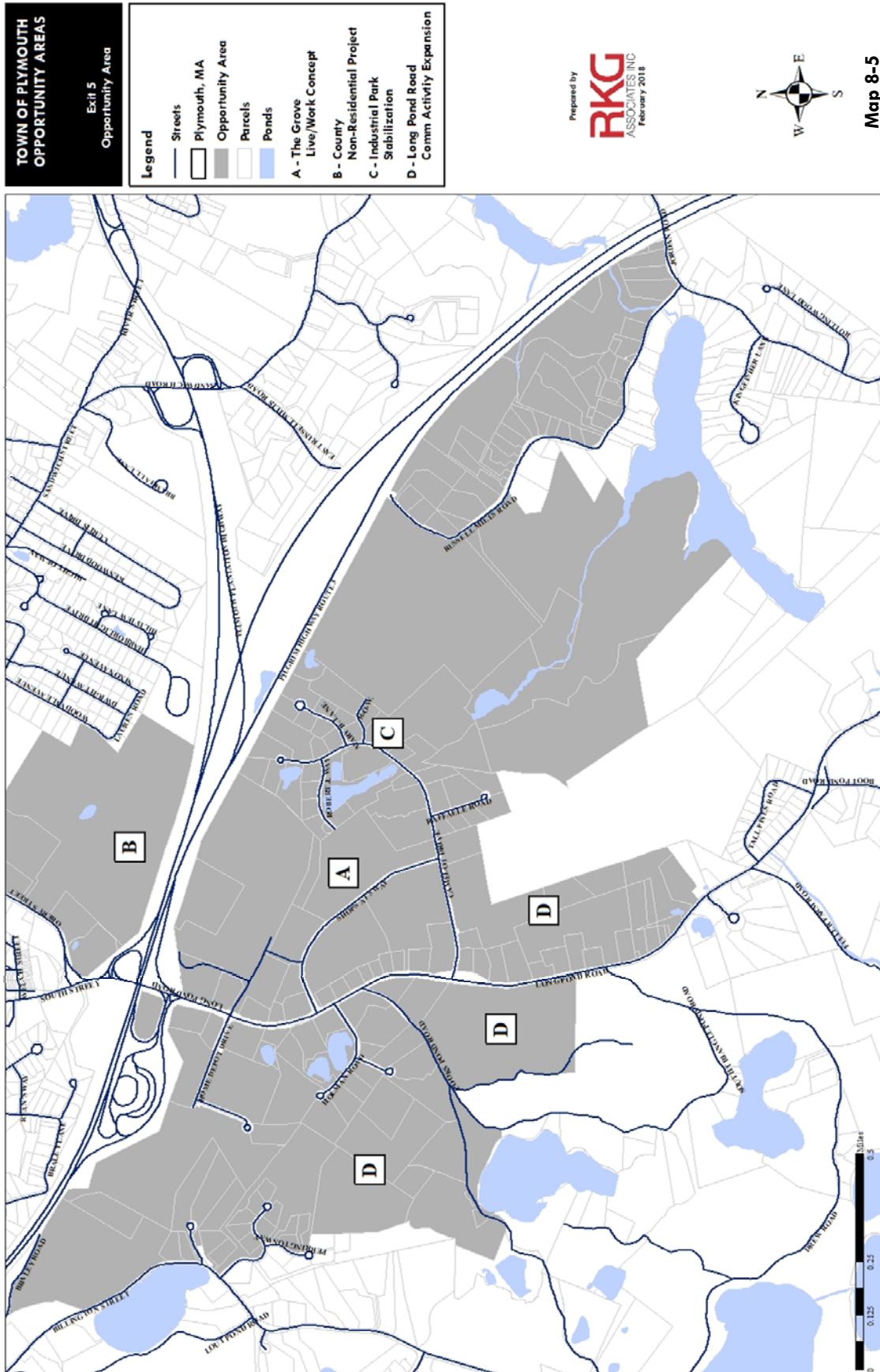
The exit 5 areas, particularly to the west/south of Route 3 is a substantial but smaller commercial center for Plymouth. The area is anchored by The Grove at Plymouth, a large retail power center. There is a small, but dynamic industrial park located to the south of The Grove along Camelot Drive (Map 8-5, C). The Exit 5 area also has a substantial public use presence including a water treatment facility, the Plymouth County correctional facility and sheriff’s office, and the County district court (north/east side of Route 3).

From a retail perspective, The Grove at Plymouth has not remained competitive within the regional marketplace, having vacancy in a few of its big-box spaces (Map 8-5, A). As the retail analysis indicated, Plymouth is over-retailed, and the critical mass for consumerism has shifted to Colony Place. To this point, there is an economic development opportunity to repurpose The Grove at Plymouth into a life-work town center concept. Unlike Colony Place/Cranberry Crescent, the recommendation for this area would be the phased redevelopment of portions of the site to accommodate new multifamily residential development as well as new office and office/flex space. Development could be vertically or horizontally integrated, depending on the type of non-residential development being proposed. As with the previous section, integrating residential development into The Grove is not intended to displace non-residential capacity, but rather augment it.

The Exit 5 area also has noticeable amount of undeveloped land, particularly along Long Pond Road to the south of The Grove (Map 8-5, D). This area is well suited for expanding the Town’s non-residential land base, particularly for expanding production-based businesses. Plymouth County also owns a large parcel to the north/east of Route 3, located between the district court and Route 3 (Map 8-5, B). This land also would be appropriate for new non-residential development. Coordination with the County on the current/future use of this land should be considered.

Specific recommendations include:

- **The Grove Live/Work Concept** – This opportunity area that is known as one of the Town’s large retail power centers, has experienced vacancy in a few of its big-box spaces. Rezoning The Grove At Plymouth to accommodate mixed-use, live-work town center development while maintaining the existing non-residential development capacity can help increase the competitiveness within the regional marketplace (Map 8-1, A). Overall, the Town of Plymouth is over-retailed where a high concentration of consumerism has shifted to Colony Place. The goal for this area should be to accommodate new multifamily residential development as well as new office and office/flex space. From an economic development perspective, implementing a live-work concept can lead to business expansion, increase job opportunities, and other redevelopment efforts, such as, the consideration of a DIF district on the south/west side of Route 3.



- **County Non-Residential Project** – Plymouth County owns the County Farm to the north/east of Route 3, located between the district and Route 3 (Map 8-5, B). The recommendation for this site involves working with the County to identify excess land that can be put back into non-residential use, potentially a land-lease strategy.
- **Industrial Park Stabilization/Commercial Development Expansion** – This site has a dynamic industrial park, which includes the waste water treatment plant, located to the south of The Grove along Camelot Drive. Stabilization and expanding the business production based economic development site should be a priority (Map 8-5, C). In fact, there is a noticeable amount of vacant undevelopable land, particularly along Long Pond Road that can support this initiative. Allowing 72-foot heights and rezoning vacant land adjacent to the commercial development can lead to other redevelopment efforts overall throughout the opportunity area (Map 8-5, D).

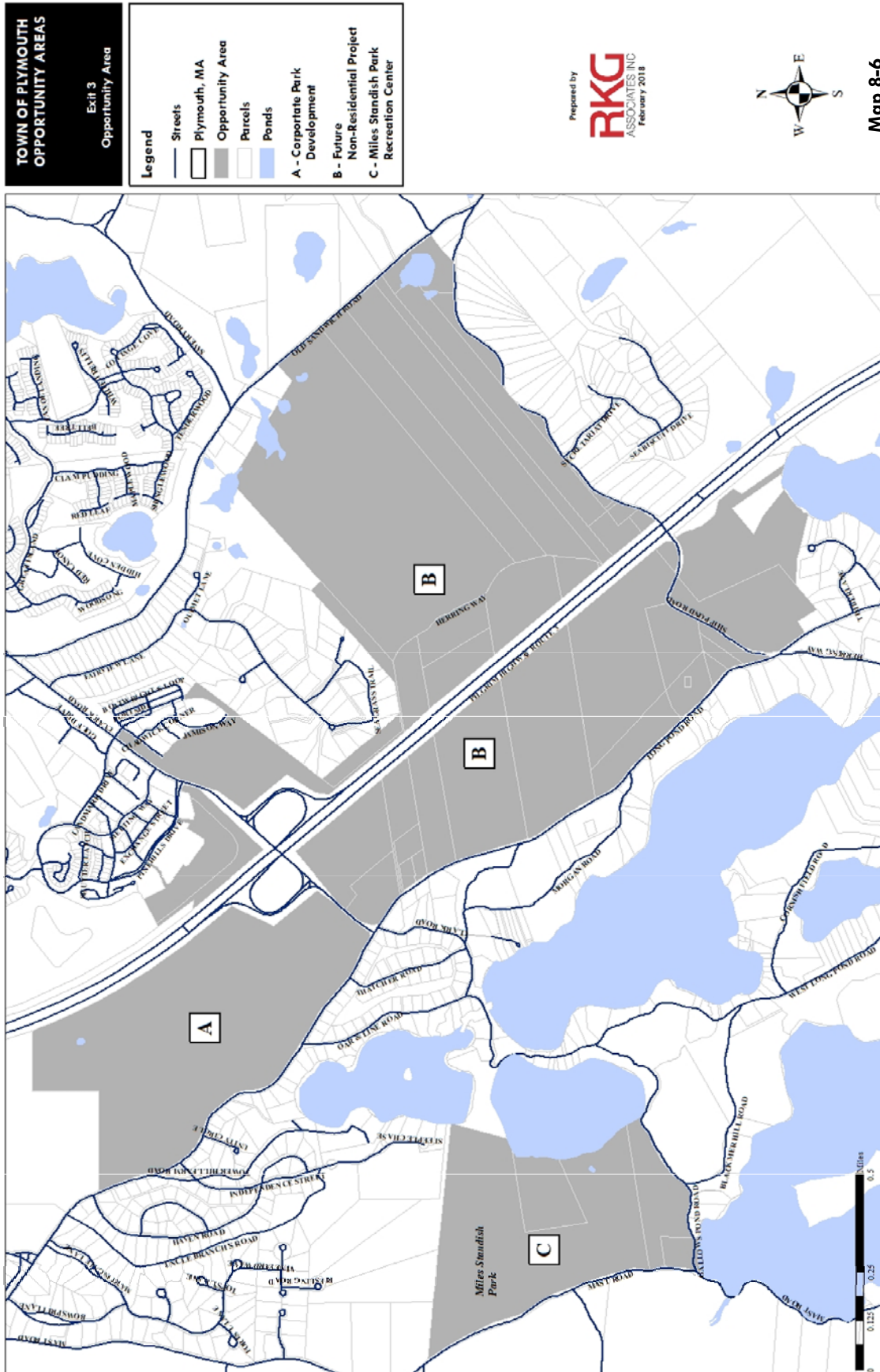
6. Exit 3

Exit 3 is the primary gateway to the Pinehills community (east of Route 3) and Redbrook/Make Peace (west of Route 3) communities. It also serves as a primary connector point for some of Plymouth's tourism destinations including Miles Standish park, Waverly Oaks Golf Club, Crosswinds Golf Club, and Old Sandwich Golf Club. Currently, the area is served by a small commercial cluster at the entrance to the Pinehills community. While additional non-residential development is programmed for the Pinehills community, there has been little new activity since the initial development on Pinehills Drive.

From an economic development perspective, the Exit 3 area is best suited for additional production-based growth, targeting smaller-scale office flex and cottage-scale production businesses. There are substantial land assets located on either side of Route 3 suitable for this development particularly along Long Pond Road (Map 8-6, A). Creating the regulatory environment to develop a corporate park scale development (potentially with a live-work component) would activate this area while controlling the scale and development intensity to a scale consistent with the recent community investments.

It is RKGs understanding that implementation of this concept may require removing land currently placed in permanent conservation. The use of land swaps, though not common, are legal within Massachusetts. Given the Town's goal to cluster new development to reduce the cost of services and increase government efficiency, identifying areas less economically viable to place into conservation serves multiple purposes for the Town. Instituting the state's requirement of a 2 to 1 ratio for land swapping benefits both economic development and conservation efforts. The former benefits by getting land appropriate for new growth back into the marketplace. The latter benefits by increasing the net amount of conserved land in the Town.

From a tourism perspective, there is substantial opportunity to create a stronger outdoor recreation cluster in Miles Standish park (Map 8-6, B). Amenities ranging from ropes courses to climbing walls to frisbee golf courses easily can be accommodated within the park. Locating them near other outdoor recreation venues already in the park (particularly camping and cabins) is a logical approach to increasing the number of destination tourism venues. As noted earlier in the process, increasing activities that appeal to families complements the historic and passive venues in Plymouth.



Specific recommendations include:

- **Corporate Park Development** – The Town of Plymouth has the potential of creating a regulatory environment to propose a corporate park scale development that includes a work-live component. Specifically, the Exit 3 area is best economically viable for additional production-based growth along Long Pond Road (Map 8-6, A). Rezoning land at Exit 3 interchange can accommodate new office/flex, and light production. In terms of the Town’s goal to cluster new development to reduce the cost of services, identifying land suitable for land swap in areas of the Town that are less appropriate for economic development activity should be a priority. Ultimately, creating a land swap policy for conservation land that requires greater conservation commitment from the swap would be complementary towards this effort.
- **Recreation/Tourism Development** – Overall, this opportunity area has great potential to increase the number of destination tourism venues in Plymouth at Miles Standish Park as well as two vacant on the east and west sides of Route 3 near the Exit 3 interchange. Working with the Commonwealth to test feasibility of a state of the art outdoor recreation complex in Miles Standish Park can support this effort. Exit 3 serves as a primary connector point for some Plymouth’s tourism destinations as well as the primary gateway to Pinehills. The Town has 365 ponds, with few activated for recreational/tourism use. Creating a hub for outdoor enthusiasts at a highly accessible and visible location could be the initial effort to create a more coordinated recreation/tourism strategy.

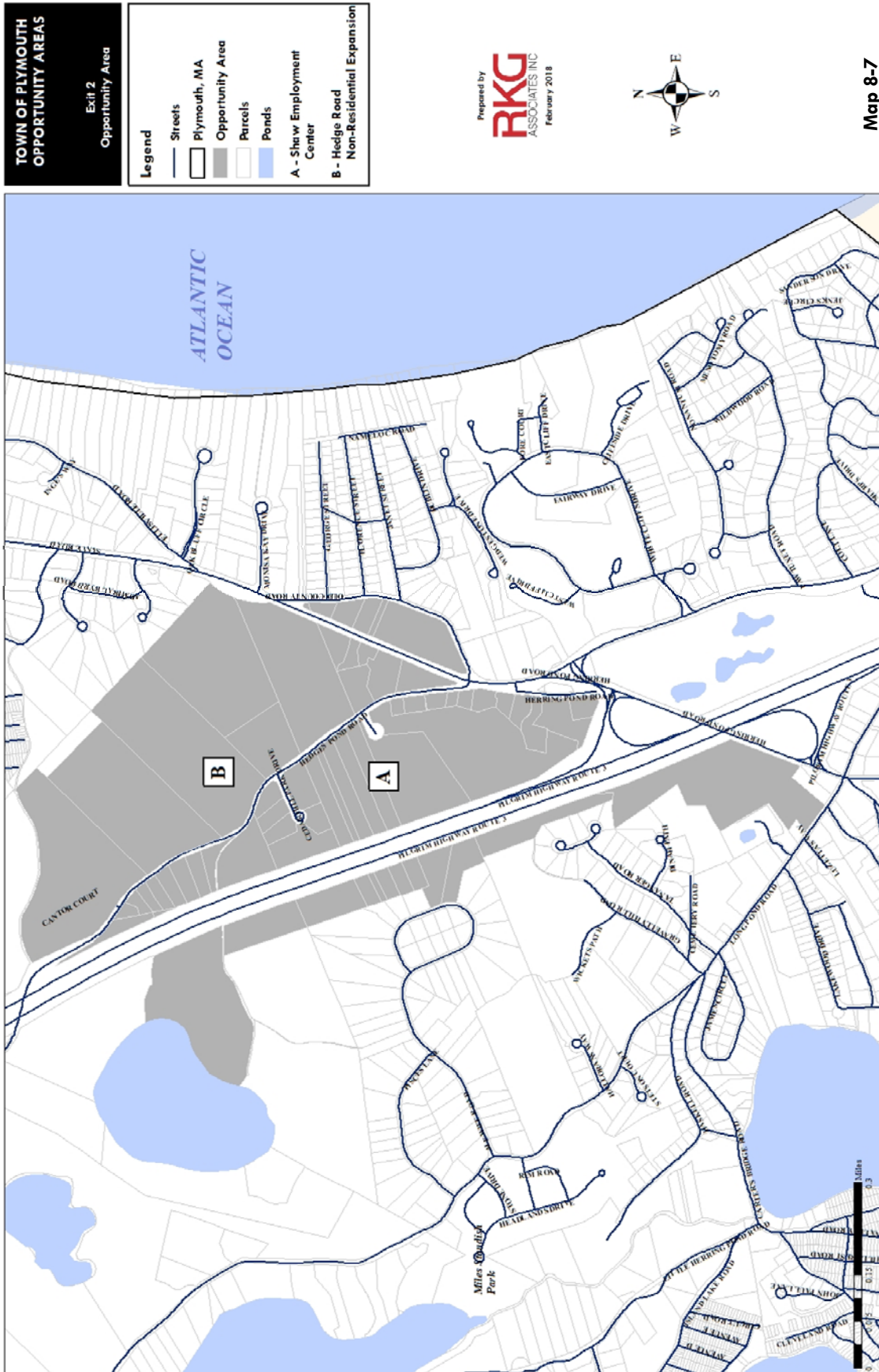
7. Exit 2

The market potential for Exit 2 is similar to the Exit 3 area. There is a small commercial and production-based business cluster on the east side of Route 3 focused around the Shaw’s shopping center and the industrial uses along Hedges Pond Road (Map 8-7, A). The Foundation has been active on a parcel they own in this area to attract new production-based employment. From an economic development perspective, this area has the potential to attract additional smaller-scale employment generating uses.

There is a cranberry bog, gravel company, and large undeveloped parcel (not including the Foundation parcel) located north of Exit 2 along Hedges Pond Road (Map 8-7, B). This collective area has much greater tax revenue/employment creation potential than the current uses. Working with the existing property owners to identify redevelopment potential should be a priority. As with Exit 3, any land in this area currently in conservation will require a land swap (unless it is a water well). The Exit 2 area is a logical location to consider a DIF, as it generally is undeveloped and can benefit from a strategic, comprehensive village plan.

Specific recommendations include:

- **Shaw Employment Center** – Similar to the Exit 3 opportunity area, the Town should continue to pursue and attract new production-based employment. The boundaries identified by the consultant and Foundation focus on the areas surrounding the Shaw shopping center and the industrial uses along Hedges Pond Road (Map 8-7, A). Further, the Foundation has been active on a parcel they own in this area. From an economic perspective, attracting additional smaller-scale employment generating uses gives the area opportunities to enhance the existing small commercial and production-business cluster on the east side of Route 3.



- **Hedge Road Nonresidential Concept** – Ultimately, the goal for this area is to work with property owners to determine short- and long-term investment strategies for large parcels suited for non-residential development. Specifically, rezoning target parcels to accommodate new non-residential development should be a priority. Currently, the site includes a cranberry bog, gravel company, and large undeveloped parcels. Creating a land swap policy for conservation land that requires greater conservation commitment from the swap should be considered. Simply put, this collective area has much greater tax revenue/employment creation potential than the current uses.
- **Future Economic Development Site** – The White Cliffs Golf Course is in a strong and economically viable location for future development. In the proximity of the Exit 2 interchange, this site offers visibility and efficient site access for employment generation and tourism-based businesses (Map 8-7, C). This consideration of long-term economic development potential can present opportunities for future residential and nonresidential development. This future economic development site would be complimentary to the initiative of the Shaw Employment Center as well as the Hedge Road Nonresidential Concept.

8. Former Campsite Location

Throughout the strategic planning process, discussion took place about the former campsite area off Bourne Road near Highway 25 adjacent to the Sandy Pond Campground and the Atlantic Country Club as a potential economic development area. By RKG’s analysis, the site in question has more than 2,200 parcels over 500 acres. Based on an analysis of the area, this site is not—and likely will never be—appropriate for economic development purposes. Here are the primary reasons for this conclusion:

- **Ownership** – At a base level, it is well established that ownership records for this area is uncertain. The cost to clear the title for all these properties was reported to be substantial (an actual number has not been calculated). Even if ownership could be resolved in a cost-effective manner, the likelihood of acquiring all the parcels at this point would be daunting, and very expensive.
- **Location** – The campsite is located in a very remote part of the Town, with poor transportation, infrastructure, and utility access. From a competitive perspective, this location would be inferior to most any ‘pad ready’ site in the region.
- **Access** – Despite straddling Highway 25 as it enters Bourne Township, the site in question is not served with a direct interchange. Similar to the previous points, the cost to provide direct access to Highway 25 would be substantial. There are several locations with Plymouth that already have good access to Route 3 with little or no road enhancements.
- **Cost** – Cumulatively, the costs to address the previous challenges would be substantial to the Town. Given the goals to enhance the community’s fiscal sustainability, embarking on the cost required to make this site competitive within the regional economic development marketplace would be unwise at best, irresponsible at worst. In short, and revenue recovery from any acquisition and/or fiscal enhancements almost certainly would not recover the costs needed to activate the site.

The campsite location would be much better utilized as a ‘receiver’ location for the transfer of conservation commitments for those locations which would better serve the Town’s economic and fiscal needs. A more detailed discussion of that concept and the replacement requirements is in Chapter 8.



APPENDIX

Population Trends (2000-2021)

Town of Plymouth and Surrounding Region

| | 2000 | 2010 | 2016 | 2021 | Change '00 - '10 | | Change '10 - '16 | | Change '16 - '21 | |
|--------------------|--------|--------|--------|--------|------------------|---------|------------------|---------|------------------|---------|
| | | | | | Persons | Percent | Persons | Percent | Persons | Percent |
| Town Of Plymouth | 51,701 | 55,606 | 57,848 | 59,724 | 3,905 | 7.6% | 2,242 | 4.0% | 1,876 | 3.2% |
| Bourne Town | 18,701 | 19,754 | 19,577 | 20,480 | 1,053 | 5.6% | -177 | -0.9% | 903 | 4.6% |
| Carver Town | 11,189 | 11,509 | 11,447 | 12,192 | 320 | 2.9% | -62 | -0.5% | 745 | 6.5% |
| Duxbury Town | 14,217 | 15,059 | 14,897 | 14,669 | 842 | 5.9% | -162 | -1.1% | -228 | -1.5% |
| Kingston Town | 11,811 | 12,629 | 12,470 | 13,618 | 818 | 6.9% | -159 | -1.3% | 1,148 | 9.2% |
| Marshfield Town | 24,312 | 25,132 | 24,969 | 25,337 | 820 | 3.4% | -163 | -0.6% | 368 | 1.5% |
| Middleborough Town | 19,941 | 23,116 | 22,538 | 27,780 | 3,175 | 15.9% | -578 | -2.5% | 5,242 | 23.3% |
| Wareham Town | 20,335 | 21,822 | 21,536 | 24,089 | 1,487 | 7.3% | -286 | -1.3% | 2,553 | 11.9% |

Source: U.S. Census Bureau, UMass Donahue Institute, RKG Associates, Inc., 2017

Note: 2000, 2010 & 2016 from U.S. Census Bureau ; 2021 data from UMass Donahue Institute Vintage 2016 Population Projections

**Population Age Composition (2000 - 2021)
 Town of Plymouth and Surrounding Region**

| | Town of Plymouth | | | Bourne Town | | | Carver Town | | | Duxbury Town | | |
|----------------|------------------|-------|-------|-------------|-------|-------|-------------|-------|-------|--------------|-------|-------|
| | 2000 | 2010 | 2021 | 2000 | 2010 | 2021 | 2000 | 2010 | 2021 | 2000 | 2010 | 2021 |
| 0 to 4 years | 3,478 | 3,187 | 2,654 | 3,278 | 3,508 | 3,278 | 888 | 888 | 689 | 726 | 590 | 536 |
| 5 to 9 years | 3,859 | 3,531 | 3,504 | 3,508 | 3,508 | 3,508 | 1,002 | 1,002 | 848 | 851 | 724 | 609 |
| 10 to 14 years | 3,789 | 3,484 | 3,363 | 3,392 | 3,363 | 3,392 | 1,097 | 1,097 | 1,082 | 912 | 794 | 690 |
| 15 to 19 years | 3,367 | 3,495 | 3,439 | 3,112 | 3,439 | 3,112 | 1,417 | 1,417 | 1,595 | 820 | 791 | 661 |
| 20 to 24 years | 2,513 | 2,872 | 3,348 | 2,735 | 3,348 | 2,735 | 1,209 | 1,599 | 1,262 | 503 | 566 | 499 |
| 25 to 34 years | 7,500 | 6,412 | 5,699 | 7,221 | 6,412 | 5,699 | 1,833 | 1,833 | 1,636 | 1,341 | 1,104 | 1,204 |
| 35 to 44 years | 9,040 | 8,462 | 7,742 | 7,815 | 8,462 | 7,742 | 2,268 | 2,268 | 2,259 | 1,816 | 1,650 | 1,481 |
| 45 to 54 years | 7,932 | 8,840 | 9,340 | 8,538 | 9,340 | 8,538 | 3,003 | 3,003 | 3,111 | 1,701 | 1,852 | 1,697 |
| 55 to 64 years | 4,411 | 8,232 | 8,305 | 9,218 | 8,305 | 9,218 | 1,866 | 2,935 | 3,062 | 843 | 1,703 | 1,991 |
| 65 to 74 years | 2,672 | 4,544 | 6,723 | 9,090 | 4,544 | 6,723 | 1,863 | 2,133 | 2,133 | 823 | 924 | 1,447 |
| 75 to 84 years | 2,170 | 2,217 | 2,613 | 4,048 | 2,217 | 2,613 | 1,309 | 1,309 | 1,367 | 676 | 599 | 697 |
| 85+ years | 970 | 1,192 | 1,118 | 1,384 | 1,192 | 1,118 | 540 | 540 | 685 | 151 | 206 | 180 |

Source: U.S. Census Bureau, Esri, RKG Associates, Inc., 2017

Note: 2000m 2010 & 2016 from U.S. Census Bureau data from 2000 Census, 2021 data from UMass Donahue Institute Vintage 2016 Population Projections

**Population Age Composition (2000 - 2021)
 Town of Plymouth and Surrounding Region**

| | Kingston Town | | | Marshfield Town | | | Middleborough Town | | | Wareham Town | | |
|----------------|---------------|-------|-------|-----------------|-------|-------|--------------------|-------|-------|--------------|-------|-------|
| | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 |
| 0 to 4 years | 986 | 695 | 546 | 750 | 1,924 | 1,384 | 1,264 | 1,291 | 1,391 | 1,325 | 1,282 | 1,429 |
| 5 to 9 years | 937 | 929 | 911 | 688 | 1,886 | 1,795 | 1,776 | 1,257 | 1,573 | 1,493 | 1,258 | 1,523 |
| 10 to 14 years | 888 | 985 | 822 | 781 | 1,841 | 1,931 | 1,875 | 1,548 | 1,623 | 1,609 | 1,366 | 1,618 |
| 15 to 19 years | 639 | 838 | 1,010 | 826 | 1,497 | 1,676 | 1,780 | 1,615 | 1,349 | 1,508 | 1,842 | 1,412 |
| 20 to 24 years | 391 | 588 | 876 | 684 | 908 | 1,126 | 1,141 | 1,211 | 964 | 1,185 | 1,220 | 1,218 |
| 25 to 34 years | 1,508 | 1,045 | 1,074 | 1,600 | 3,014 | 1,974 | 2,456 | 2,533 | 2,852 | 2,415 | 2,772 | 2,972 |
| 35 to 44 years | 2,210 | 1,836 | 1,574 | 1,312 | 4,574 | 3,483 | 2,760 | 2,363 | 3,680 | 3,397 | 3,033 | 3,077 |
| 45 to 54 years | 1,684 | 2,180 | 2,396 | 1,897 | 4,000 | 4,598 | 4,480 | 3,628 | 2,859 | 3,765 | 4,120 | 3,628 |
| 55 to 64 years | 936 | 1,620 | 1,688 | 2,118 | 2,380 | 3,763 | 4,126 | 4,369 | 1,597 | 3,018 | 3,011 | 3,908 |
| 65 to 74 years | 729 | 917 | 945 | 1,704 | 1,344 | 2,094 | 2,459 | 3,449 | 987 | 1,972 | 2,413 | 4,097 |
| 75 to 84 years | 611 | 618 | 686 | 784 | 740 | 979 | 1,027 | 1,585 | 762 | 990 | 949 | 2,218 |
| 85+ years | 261 | 378 | 430 | 474 | 216 | 319 | 361 | 488 | 304 | 442 | 442 | 680 |

Source: U.S. Census Bureau, Esri, RKG Associates, Inc., 2017

Note: 2000m 2010 & 2016 from U.S. Census Bureau data from 2000 Census, 2021 data from UMass Donahue Institute Vintage 2016 Population Projections

**Racial & Ethnic Distribution (2000 - 2021)
 Town of Plymouth and Surrounding Region**

| | Town of Plymouth | | | Bourne Town | | | Carver Town | | | Duxbury Town | | |
|-------------------|------------------|-------|-------|-------------|-------|-------|-------------|-------|-------|--------------|-------|-------|
| | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 |
| White | 94.8% | 93.8% | 93.2% | 94.7% | 93.5% | 92.4% | 95.8% | 95.6% | 93.8% | 97.8% | 97.3% | 97.1% |
| Black | 1.9% | 2.0% | 2.0% | 1.4% | 1.5% | 3.0% | 1.2% | 1.2% | 2.2% | 0.6% | 0.4% | 0.7% |
| American Indian | 0.3% | 0.3% | 0.3% | 0.5% | 0.5% | 0.2% | 0.1% | 0.2% | 0.2% | 0.1% | 0.1% | 0.1% |
| Asian | 0.6% | 0.9% | 1.2% | 0.7% | 1.2% | 0.8% | 0.3% | 0.4% | 0.9% | 0.6% | 1.0% | 0.8% |
| Pacific Islander | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Some Other Race | 0.9% | 1.1% | 1.4% | 1.0% | 1.1% | 1.2% | 1.0% | 1.0% | 1.2% | 0.3% | 0.4% | 0.5% |
| Two or More Races | 1.5% | 1.7% | 1.9% | 1.7% | 2.2% | 2.3% | 1.6% | 1.7% | 1.8% | 0.6% | 0.8% | 0.8% |
| Hispanic Origin | 1.7% | 1.8% | 2.2% | 1.5% | 1.8% | 3.1% | 0.8% | 1.1% | 0.8% | 0.7% | 1.2% | 0.6% |

Source: U.S. Census Bureau, Esri, RKG Associates, Inc., 2017

Note: 2000, 2010 & 2016 data from U.S. Census Bureau, 2021 data from Esri projection.

**Racial & Ethnic Distribution (2000 - 2021)
 Town of Plymouth and Surrounding Region**

| | Kingston Town | | | Marshfield Town | | | Middleborough Town | | | Wareham Town | | |
|-------------------|---------------|-------|-------|-----------------|-------|-------|--------------------|-------|-------|--------------|-------|-------|
| | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 | 2000 | 2010 | 2016 |
| White | 97.0% | 96.1% | 95.3% | 97.7% | 96.5% | 96.0% | 96.1% | 94.5% | 94.7% | 87.4% | 86.5% | 86.6% |
| Black | 1.0% | 1.1% | 1.8% | 0.5% | 0.5% | 0.2% | 1.3% | 1.8% | 2.4% | 2.9% | 3.5% | 2.2% |
| American Indian | 0.1% | 0.1% | 0.1% | 0.1% | 0.2% | 0.2% | 0.3% | 0.3% | 0.1% | 0.5% | 0.6% | 0.1% |
| Asian | 0.4% | 0.9% | 0.9% | 0.4% | 0.8% | 0.9% | 0.4% | 0.9% | 0.7% | 0.4% | 0.7% | 0.3% |
| Pacific Islander | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% |
| Some Other Race | 0.5% | 0.5% | 0.7% | 0.5% | 0.9% | 1.1% | 0.6% | 0.7% | 0.8% | 5.2% | 4.4% | 5.1% |
| Two or More Races | 1.0% | 1.3% | 1.2% | 0.8% | 1.2% | 1.6% | 1.3% | 1.8% | 1.3% | 3.4% | 4.3% | 5.4% |
| Hispanic Origin | 0.7% | 1.1% | 2.5% | 0.7% | 1.4% | 1.4% | 0.8% | 1.8% | 1.5% | 1.4% | 2.3% | 1.6% |

Source: U.S. Census Bureau, Esri, RKG Associates, Inc., 2017

Note: 2000, 2010 & 2016 data from U.S. Census Bureau, 2021 data from Esri projection.

Household Trends (2000-2021)

Town of Plymouth and Surrounding Region

| | 2000 | 2010 | 2016 | 2021 | Change '00 - '10 | | Change '10 - '16 | | Change '16 - '21 | |
|--------------------|--------|--------|--------|--------|------------------|---------|------------------|---------|------------------|---------|
| | | | | | Count | Percent | Count | Percent | Count | Percent |
| Town of Plymouth | 18,423 | 21,269 | 22,363 | 23,301 | 2,846 | 15.4% | 1,094 | 5.1% | 938 | 4.2% |
| Bourne Town | 7,437 | 7,866 | 8,270 | 8,558 | 429 | 5.8% | 404 | 5.1% | 288 | 3.5% |
| Carver Town | 3,991 | 4,297 | 4,450 | 4,597 | 306 | 7.7% | 153 | 3.6% | 147 | 3.3% |
| Duxbury Town | 4,934 | 5,344 | 5,549 | 5,747 | 410 | 8.3% | 205 | 3.8% | 198 | 3.6% |
| Kingston Town | 4,260 | 4,665 | 4,796 | 4,926 | 405 | 9.5% | 131 | 2.8% | 130 | 2.7% |
| Marshfield Town | 8,901 | 9,526 | 10,088 | 10,559 | 625 | 7.0% | 562 | 5.9% | 471 | 4.7% |
| Middleborough Town | 6,981 | 8,468 | 8,720 | 8,977 | 1,487 | 21.3% | 252 | 3.0% | 257 | 2.9% |
| Wareham Town | 8,200 | 9,071 | 9,489 | 9,854 | 871 | 10.6% | 418 | 4.6% | 365 | 3.8% |

Source: Esri, RKG Associates, Inc., 2017

Note: 2000 and 2010 data calculated based on ERSI Community Profile data; 2016 and 2021 data from Esri projections.

**Household Income Distribution by Percentage (2000 - 2021)
Town of Plymouth and Surrounding Region**

| | Town of Plymouth | | Bourne Town | | Carver Town | | Duxbury Town | | | | | |
|-----------------------|------------------|-------|-------------|-------|-------------|-------|--------------|-------|-------|-------|-------|-------|
| | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | | | | |
| | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | | | | |
| <\$15,000 | 10.2% | 7.3% | 13.4% | 10.6% | 11.6% | 7.4% | 13.1% | 7.0% | 7.4% | 4.8% | 3.5% | 3.5% |
| \$15,000 - \$24,999 | 8.5% | 6.1% | 11.9% | 8.4% | 7.8% | 5.4% | 10.6% | 5.9% | 5.4% | 6.1% | 2.5% | 2.2% |
| \$25,000 - \$34,999 | 10.4% | 6.5% | 13.7% | 7.2% | 6.9% | 7.2% | 10.7% | 7.6% | 7.2% | 4.2% | 4.2% | 3.5% |
| \$35,000 - \$49,999 | 14.7% | 10.1% | 16.8% | 12.9% | 14.1% | 11.6% | 11.7% | 11.5% | 11.6% | 7.3% | 5.0% | 4.5% |
| \$50,000 - \$74,999 | 24.1% | 15.5% | 20.9% | 16.3% | 11.0% | 11.6% | 26.1% | 17.2% | 11.6% | 12.9% | 11.0% | 7.3% |
| \$75,000 - \$99,999 | 16.0% | 14.4% | 13.3% | 14.2% | 14.4% | 17.7% | 16.2% | 16.7% | 17.7% | 16.3% | 8.4% | 8.8% |
| \$100,000 - \$149,999 | 11.4% | 22.7% | 6.7% | 17.5% | 18.8% | 24.9% | 8.9% | 22.1% | 24.9% | 27.3% | 21.0% | 22.3% |
| \$150,000 - \$199,999 | 2.7% | 9.6% | 1.9% | 7.5% | 9.0% | 9.2% | 1.7% | 7.6% | 9.2% | 9.4% | 14.9% | 16.2% |
| \$200,000+ | 1.9% | 7.8% | 1.4% | 5.3% | 6.3% | 4.9% | 1.0% | 4.3% | 4.9% | 11.7% | 29.5% | 31.7% |

Source: U.S. Census Bureau, Esri, RKG Associates, Inc., 2017

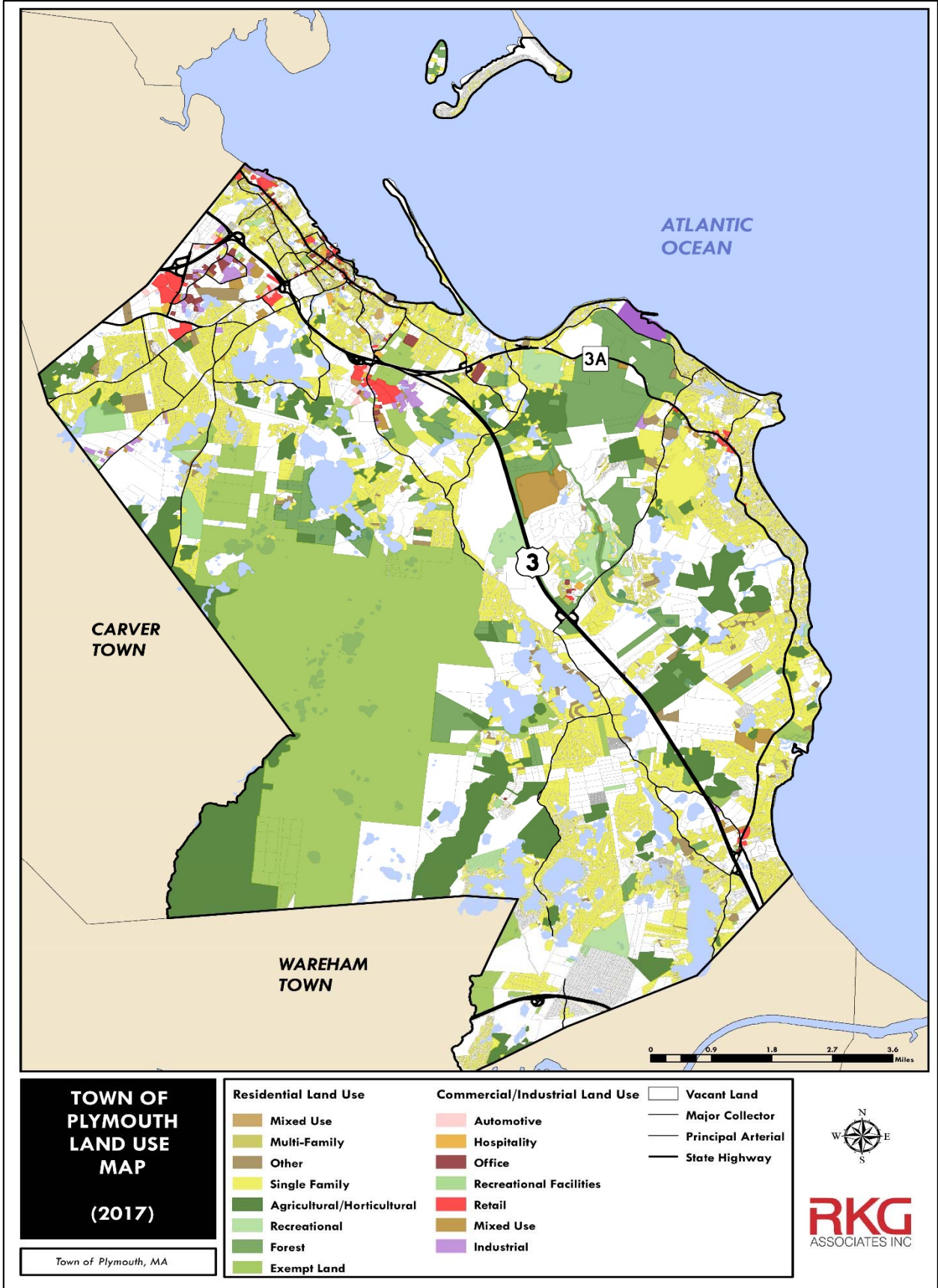
Note: 2000 income data based on 2000 Census Sample data. Total households may differ from those reported using the full dataset. 2016 and 2021 data from Esri projection.

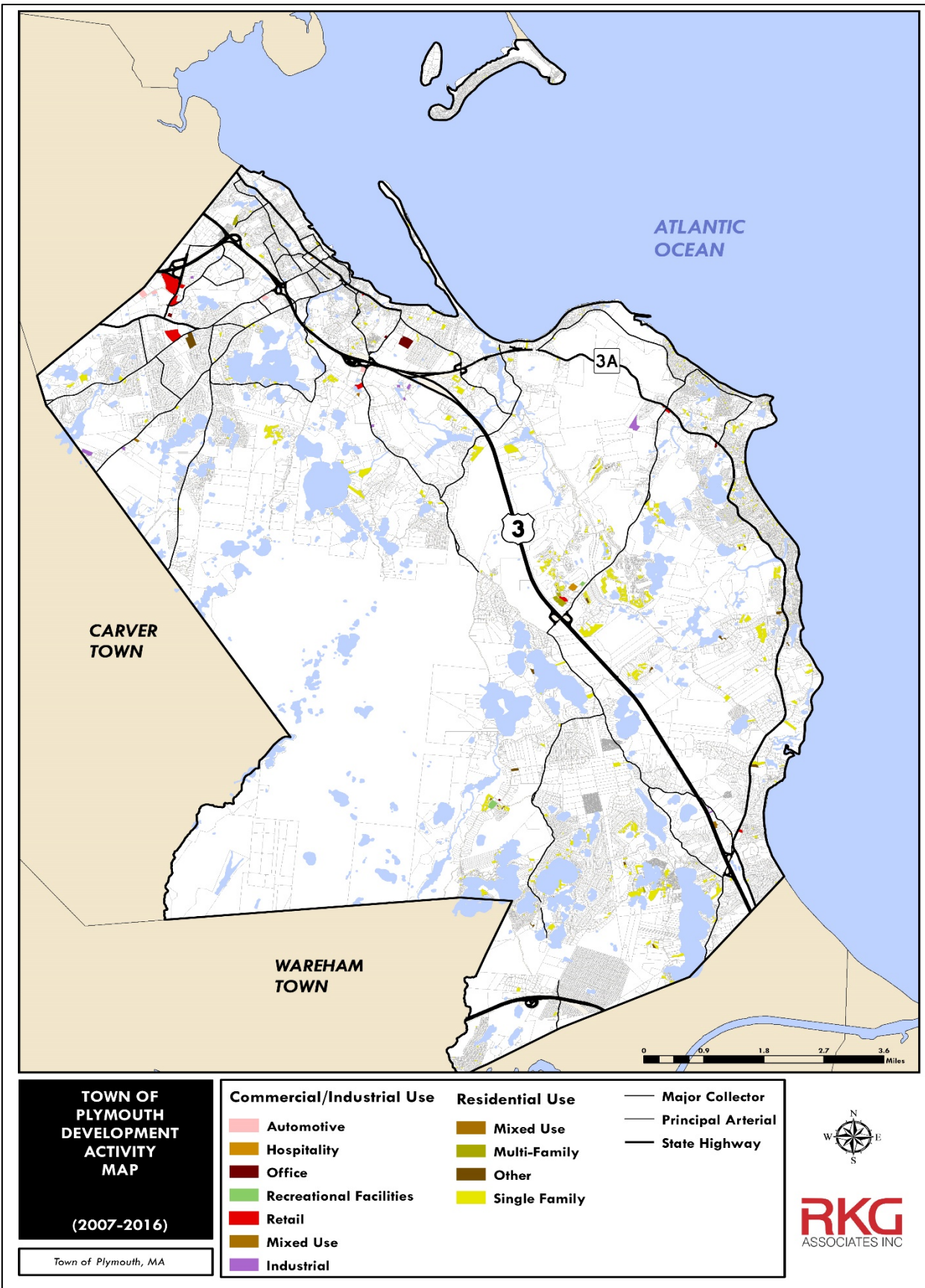
**Household Income Distribution by Percentage (2000 - 2021)
Town of Plymouth and Surrounding Region**

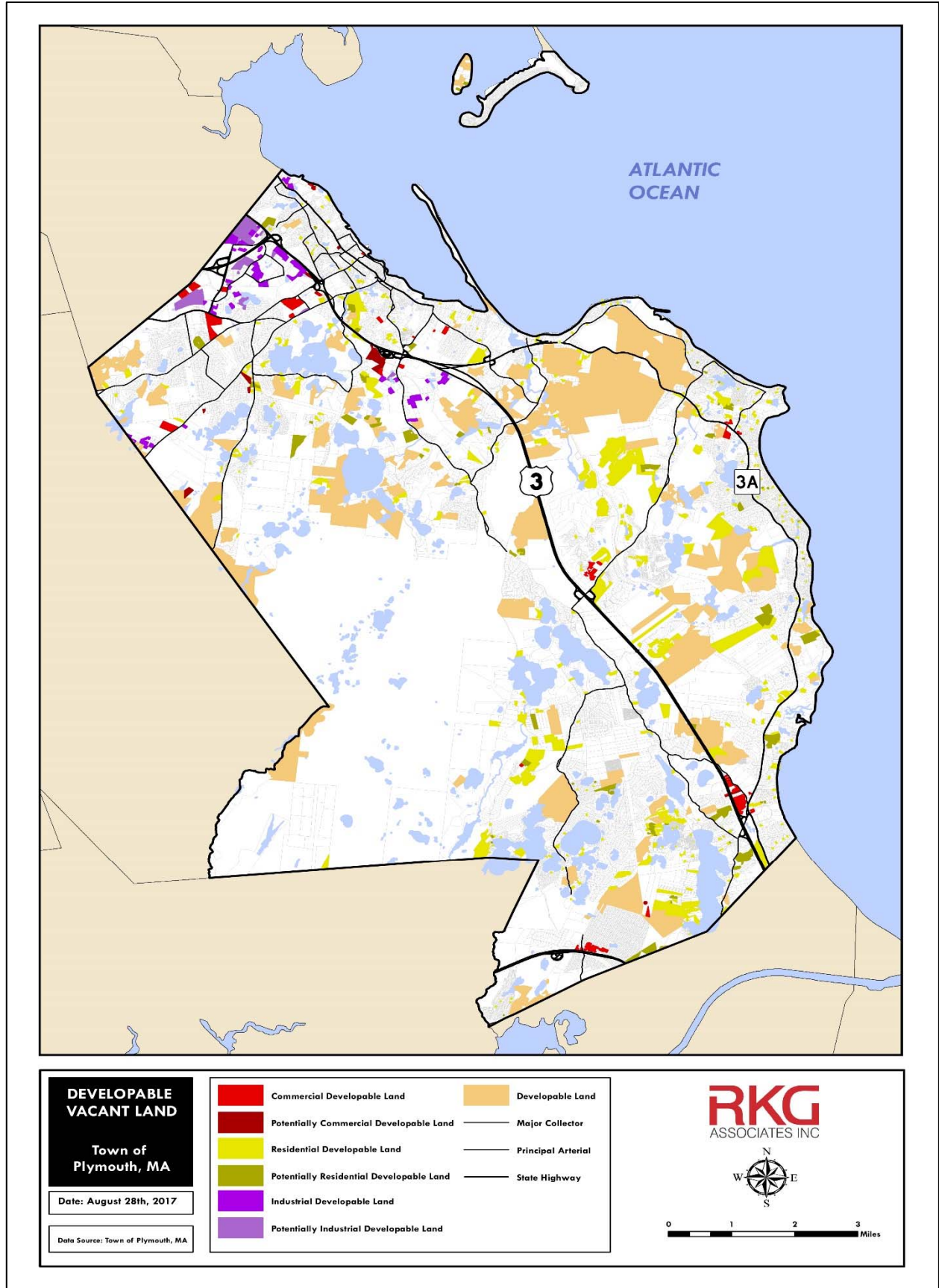
| | Kingston Town | | Marshfield Town | | Middleborough Town | | Wareham Town | | | | | |
|-----------------------|---------------|-------|-----------------|-------|--------------------|-------|--------------|-------|-------|-------|-------|-------|
| | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | | | | |
| | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | 2000 | 2016 | | | | |
| <\$15,000 | 9.8% | 6.5% | 8.6% | 4.7% | 4.8% | 7.5% | 10.6% | 7.5% | 8.0% | 17.2% | 11.5% | 12.6% |
| \$15,000 - \$24,999 | 9.7% | 6.2% | 7.4% | 4.5% | 4.2% | 4.9% | 7.6% | 4.9% | 4.6% | 13.7% | 8.9% | 8.4% |
| \$25,000 - \$34,999 | 8.8% | 5.7% | 6.7% | 4.4% | 3.6% | 6.5% | 10.9% | 6.5% | 5.9% | 13.2% | 8.4% | 7.8% |
| \$35,000 - \$49,999 | 18.1% | 10.1% | 13.5% | 8.0% | 7.9% | 11.3% | 16.9% | 11.3% | 12.1% | 17.6% | 13.2% | 13.2% |
| \$50,000 - \$74,999 | 22.4% | 15.7% | 21.1% | 15.8% | 11.1% | 18.5% | 29.1% | 18.5% | 11.9% | 18.6% | 18.3% | 12.7% |
| \$75,000 - \$99,999 | 14.3% | 14.1% | 17.9% | 14.3% | 14.8% | 16.2% | 15.0% | 16.2% | 17.5% | 10.9% | 14.9% | 16.7% |
| \$100,000 - \$149,999 | 8.3% | 17.9% | 15.3% | 20.2% | 22.0% | 25.8% | 8.7% | 22.7% | 25.8% | 5.8% | 15.5% | 17.9% |
| \$150,000 - \$199,999 | 6.8% | 11.7% | 5.5% | 12.4% | 14.6% | 9.3% | 0.6% | 8.0% | 9.3% | 1.3% | 5.0% | 6.0% |
| \$200,000+ | 1.9% | 12.1% | 4.0% | 15.9% | 17.2% | 4.4% | 0.7% | 4.4% | 4.9% | 1.7% | 4.3% | 4.8% |

Source: U.S. Census Bureau, Esri, RKG Associates, Inc., 2017

Note: 2000 income data based on 2000 Census Sample data. Total households may differ from those reported using the full dataset. 2016 and 2021 data from Esri projection.







On May 30, 2017, at 9:30 AM, Harper, Lynn (FWE) <lynn.harper@state.ma.us> wrote:

Hi, Matt,

That area was mapped in the 2008 version of the Priority Habitat of Rare Species maps for Eastern Box Turtle (Special Concern). In the draft map of Priority Habitat that is out for public comment through June 3rd, we have chosen not to regulate that site, because for many Special Concern species, we don't regulate populations we don't consider to be truly viable.

That's a long way of saying none of the Entergy property will be mapped as Priority Habitat and therefore regulated under MESA in the up-to-date version of the Priority Habitat map we expect to put out later this year (with the caveat that the Priority Habitat map may change as a result of public comment, and that publication of the updated map may be delayed for reasons beyond our control).

That's only the regulatory end of things, however. In terms of the overall biodiversity picture, however, we do still consider the Entergy property to have habitat for Eastern Box Turtle, as well as for Eastern Whip-poor-will (Special Concern; it wasn't even listed under MESA at the time of the 2008 Priority Habitat map). So, for example, if the Town applied for a LAND grant for the property, we would provide a comment letter saying the property has habitat for Eastern Box Turtle and Eastern Whip-poor-will (depending on what part of the property would be conserved). On the other hand, if someone were to propose developing subdivisions on the property, Natural Heritage would not regulate such development under MESA, at least at this moment.

As for what else you could survey for on the site, obviously you can look for more Eastern Box Turtles or Eastern Whip-poor-wills. The property is not likely to have the sort of rare species richness the pitch pine-scrub oak barrens of Myles Standish State Forest have, nor does it have any ponds that might be coastal plain ponds, with all their rare plants and damselflies. There is a little pond west of the ballfield on White Horse Road; it would be worth looking there for plants and damselflies. It would also be worth walking the north-south powerline to look for rare plants (*Liatris?* *Aristida purpurascens?* *Panicum rigidulum* ssp. *pubescens?* *Lycopodiella alopecuroides?* There could be others). The closed-canopy forest that covers most of the property probably doesn't have anything in the way of rare plants, but feel free to prove me wrong!

Lynn

Lynn Harper

Habitat Protection Specialist
Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife
1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6351 | f: (508) 389-7890
mass.gov/masswildlife | [facebook.com/masswildlife](https://www.facebook.com/masswildlife)

From: Creighton, Matthew T. [<mailto:mcreighton@bscgroup.com>]
Sent: Friday, May 26, 2017 1:51 PM
To: Harper, Lynn (FWE); DGould@townhall.plymouth.ma.us
Cc: Fasser, Jef
Subject: Town of Plymouth

Hi Lynn,

BSC recently had a meeting regarding the Entergy Land with the Town of Plymouth to discuss protection of various resource areas and potential economic strategies for the property. The Town's Marine and Environmental Affairs Director, David Gould was at the meeting (CCed on this email) and said he had spoken with you recently about updating maps for this property. We were hoping you would be able to provide information on what species is mapped on the southeastern portion of the property? I am conducting field evaluations of the site from an ecological/habitat/historic standpoint and any information you provide would help me look for potential habitat or species, while in the field. This information would be used by the Town when considering purchasing/developing/protecting the area. I have attached a map showing the area of mapped habitat within the property boundary.

I know in the past Heritage has provided this type of information free of charge to other Town's we have worked with and ask if you would be able to do the same here. Please let me know if you have any questions or need additional information.

Sincerely,

Matt Creighton

Matthew Creighton, PWS | Associate / Wetland Scientist

BSC Group

349 Route 28, Unit D | West Yarmouth | MA 02673
direct | 617-896-4591
main | 508-778-8919
cell | 401-480-9179



June 19, 2017

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

Robin Carver
Town Planner
Plymouth Planning & Development Department
Town of Plymouth
11 Lincoln Street
Plymouth, MA 02360

RE: Town of Plymouth Entergy Site, State Road, Powerhouse Road, Rocky Hill Road, Plymouth, MA.
MHC #RC.62532.

Dear Ms. Carver:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Project Notification Form (PNF) submitted by BSC Group, Inc., for the property referenced above.

The PNF indicates that no new construction is proposed within the property at this time. If new construction requires state and/or federal funding, licensing, permits or approvals, then separate PNFs should be submitted to the MHC for each project. The MHC encourages consultation with this office as project planning proceeds to assist to avoid, minimize or mitigate adverse effects to significant historic and archaeological resources.

Review of the Inventory of Historic and Archaeological Assets of the Commonwealth indicates that the property includes several recorded resources, including the Cleft Rock (MHC # PLY. 936) and the Manomet Site (19-PL-68; PLY.HA.59). Rocky Hill Road is noted in historical documents as following the route of a colonial period Native American trail through the Pine Hills/Manomet Highlands. The MHC would appreciate receiving additional information on the old farmhouse foundation referenced in the PNF.

These sites were identified during the 1974 archaeological survey for the Pilgrim Nuclear Power Station and have been more recently referenced in the 2007 Pilgrim Environmental Impact Statement. Information included in the MHC's files for these sites and the 1974 archaeological survey is incomplete. The 1974 archaeological survey appears to have been conducted for only a portion of the property referenced in the PNF.

Undisturbed portions of the property are archaeologically sensitive. This archaeological sensitivity is primarily due to environmental setting, with areas of level, well-drained soils in proximity to the wetlands and water resources of Cape Cod Bay, as well as upland areas in proximity to transportation corridors, favorable for ancient and historic period land use and occupation. Evidence of ancient and historic period Native American activities, and colonial period agricultural, industrial and residential activities, may be present within undisturbed portions of the property.

These comments are offered to assist in compliance with Massachusetts General Law, Chapter 9, Sections 26-27C (950 CMR 71). Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jonathan K. Patton".

Jonathan K. Patton
Staff Archaeologist/Preservation Planner
Massachusetts Historical Commission

xc: Matthew Creighton, BSC Group, Inc.
Plymouth Historical Commission

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